

CASE STUDY OF ROAD FUNDS IN GHANA, MALAWI & TANZANIA

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1. Introduction

Ghana, Malawi and Tanzania are each African countries that have established road funds in recent years. Ghana was one of the first countries in the world to establish one in 1985 and formed the model for many other countries, and established a Road Fund Board in 1997. Malawi established a Road Fund in 1997 as part of the National Road Authority. Tanzania established a Road Fund in the early 1990s although a dedicated Board and Secretariat did not come into place until 1999. A comparison of the countries' relevant statistics is given in Table 1 below:

Table 1: Global comparative statistics (2003)

| | Pop. | Roads | surface area | GDP | RF Revenue | Road Asset |
|-----------------|----------|---------|----------------------|-------------|-------------|-------------|
| | millions | km 000s | km ² 000s | \$ billions | \$ millions | \$ billions |
| Ghana | 21 | 49 | 238 | 6.2 | 75 | 4.6 |
| Malawi | 12 | 16 | 118 | 1.9 | 15 | 1.5 |
| Tanzania | 36 | 80 | 945 | 9.9 | 60 | 2.6 |

It can be seen that road assets form a major part of each country's wealth and in the case of Ghana and Malawi, their value approaches that of their annual GDP. Given this importance and each country's differing experience, this paper explores the status of the road sector and compares the operations of the Road Fund in each country. It comments on the levels of financing and how institutional arrangements have influenced the management and financing of the maintenance and development of their respective road networks. Conclusions are then drawn on what institutional arrangements are desirable for road funds and what measures could be put in place to increase accountability.

2. Ghana

2.1 Ghana Road Network

Data on Ghana's road network is given in table 2 below. Generally, about half the network is in good condition. Many visitors to Accra are pleasantly surprised at how good the city's main paved roads are. Another interesting statistic is how few unpaved trunk and urban roads are in good condition. Only about a third of the feeder road network is in good condition.

Table 2: Ghana's Road Network Length and Condition (2002)

| | Paved | | Unpaved | | Total | |
|---------------|-------|--------|---------|--------|--------|--------|
| | Km | % Good | km | % Good | Km | % Good |
| Trunk | 6,492 | 52 | 6,659 | 3 | 13,151 | 26 |
| Feeder | 1,097 | 55 | 31,497 | 31 | 32,594 | 32 |
| Urban | 1,935 | 39 | 2,128 | 13 | 4,063 | 25 |
| Total | 9,524 | 50 | 40,284 | 26 | 49,808 | 30 |

2.2 Legislation

In 1985 Ghana was one of the first countries in Africa to establish a Road Fund under an administrative arrangement (Legislative Instrument). However road maintenance continued to face difficulties such as irregular and insufficient releases, inadequate financial management system and in 1997 a “second generation” Road Fund came into place through a Road Fund Act. This established a Board with private and public sector participation. However, this legislation makes no provision for an independent secretariat. The legislation provides for the following Board:

- The Minister of Roads & Transport or representative – Chairman
- Minister for Finance or representative
- Minister for Mines & Energy or rep.
- Accountant General or rep.
- Minister for Local Gov. & Rural Dev. Or rep.
- Two persons outside Min. of Roads & Transport nominated by Minister
- One person from each of the following nominated by that organisation:
 - Association of Road Contractors
 - Ghana Private Road Transport Union
 - Ghana Private Enterprise Foundation
 - Ghana Road Haulage Association
 - Ghana Institute of Engineers
 - Ghana National Association of Farmers and Fishermen

2.3 Institutional set up of Road Fund

The Chief Director of the Ministry is Secretary to the Board. The secretariat resides in the Ministry of Roads and Transport under the Chief Director. It is headed by a Director supported by an engineer, two assistant engineers, an account, two assistant accountants and administrative staff. Although initially senior staff salaries were supported by World Bank funds, staff are now paid under the Ghana Universal Salary Structure. Donkor et al, 2003 made the following findings/recommendations:

- The Road Fund lacks a legal personality and should become a corporate body
- Eligible expenditures on the Fund should be widened to include data collection, planning, supervision and monitoring of works.
- Chairmanship of the Board should not be restricted to the Minister for Roads & Transport
- The RF Secretariat should report to the Board, be separate from Ministry and Director should become Executive Secretary
- Salaries may need to become higher than normal civil service
- Final approval of the Road Fund budget should rest with Ministry of Roads & Transport
- The classified road network has increased massively and there is a need to establish criteria and approval process for such increases.
- Fee increase policy for the fuel levy is not consistently applied
- Basis of allocation to agencies is not completely consistent and transparent
- Revenue base needs to be expanded and leakages plugged

2.4 Revenue & Disbursement

The fuel levy provides about 90% of Road Fund revenues with tolls, transit and license fees providing the rest. Between 1996 and 2003 the fuel levy varied between 3.7 and 6.5 equivalent US cents per litre. The total revenues are illustrated in figure 1 below. Over the

years expenditures match revenue although in 2004 there was a surge in expenditure (coinciding with election year). Ghana's Road Fund disbursements run about 3 months in arrears. Early this year the fuel levy was increased from equivalent US 4 cents to 6 cents per litre.

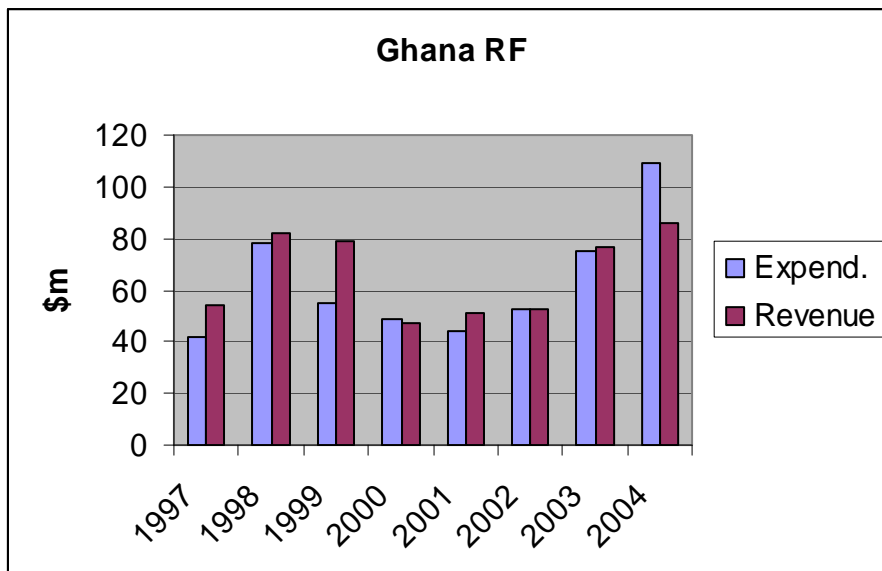


Figure 1: Ghana Road Fund Expenditure and Revenues

2.5 Road Fund Agency Allocations

Five agencies benefit from the Road Fund, namely:

- ❖ Ghana Highway Authority (GHA)
- ❖ Department of Feeder Roads (DFR)
- ❖ Department of Urban Roads (DUR)
- ❖ National Road Safety Commission (NRSC)
- ❖ Driver & Vehicle Licensing Authority (DVLA)

Figure 2 below shows that the relative share to the different agencies has varied considerably between 2000 and 2004. The main trend is the increase in share to Urban Roads.

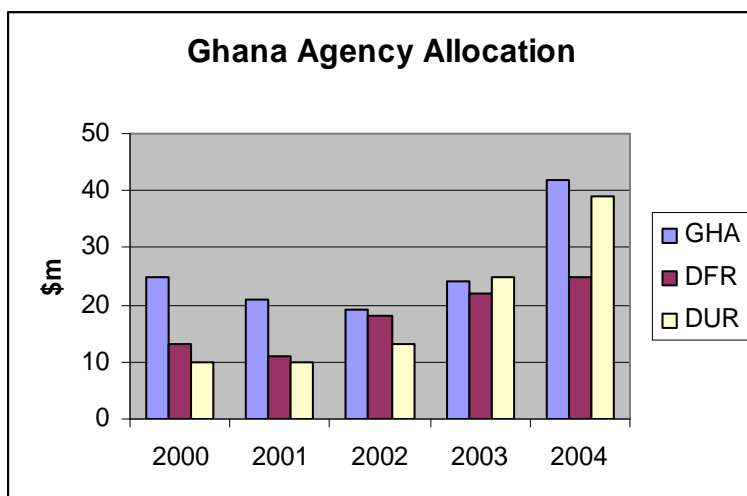


Figure 2: Ghana Road Fund Agency Allocation

Note: Other agencies receive around \$3m p.a. between them

However, this trend could well be a form of compensating for Development Partner funding where Urban Roads have received none as shown in figure 3 (albeit over a slightly earlier period). Allocations are decided jointly by the Ministry of Roads & Transport and the Road Fund Board on the basis of submissions made by the various agencies.

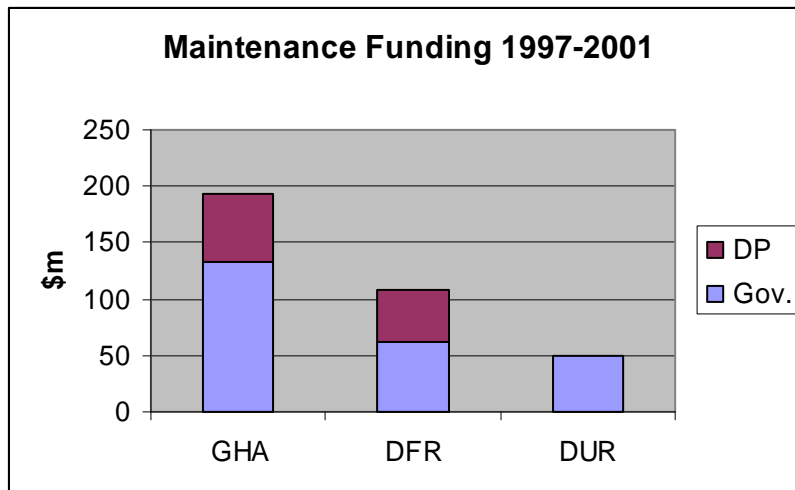


Figure 3: Government & Donor Funding to Agencies 1997-2001

2.6 Overall Road Sector Financing

Financing of the Road Fund should also be put in the context of overall road sector financing. Figure 4 below shows that in recent years, the Road Fund contributes 25%, Development Partners 44% with Government Consolidated Fund the remaining third. Given the new terminology, it is only natural that Development Partners contribute primarily to the development budget. However, this can lead to sub-optimal utilisation of resources where better economic returns are obtained from maintenance.

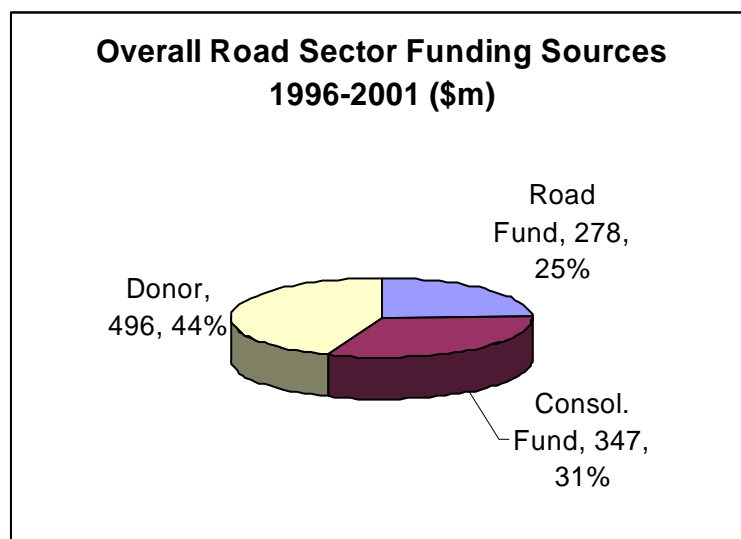


Figure 4: Ghana Road Sector Funding Sources 1996-2001

2.7 Road Fund Level of fund related to Road Asset Value

Table 3 below gives an approximate estimate of the replacement or asset value of the road network at just over \$4.6 billion. (A better estimate can be done by summing the value of the various components parts of the inventory and then deducting the amount required to bring them to good condition). Since current (2004) Road Fund revenue is around \$85m then this is 1.8% of asset value. This is below the UN Economic Commission for Latin and America's ECLAC²'s recommendation that between 2.5% and 3.5% of a road network's replacement value should be spent on maintenance.

[Metschies³ recommends 1.5, 3, 5 and 4 per cent of the asset value of paved, gravel, earth and urban roads be spend on maintenance respectively.]

Table 3: Road Network Asset/Replacement Value

| Condition | Paved | | | | Unpaved | | | |
|------------------------|-------|--------|--------|--------|---------|--------|--------|--------|
| | km | % Good | % Fair | % Poor | km | % Good | % Fair | % Poor |
| Trunk asphalt/concrete | 1,474 | 52 | 32 | 16 | | | | |
| Trunk surface dressed | 5,018 | 52 | 32 | 16 | 6,659 | 3 | 23 | 74 |
| Feeder | 1,097 | 55 | 28 | 17 | 31,497 | 31 | 19 | 15 |
| Urban | 1,935 | 39 | 27 | 35 | 2,128 | 13 | 10 | 77 |

| Rates (\$,000s/km) | Paved | | | | Unpaved | | | |
|--------------------------|-------|-------|------|------|---------|------|------|------|
| | km | Good | Fair | Poor | km | Good | Fair | Poor |
| Trunk (asphalt/concrete) | 1,474 | 800 | 500 | 100 | | | | |
| Trunk (surface dressed) | 5,018 | 400 | 200 | 80 | 6,659 | 100 | 50 | 20 |
| Feeder | 1,097 | 300 | 150 | 50 | 31,497 | 50 | 30 | 10 |
| Urban | 1,935 | 1,000 | 600 | 150 | 2,128 | 60 | 30 | 10 |

| Asset/Replacement Value (\$m) | Paved | | | | Unpaved | | | | \$m Total |
|-------------------------------|-------|-------|------|------|---------|------|------|------|-----------|
| | km | Good | Fair | Poor | km | Good | Fair | Poor | |
| Trunk asphalt/concrete | 1,474 | 613 | 236 | 24 | | | | | 873 |
| Trunk surface dressed | 5,018 | 1,044 | 321 | 64 | 6,659 | 20 | 77 | 99 | 1,624 |
| Feeder | 1,097 | 181 | 46 | 9 | 31,497 | 488 | 180 | 47 | 951 |
| Urban | 1,935 | 755 | 313 | 102 | 2,128 | 17 | 6 | 16 | 1,209 |
| Totals | 9,524 | 2,593 | 917 | 199 | 40,284 | 525 | 262 | 162 | 4,657 |

2.8 Comments

The existence of the Road Fund in Ghana has ensured that road maintenance financing has been kept to reasonable levels although increases in the levels of finance tend to be jumps rather steady increases. However, levels of funding are still below that required.

The Donkor report recommendations have yet to be implemented. It raises the question about who should be Chairman of the Board and suggests this should not be restricted to Minister for Roads and Transport. The other recommendation not yet effected is to set up the Secretariat from outside the Ministry.

The allocation of funds to the various agencies appears to be variable and subject to negotiation between the Ministry, the Board and the agencies themselves. How decisions are made is not clear. The proportions to each agency vary considerably from year to year and the



trend has been an increase in the urban road allocation relative to the feeder road. However, this trend may be largely a compensation for donor preferences.

Funding for development projects in the road sector is still about three times that for maintenance from the road fund. The condition and extent of the network has yet to stabilise with many roads remaining in poor condition, whilst new ones come on stream.

3. Malawi

3.1 Malawi Road Network

Malawi has a road network of about 15,400km as shown in table 4 below. This network is not static and a recent classification study suggests that there may be another 5,000km or more local roads to be added to the list.

Table 4: Malawi Road Network (2003)

| Road Class | Pavement Type | | Total (km) |
|--------------|---------------|---------------|---------------|
| | Paved (km) | Unpaved (km) | |
| Main | 2,675 | 682 | 3,357 |
| Secondary | 285 | 2,840 | 3,125 |
| Tertiary | 44 | 4,077 | 4,121 |
| District | 8 | 3,492 | 3,500.4 |
| Urban | 770 | 578 | 1,348 |
| Total | 3,774 | 11,677 | 15,451 |

Road condition is shown in table 5 below. Since the creation of NRA, the paved network has improved considerably although the unpaved roads remain mainly fair or poor.

Table 5: Malawi Road Network Condition

| Condition % | Paved | Unpaved |
|-------------|-------|---------|
| Good | 70 | 13 |
| Fair | 24 | 40 |
| Poor | 6 | 47 |

3.2 Legislation

Malawi's Road Fund was created under the National Road Authority Act 1997. The same act established the NRA Board and the main Authority was termed the "Secretariat". The Chairperson of the Board and three members representing the public are selected by the President. Permanent Secretaries for Works, Finance and local Government are members along with representatives from Road Transporters Association, Taxi Drivers Association, Tobacco, Tea and Sugar Growers, National Construction Industry Council, National Road Safety Council, Chamber of Commerce, and two civil servants from Ministries of Works and Finance.

3.3 Institutional

The Road Fund is managed by a Director of Finance who also covers finance of works operations and reports to the Chief Executive NRA who reports to the NRA Board. Also

reporting to Chief Executive are the Operations Director managing all roads and an Administrative officer. Staff are employed under three year contracts and paid comparable salaries to the private section. The Board has two sub-committees, namely finance and technical. In practice most of the members of the Board are either civil servants or political appointees since the Chairman of the council are also appointed by the President. Recent Chairman of the Board have been former Members of Parliament and also Treasurer of the ruling party. The current structure of the NRA is given in figure 5 below:

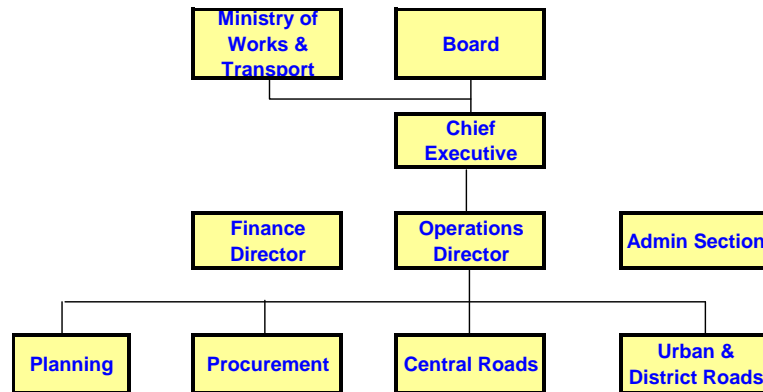
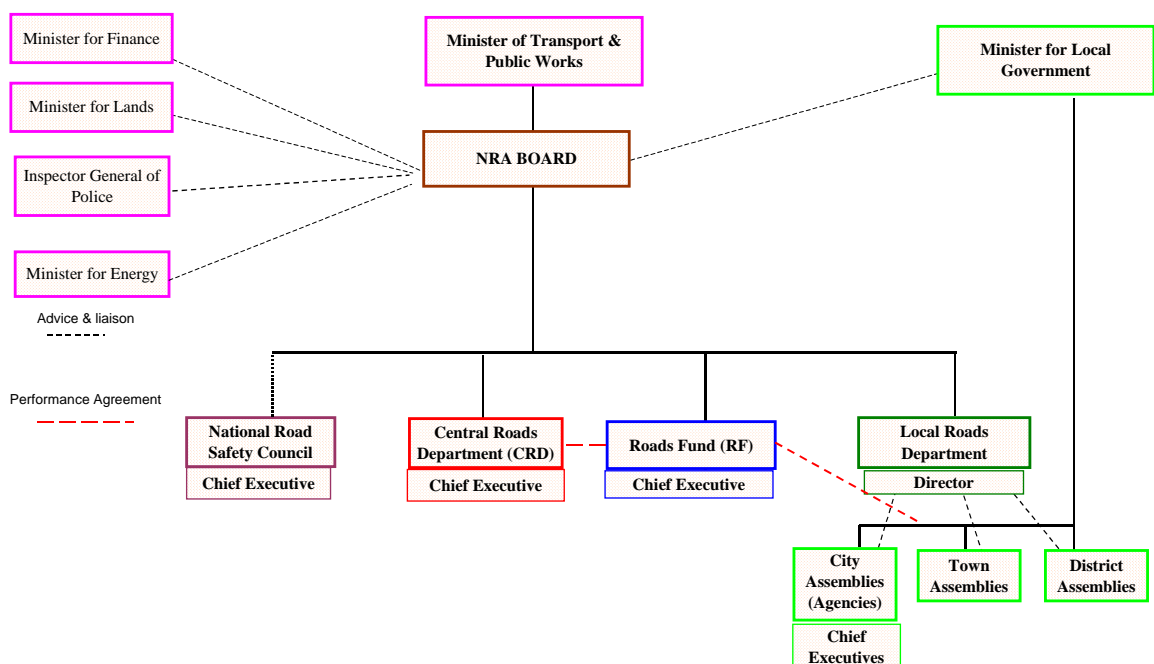


Figure 5: Organisation Structure of Malawi National Road Authority

A report on restructuring the National Road Authority in 2003 stated that, “The weakness of the current system of combining operations and finance is that it reduces accountability and efficiency. A separate Road Fund should be established where the Road Fund is the buyer of services and the Road Agencies are sellers of services, governed by a Performance Agreement (similar to a contract). It proposed a new organisation structure as shown in figure 6 below and it is understood that something similar to this will be in place by July 2005.

Figure 6: Structure of NRA Proposed by Task Force (2003)



3.4 Revenue & Disbursement

Revenues to the Road Fund in Malawi have varied in US dollar terms as seen in figure 7 below. Fuel imports are generally constant and the levy is fixed. The steady decline shown between 01/02 and 03/04 in dollar terms was due to exchange rate change where the kwacha revenue was in fact constant. The recent increase has largely been the result of strong pressure from Development Partners, particularly the European Union and the World Bank.

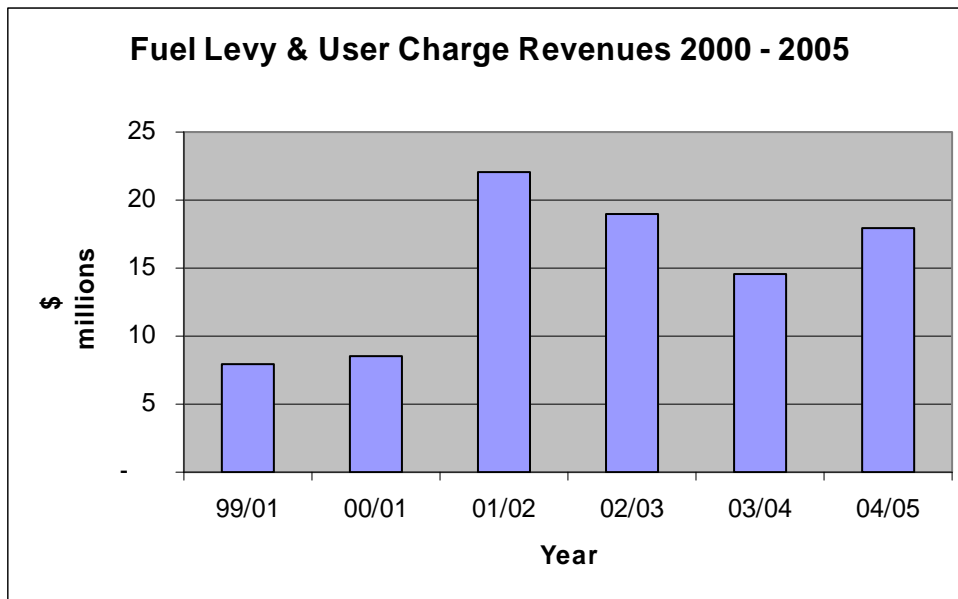


Figure 7: Malawi Road Fund Revenues

Figure 8 below shows the relative expenditure on Central Roads, Local Roads, and other expenses such as salaries, supervision and office costs over a three year period.

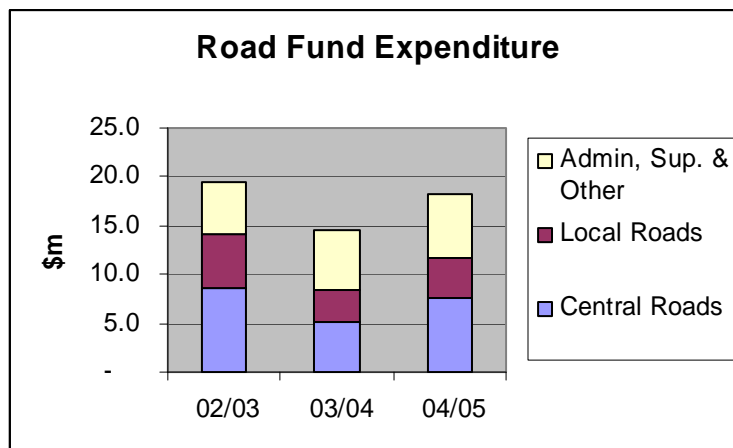


Figure 8: Malawi Road Fund Expenditure

3.5 Malawi Development Expenditure

It can be seen in figure 9 below that Malawi development expenditure relies heavily on donor contributions. The amount of this spending is between 150% and twice that for maintenance.

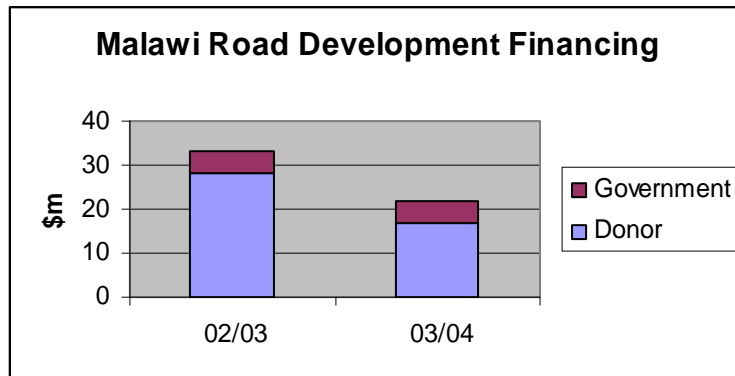


Figure 9: Malawi Road Development Financing

3.6 Road Fund Level of fund related to Road Asset Value

Table 6 below provides a rough estimate of the replacement or asset value of the road network. The total asset value is around \$1.5 billion. Since maintenance expenditure is around \$17.m, the proportion of maintenance to asset value of 1.1% is well below the ECLAC recommendation of 2.5%-3.5%. However, account should be taken of the low traffic levels in the country.

Table 6: Asset Value of Malawi Road Network

| Condition % | Paved | Unpaved |
|-------------|-------|---------|
| Good | 70 | 13 |
| Fair | 24 | 40 |
| Poor | 6 | 47 |

| Rate \$000s | Paved | Unpaved |
|-------------|-------|---------|
| Good | 400 | 50 |
| Fair | 200 | 30 |
| Poor | 80 | 10 |

| Value \$m | Paved | Unpaved | Total |
|-----------|-------|---------|-------|
| Good | 1,057 | 76 | 1,133 |
| Fair | 181 | 140 | 321 |
| Poor | 18 | 55 | 73 |
| Total | 1,256 | 271 | 1,527 |

3.7 Comment

The management and financing of Malawi’s paved road network has improved following the creation of the NRA in 1997. The network condition over recent decades has generally been better than that of a number of its neighbours and remains so, perhaps reflecting the relative low traffic levels, small and compact nature of the country and relatively high donor inputs.

In recent years the flaws in the institutional set up of NRA have become apparent. Initially the Board was selected on the basis of technical competence, but recently many of the members chosen were on the basis of political influence. In the early 2000s, the Board Chairman, a former Member of Parliament, appeared to be under the control of the Chief Executive who paid him Board sitting allowances for every day of the month. Critical decisions appeared to be made by the Chief Executive, Board Chairman and Minister with other Board members concerns largely sidelined. Briefly, the ruling party’s Treasurer became Chairman of the Roads Board. However, the situation is changing with the election of a new President who is trying to reduce corruption and has replaced many of the top officials in various sectors.

4. Tanzania

4.1 Road network

A decade ago Tanzania had one of the worst road networks in southern and eastern Africa. Many of the city roads in Dar es Salaam were heavily potholed. Long sections of the main paved arterial route to Zambia from Dar, the TANZAM highway, had long stretches of broken up tarmac. Today Dar es Salaam’s main city roads and the TANZAM highway is in good condition. Details of the road condition as reported by TANROADS, Tanzania’s national road agency are given in table 7 below.

Table 7: Tanzania Trunk & Regional Road Condition (December 2004)

| Category | Good km (%) | Fair km (%) | Poor km (%) | Total km |
|-----------------------|-------------|-------------|-------------|-----------|
| Trunk roads | | | | |
| Paved | 62 | 31 | 7 | 3,913.77 |
| Unpaved | 39 | 40 | 21 | 6,020.56 |
| Regional Roads | | | | |
| Paved | 74 | 23 | 3 | 327.45 |
| Unpaved | 40 | 35 | 25 | 18,629.94 |

Tanzania, being a large country has a long network of local roads as shown in table 8 below. Unfortunately, much of this local road network is still in poor condition as illustrated in figure 10.

Table 8: Tanzania Local Road Lengths

| | Paved (km) | Unpaved (km) | Total (km) |
|----------------|------------|--------------|------------|
| District Roads | 30 | 19 970 | 20 000 |
| Feeder Roads | 0 | 27 550 | 27 550 |
| Urban Roads | 470 | 1 980 | 2 450 |

PORALG is to conduct a road inventory and condition survey financed by the World Bank this year. A correct road network of length for District, Feeder and Urban roads will be obtained.

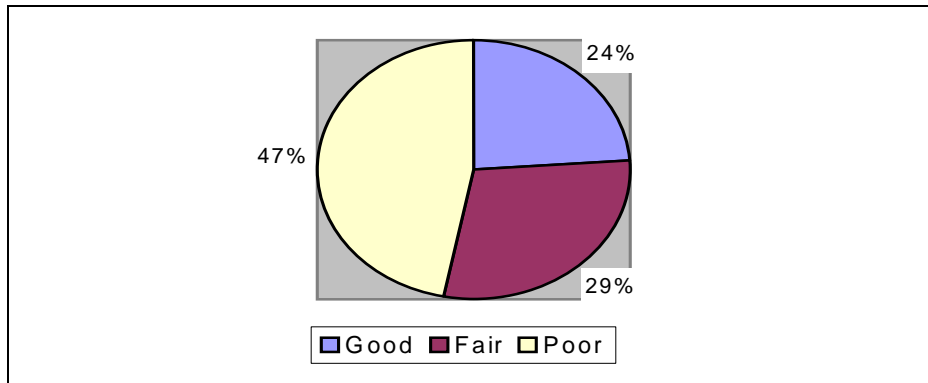


Figure 10: District & Urban Road Condition (2004)

4.2 Legislation

The Road Fund in its current form came into operation in 2000. The Road Fund was established in terms of the Roads Toll (Amendment) No. 2 Act, 1998 which amended the Roads Tolls Act, 1985. A Roads Fund Board was also established to exercise the functions with respect to the Fund. The Amendment Act provides for the appointment of a Road Fund Manager and a Road Fund Accountant. The Fund is mandated to use at least 90% of the money paid into the Fund for maintenance and emergency repair of classified roads and related administrative costs in Mainland Tanzania. Furthermore the Fund shall use not more than 10% of the Fund's money for roads development and related administrative costs in Mainland Tanzania.

The main agency that benefits from the Road Fund is TANROADS. This organisation was set up under the Executive Agencies Act 1997 and the Establishment Order became operational in July 2000. The Road Fund allocates 63% of its funding to Tanroads for maintenance of the trunk and regional road network, 7% to Ministry of Works for development projects on Trunk and Regional Roads and 30% to PORALG for local roads.

4.3 Institutional Arrangements

The Road Fund has its own dedicated Secretariat reporting to the Road Fund Board, lead by a Road Fund Manager supported by two engineers and two accountants. According to the Act, the Board that oversees the Road Fund must comprise of the following individuals, appointed for 3 years terms:

- A Chairman, appointed from the private sector;
- The Permanent Secretary for the MoW (ex-officio);
- The Permanent Secretary for the MoF (ex-officio);
- The Permanent Secretary for PORALG (ex-officio);
- A Senior Civil Servant appointed by the Ministry responsible for roads;
- Four road user representatives appointed by the roads Minister from among the following sectors, institutions or associations:
 - The road transport industry;
 - Tourism industry;
 - Tanzania Chamber of Commerce, Industry & Agriculture;
 - Confederation of Tanzania Industries;
 - The National Co-operatives Organisation; and
 - Any other organisation of road users with no potential conflict of interest.

The current legislative arrangement is considered inadequate by a number of stakeholders and a Draft Road Act has been under preparation for a number of years that would integrate the various pieces of legislation and firm up on the classification of roads. This draft aims at reviewing and repealing the Highways Ordinance Cap 167 last amended in 1969. The Act of 1969 did not allow for the financing and management of road works thus making it difficult to secure adequate resources to develop the road network in the country. The draft new Act will recognise the Roads Tolls (Amendment) No. 2 Act of 1998 establishing the Roads Fund, and which specifically caters for the source of funds for the maintenance of the whole classified road network. It will also recognise the Executive Agencies Act, 1997 that established the Management Advisory Boards for TANROADS at National Level. The Act seeks to establish the National Roads Board at National and Regional level to cater specifically for the network development and management with the service purchaser on one hand while the service provider becomes the Road Fund Board on the other. It furthermore establishes clear relationships with other stakeholders. However, this Act will probably not be in place until 2006.

4.4 Revenue & Disbursement

Figure 11 below shows the flow chart for road sector financing and management. It can be seen that 30% of the road fund goes to local authorities, 63% to TANROADS for maintenance, and 7% to Ministry of Works for development. All of these transfers of money are governed by Performance Agreements. The vertical and horizontal lines demarcate the functions of Maintenance, Development and Execution.

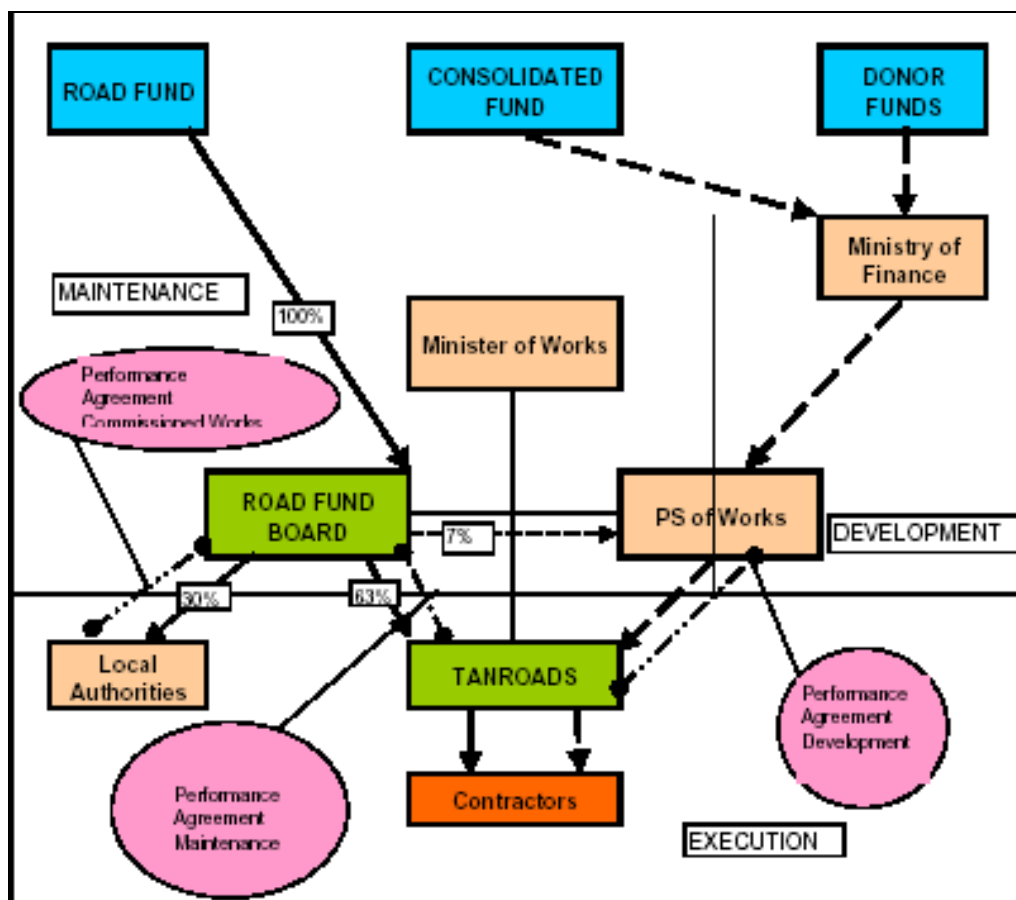


Figure 11: Financing & Governance of Road Sector Tanzania

These Performance Agreements govern the relationship between the financier and implementer. It is presented as a legal style document signed by both parties. They contain information on respective responsibilities of parties concerned, policies, definitions of terms, performance indicators with means of verification, agency's action plan, reporting requirements and a budget giving details of works to be undertaken during that financial year. Hence these agreements operate in a similar way to a legal contract and create a semi-commercial business like environment.

Some of the funds allocated to the Ministry of Works for development are transferred back to TANROADS for development projects. TANROADS are responsible for the implementation of most development projects although the Ministry still manage some of them.

The 30% of the Road Fund allocated to local roads is coordinated by the President's Office for Local Government and the Regions (PORALG). 10% of that sum is earmarked for development and the remainder to maintenance. This causes some problems at this level since as shown in figure 10 around 70% of local roads are in poor condition and the bulk of the work needed is in fact rehabilitation or improvement. The Road Fund pays money direct to each of the 113 (soon to be 121) local councils for maintenance according to a formula agreed with PORALG. Currently, this formula takes into account population, road length and equity with the largest factor being equity (each administration gets an equal share). There is some criticism that this arrangement does not reflect actual need or capacity to spend but local councils are now assured of a consistent and regular level of finance for road maintenance. This means that the opportunity to build capacity at a local level is now present and the Government's decentralisation policy is enhanced. In local currency terms (even when converted to dollars) the increase in finance for road maintenance at local government level has been dramatic over recent years as shown in figure 12 below. As well as that the money now passes straight to local government with PORALG headquarters controlling directly only 1% for its administration and 3% for development projects of the local component.

DISBURSEMENTS TO PORALG SINCE FY 1991/92

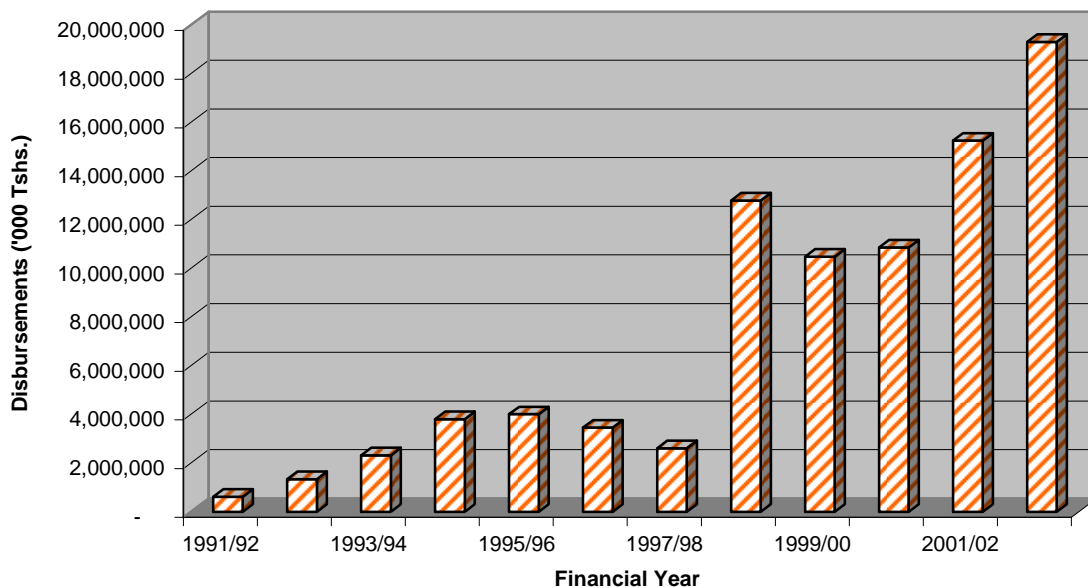


Figure 12: Tanzania Local Government Disbursements

The performance Agreement between the Road Fund and TANROADS & PORALG for 2004/5 allocates Tsh 45.8 billion and Tsh 21.8 billion respectively equivalent to approximately \$45m and \$21m. These Performance Agreements include breakdowns of expenditure, agencies action plan, reporting requirements and performance indicators. Tanzania also has a large development programme supported by various partners and together with Government consolidated budget spends around twice that of the Road Fund.

4.5 Asset Value of Network

Table 8: Asset Value of Road Network

| Condition | | | | |
|-----------------------|----------|----------|----------|----------|
| Category | Good (%) | Fair (%) | Poor (%) | Total km |
| Trunk roads | | | | |
| Paved | 62 | 31 | 7 | 3,914 |
| Unpaved | 39 | 40 | 21 | 6,021 |
| Regional Roads | | | | |
| Paved | 74 | 23 | 3 | 327 |
| Unpaved | 40 | 35 | 25 | 18,629 |
| District | | | | |
| Paved | 24 | 29 | 47 | 30 |
| Unpaved | 24 | 29 | 47 | 19,970 |
| Feeder | | | | |
| Unpaved | 24 | 29 | 47 | 27,550 |
| Urban | | | | |
| Paved | 24 | 29 | 47 | 470 |
| Unpaved | 24 | 29 | 47 | 1,980 |

| Rates US\$ 000s per km | | | | |
|------------------------|-------|------|------|----------|
| Category | Good | Fair | Poor | Total km |
| Trunk roads | | | | |
| Paved | 400 | 200 | 100 | 3,904 |
| Unpaved | 40 | 20 | 10 | 6,141 |
| Regional Roads | | | | |
| Paved | 300 | 150 | 80 | 245 |
| Unpaved | 30 | 15 | 5 | 18,220 |
| District | | | | |
| Paved | 300 | 150 | 60 | 30 |
| Unpaved | 25 | 10 | 5 | 19,970 |
| Feeder | | | | |
| Unpaved | 20 | 10 | 5 | 27,550 |
| Urban | | | | |
| Paved | 1,000 | 600 | 150 | 470 |
| Unpaved | 40 | 20 | 10 | 1,980 |

| Asset Value \$m | | | | | |
|-------------------------------------------|------|------|------|----------|--------------|
| Category | Good | Fair | Poor | Total km | Total |
| Trunk roads | | | | | |
| Paved | 968 | 242 | 27 | 3,904 | 1,238 |
| Unpaved | 96 | 49 | 13 | 6,141 | 158 |
| Regional Roads | | | | | |
| Paved | 54 | 8 | 1 | 245 | 63 |
| Unpaved | 219 | 96 | 23 | 18,220 | 337 |
| District | | | | | |
| Paved | 2 | 1 | 1 | 30 | 4 |
| Unpaved | 120 | 58 | 47 | 19,970 | 225 |
| Feeder | | | | | |
| Unpaved | 132 | 80 | 65 | 27,550 | 277 |
| Urban | | | | | |
| Paved | 113 | 82 | 33 | 470 | 228 |
| Unpaved | 19 | 11 | 9 | 1,980 | 40 |
| Total Asset Value of whole network | | | | | 2,569 |

The estimated asset value of Tanzania's road network is about 2.6 billion dollars as estimated in table 8 above. The Road Fund allocates around \$66m per annum to the network which is about 2.6% of the asset value. This is close to the ECLAC recommendation of 2.5% to 3.5%.

4.6 Comment

Tanzania has made good progress in recent years following the creation of the Road Fund Board and TANROADS. The road network has improved and funding has increased from Tshs. 47.3 billion in FY 2000/2001 to Tshs. 73.4 in FY 2003/04 and maintenance budgets are fully met. The existence of Performance Agreements between the Road Fund Board and the implementing agencies has improved accountability and local roads now receive significant funds for maintenance. However, funds are still insufficient to maintain the roads particularly due to a large backlog of maintenance works. There is also some uncertainty about the full extent of the network.

5. Conclusions

These conclusions are not made through a rigorous scientific analysis of the data above. However, the information provided allows readers to have an overview of the relative status of road maintenance financing in the three countries. For Ghana, conclusions draw heavily upon the Donkor report and experience gained from short term assignments over the last year. The author recently spent 1.5 years as Team Leader for a TA team to NRA in Malawi, attended many Board and Committee meetings and participated in a Task Force reviewing the structure of the NRA. Previously he spent 7.5 years in Tanzania in the 1990s and was part of the Minister's Task Force setting up the country's Road Fund and Tanroads, and this year lead a team assessing the feasibility of Danida's planned support to the road sector.

Road Funds have improved road maintenance financing in all the three countries although problems remain with maintaining the value of the fuel levy over the years. There is a tendency for funding levels to get stuck for a few years and then jump to a higher level. However, the key area of concern is the accountability of the Road Fund Board and autonomy of the Secretariat. There is a risk that Road Fund Boards become political with decisions made by very few individuals and the Civil Service and Parliamentary processes bypassed.

Ghana's road financing management has made only modest improvements. Although it has a dedicated unit as a secretariat it is still much part of the Civil Service. Ministers are strongly represented on the Board. Annual reports are not produced regularly.

Malawi's management of road finance has probably got worse in recent years. The Board decision making process has become very political although regular Board meetings were held and issues openly discussed by Board members. There is no separate unit to manage the Road Fund.

Tanzania's financial management has improved since the Road Fund is an autonomous and quazi-commercial organisation with agencies working under Performance Agreements. The country's decentralisation efforts have also been enhanced by disbursing funds direct to local authorities through an agreed formula. These allocations have been transparent and published in the local press. Annual reports have been produced by the Road Fund regularly although recently these have begun to lag.

It is concluded that Road Funds should have their own identity. The Tanzanian model is perhaps the best with the Fund set up as a separate organisation. Next follows the Ghana model where the fund is a separate unit in its Ministry. The least desirable option is Malawi

where the Fund is part of the agency implementing works. In all three cases funding is below the desirable levels using road asset value as a bench mark. However, it should be recognised that other factors have to be taken into account such as the country's overall economy and the demand for road services in terms of traffic levels.

During the Task Force on restructuring the NRA in Malawi, the lawyer advising the team proposed setting up the Road Fund Board as a Trust, although this recommendation was not taken up. Such a Trust would not report to a particular Minister or Ministry. However, it would be mandated to operate by Government and have a Memorandum of Understanding with Government that provides financing and gives conditions on how that money should be spent. The Trust would have a constitution or articles of association governing its operations. The Chairman would be appointed by its own Board and members appointed at an Annual General Meeting of stakeholders. These stakeholders would include representatives from relevant Government and Civil institutions and associations. Such an arrangement may ensure that Road Users maintain their status as the customer in the sector.

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