

Assessment of Selected Road Funds in Africa

Road Management Initiative (RMI)
Sub-Saharan Africa Transport Policy Program (SSATP)

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Summary of Presentation

- Micro-economic rationale
- The RMI focus; >16 countries in SSA have established a RF
- Study focus on: Benin, Ethiopia, Ghana, Kenya, Malawi and Zambia, with relevant examples drawn from other countries
- Presentation structured in three parts:
 - Roads Board **Structure** (management focus, legal basis, user participation)
 - **Process** (adequacy and stability, performance monitoring)
 - Objective **Achievements** (road quality, resource allocation, operational efficiency, capacity of local const. Industry)
- Issues
- Key Lessons

Rationale: Principles of 2nd Generation RMFs

1st Generation

State Budget

Finance Act

Ministries in charge of expenditure

Road maintenance was an item of expenditure in the State budget, financed by tax revenue allocated according to more or less pre-defined priorities

2nd Generation

Roads Board

Fuel levy
+ user fees

Allocation criteria

Road Authorities

The government gets out of road maintenance, the financing of which is entrusted to a new autonomous body jointly managed with road users. This body (Board) directly manages user fees paid by user in exchange for service.

STRUCTURE

- Does the structure introduce professional management run according to sound business practices?
- Does the Board have adequate user representation?
- Does the Board have a firm legislative basis with clear TOR?

Structure

	Legal basis	Date of establish.	Board Structure (total/public)	Board Chairman	Board Secretariat	Functions
Benin	Exec Bd	96	9/4	Minister	3	administer & manage RF determine priorities procure services
Ethiopia	Exec Bd	97	15/11	Minister	9	manage RF; procure
Ghana	Exec Bd	97	13/5	Minister	3	manage RF; procure; determine priorities
Kenya	Exec Bd	00	12/5	Pvt. Sec		manage RF determine priorities
Malawi	Exec Bd	98	12/3	Pvt. Sec	6	manage RF; procure & provide services
Mozam.	Exec Bd	99	11/6	Minister		manage RF; procure & provide services
Zambia	Advisory	94	11/4	Pvt. Sec	8	manage RF; coordinate planning; procure services

Structure: Performance

- **Zambia**--Pvt/user dominated board; professional mgmt; *but*, lack of adequate legal basis; functions overlap with road agencies; less able to protect stability and allocation of resources; lack of clear prioritization of maintenance expenditure
- **Ethiopia**--public sector dominated; strong legal basis; professional mgmt; able to protect resource stability; clearly defined functions; *but*, inadequate performance monitoring
- **Malawi**--well-defined legal basis; pvt/user dominated board; *but*, conflict in roles as both procurer & provider of services; lack of clear prioritization of maint. exp; roles of public & pvt sectors not well defined
- **Ghana**--pvt sector dominated board; well-defined legal basis; professional mgmt; *but*, lack of clear prioritization
- **Mozambique**--public sector dominated board; ability to generate adequate resources; *but*, conflicting functions; lack of clear focus; overlapping of procurer and provider functions

Overall, reform process enjoys widespread public support & activities are shared widely (transparent allocations, annual reports, media)

PROCESS

- Has the RF succeeded in stabilizing road financing by securing an adequate and stable flow of funds?
- Have the reforms guaranteed security of assigned revenue streams and designated allocation of expenditures?
- What are the arrangements to monitor the performance of the flow of funds?

Process: Adequacy and Stability

Changes in Road Maintenance Expenditure

	FY94	FY99
Zambia	< \$3m	> \$5m
Malawi	\$2.7m	\$10m
Ghana	\$14.6m	\$86m
Ethiopia	\$10m	\$17m

Experience: Funding for maintenance shows improvement over past

Process: Adequacy and Stability

	RF/Total Maint. Requirement	RF/Total Maint. Expenditure
Ethiopia	70%	90%-100%
Ghana	90%	100%
Zambia	30%	90%
Malawi	50%	90%
Mozambique	90%	
Kenya	50%	

(Excluding deferred maintenance and rehabilitation)

Process: Adequacy and Stability

	Zambia	Ghana	Ethiopia	Malawi	Kenya	Benin
Fuel levy (00)	3c	8c	1c	4.0c	3c	2.5c
FL % of RF	95%	94%	35%	95%	100%	23%
RF receipts	\$6.7m	\$80m	\$25m	\$14m		\$6.7m
Disbursement	\$5m	\$75m	\$15m	\$10m		\$5.8m
Ratio	75%	94%	60%	71%		87%
Transfer time into RF	2/3m	1m	3/4m	1.5m		4m

Process: Adequacy and Stability

Changes in Fuel Levy Over Time

(per liter in US cents)

	1994	1995	1996	1997	1998	1999	2000	01
Zambia	1.8	4.4	4.3	4.2	3.8	3.5	3.0	6.7
Malawi					4.0	4.0	4.0	
Ethiopia*					3.5	3.5	4.6	5.8
Ghana			4.0	5.0	6.0	7.0	8.0	

* fuel levy for Ethiopia includes dedicated sales and municipality tax

Process: Adequacy and Stability

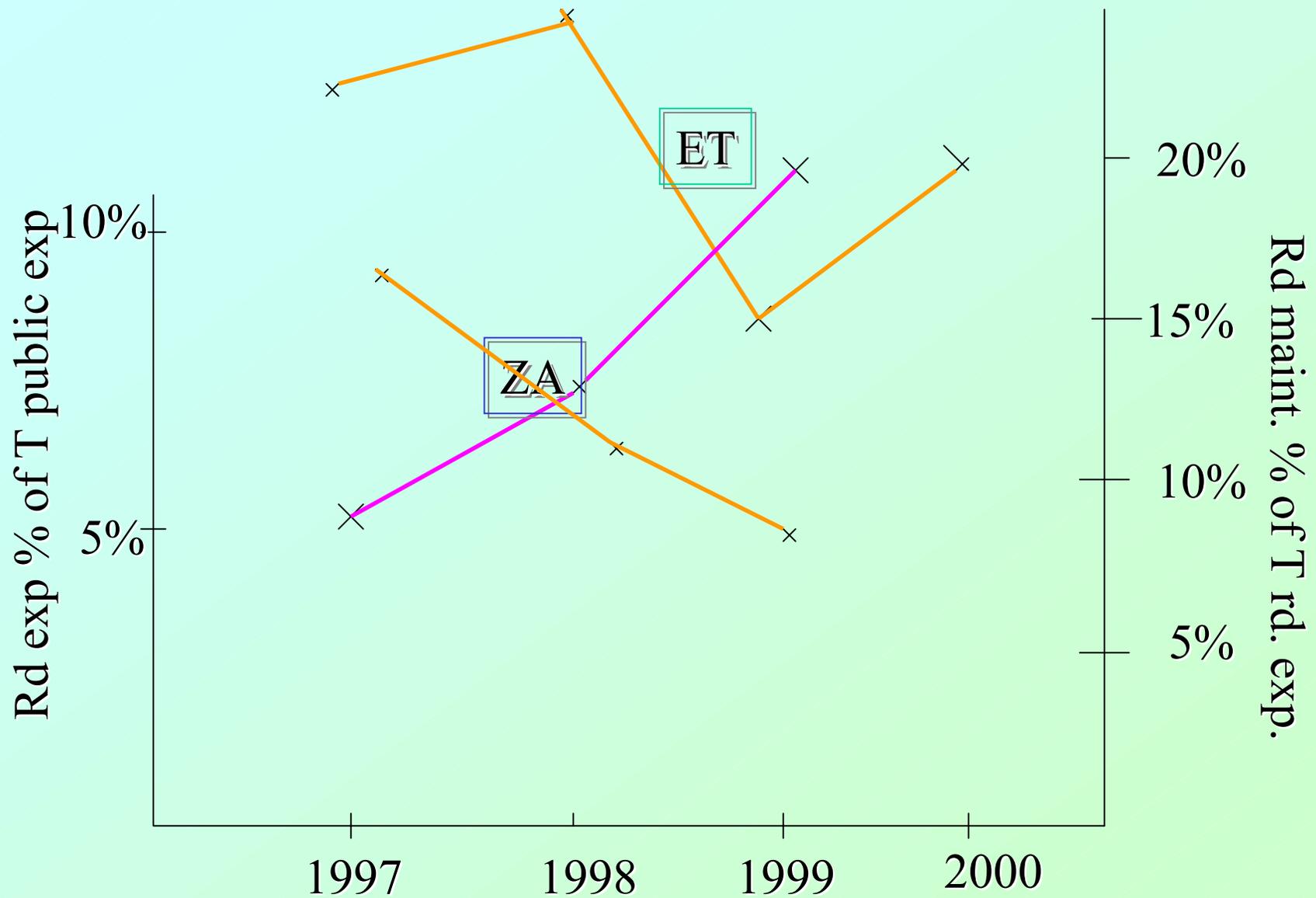
Ethiopia--Road Maintenance Budget (M Birr)

	RF	Govt's Budget
1994/95		170
1995/96		134
1996/97		184
1997/98	163	68
1998/99	200	40
1999/00	200	10
2000/01	250	0

Note: January, 2001 US\$1=8.25 Birr

January, 1998 US\$1=6.8 Birr

Process: Adequacy and Stability



Process: Performance Monitoring Arrangements

Ghana: internal and independent financial and technical audits in place

Ethiopia: performance agreement system between RFA & ERA;
preparation of payment certificates; audit arrangements not yet
in place

Malawi: limited financial and technical audits

Zambia: preparation of Annual Works Program; setting up an
Engineering Inspectorate; limited financial audits

OBJECTIVE ACHIEVEMENT

- What had been the impact of RFs on the quality of road maintenance?
- Have the RFs contributed to improved operational efficiency?--through strengthening the balance between resource mobilization, planning, implementation and monitoring?
- Have the RFs improved the capacity of local construction industry?
- Have the RFs improved resource allocation, across the sector and among different road types?

Objective Achievement

Has it improved share of roads in good condition?

**Share of paved roads in good condition
(indicative)**

Zambia	20% in 1995 to 35% in 1999
Ghana	21% in 1997 to 30% in 1999
Ethiopia	15% in 1996 to 25% in 1999
Benin	29% in 1998 to 33% in 1999

But, the benefits have been confined to the main and urban roads

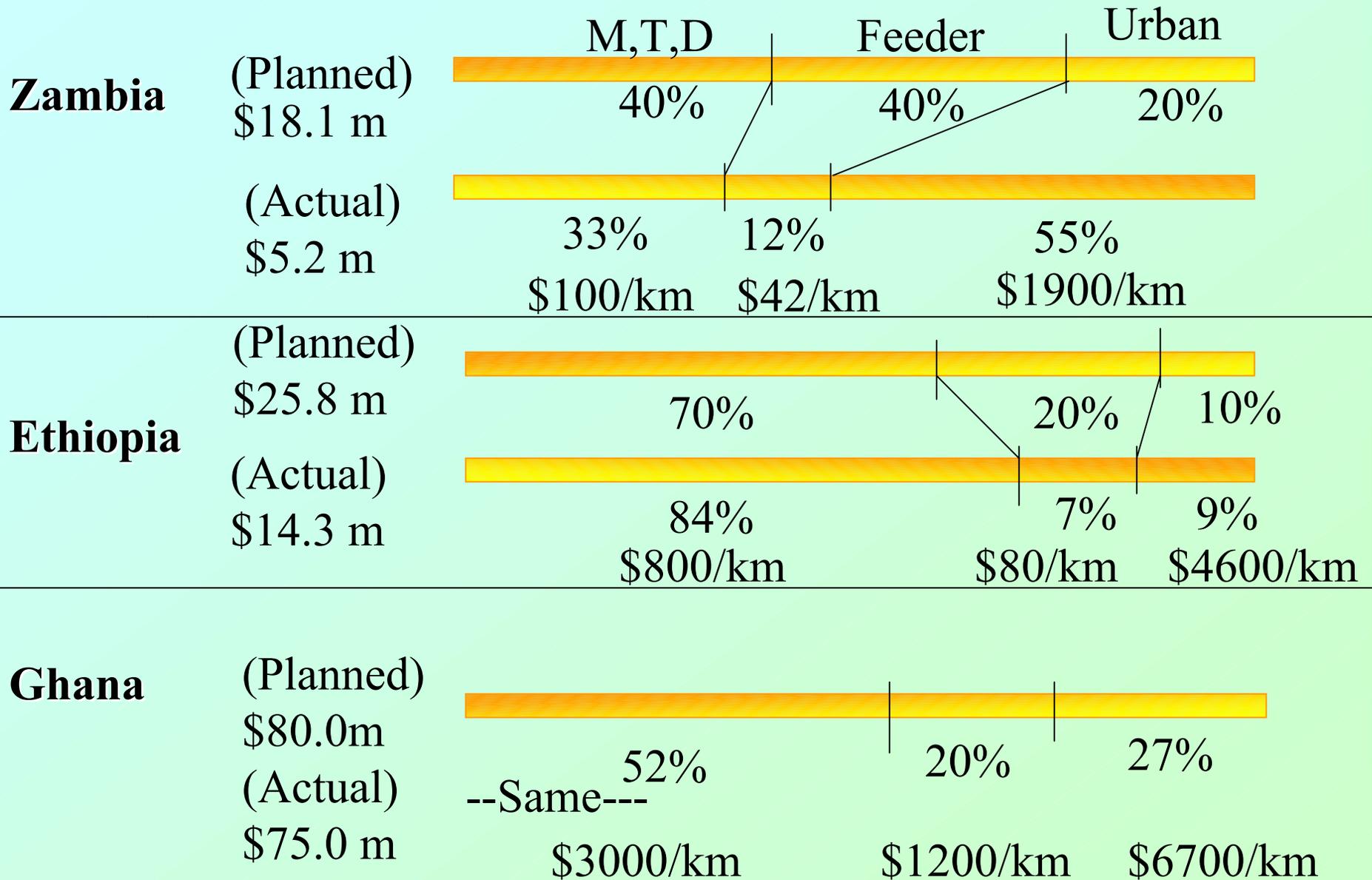
Objective Achievement

Feeder/Rural roads network (some indicative numbers)

Zambia	Compared to a target of 15% of feeder road network in good condition, achievement to-date is only 5%
Ethiopia	70% of feeder road network is in poor condition
Kenya	FY99 disbursements were only 2% of the budget allocations
Malawi	Allocation to district roads is <10% while their share of road network is 23%

Objective Achievement

Has it improved resource allocation?



Objective Achievement

Has it improved operational efficiency?

- Stabilized road financing which has helped to reduce uncertainties in the budgetary process
- Addressed the problem of lack of synchronization between the budget year (Jan to Dec) and the construction season (Sept to May)
- Funding certainty has enabled effective competitive bidding
- unit costs for maintenance have reduced (particularly in Ghana)

Objective Achievement

Has it improved capacity of local construction industry?

Share of force account in road maintenance

Zambia

<10%

Ghana

< 5%

Ethiopia

>75%

Malawi

< 20%

Benin

reduced from 47% in 97 to 40% in 98

- Zambia--# of local contractors increased from 4 in 94 to 450 in 99
- Ghana--resurgence of domestic contracting industry
- Benin--efforts to support SMEs
- RF has helped to insulate payment issues from financial uncertainty

What is the Overall Experience?--Process

- the money still not sufficient to address full maintenance needs
- inability of Boards to match/adjust RUC with maintenance needs (in Ghana, inflation has eroded the real value of FL)
- delays in transferring money due to RF
- in Zambia, only 30% of Govt contribution is channeled through RB
- auditing arrangements not firmly in place (exception: Ghana)
- strong pressure to fund rehabilitation of primary and city network (in Zambia and Malawi more than 50% of RF resources were spent on rehabilitation of capital city roads in FY99)

Key Lessons

- RF necessary but **not** a sufficient condition to ensure sustainable basis of road maintenance
- raise RFs to match absorptive capacity with identified maintenance needs
- need to work harder on non-primary roads
- need to strengthen capacity of road agencies and private contractors in parallel with stabilizing RFs
- Flow of FL to RF must be efficient and transparent with a premium on reducing number of intermediate steps;
- need to built in mechanisms to adjust FL regularly (inflation often erodes the real value)
- need for continuous independent performance monitoring for both financial and technical aspects

Outstanding Issues

- What is the optimum staff size of the board and composition? (private/ user versus public sector domination)
- What are the *sufficient* conditions for sustainable reforms in road management & financing? (adequacy of resources? autonomous road agencies? decentralization of maintenance functions? strong local construction industry?)
- How to define “maintenance”? and what should be the RF mandate?
- How best to relate RUC to damage caused (in an economic sense)?
- How to address maintenance needs of rural network given insufficiency of resources and greater perceived needs of capital city and primary network (who are also major contributors of FL)?
- How to protect the real value of fuel levy?
- How to protect non-users of road from FL. Alternatives:
 - (a) exempting non-road users
 - (b) exempting through coloring
 - (c) reimbursement on individual or group basis
- What time frame to be used for evaluating performance and amending initial design?