STATUS OF ROAD SUB-SECTOR REFORMS IN SUB-SAHARA AFRICA

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In Sub-Sahara Africa road transport is the dominant mode. Typically, over 80 per cent of passenger and more than 75 per cent of freight traffic are carried by roads.
Roads are, therefore, essential for economic development and poverty reduction in the Sub-Sahara Africa region. With over two (2) million kilometers of roads in the region the replacement value of which is estimated at over US$150 billion, roads are some of Sub-Sahara Africa's largest assets.
In spite of the importance of roads in the region, roads are poorly managed and inadequate funding is provided for maintenance. Large portions of the networks in Sub-Sahara Africa are, therefore, in poor condition.
Socio-economic growth is, therefore, stifled due to high transport costs which are a result of high vehicle operating costs. Through dialogue between Development Partners and Sub-Sahara Africa governments, reforms have been embarked on in the road sub-sector since the 1980s.
The reforms aim at providing the road user value for money through better management, and by bringing roads into the market place. The reforms are to ensure increased and predictable road maintenance funding through appropriate cost recovery policies.
The reforms which have been taking place in Sub-Sahara Africa and the reasons for the relatively slow pace of the reforms are discussed. Suggestions for improving road management and maintenance funding in Sub-Sahara Africa are also discussed.

1. The Need for Reform

Road transport is the dominant mode in Sub-Sahara Africa and typically carries over 75% of passenger and freight traffic. In some cases it is the only form of access especially for rural communities. Road transport is therefore essential for economic growth and poverty reduction in the region.

By the end of 1980s, Sub-Sahara Africa had over 2 million kilometers of roads out of which about 600,000 kilometres were classified as main roads. The replacement value of this asset according to Heggie [1] was estimated at over US$ 150 billion. In terms of assets, therefore, roads are among Sub-Sahara Africa's largest.

Despite the importance of roads to economic development and poverty reduction, roads were poorly managed and inadequately funded. The result was that by the early 1990s most countries in Sub-Sahara Africa had more than 50% of their networks in poor condition. Transport costs were thus high through high vehicle operating costs. The road networks had therefore become obstacles to economic recovery which most of these countries had embarked on. There had to be reasons for this state of affairs. Various studies indicated that this was attributable to inadequate provisions for the financing and the management of roads.

Roads were not managed as part of the market economy but the provision of roads was seen as a social service. Road expenditures were from general revenues and were the first to be cut during difficult periods. This is because road deterioration over the first two-thirds of the design life may usually be slow and imperceptible. This gives decision makers the false confidence that road maintenance can be deferred.

The institutional frameworks within which roads were managed were inadequate. Roads were largely managed through government departments within ministries. The management of roads was not subject to any rigorous discipline. There was the lack of clearly defined responsibilities with the result that management structures were weak and ineffective. There was, therefore, necessarily lack of managerial accountability.

The foregoing indicated that there had to be reform if Sub-Sahara Africa was to get out of the economic quagmire in which it found itself.

Through sustained dialogue with Development Partners governments in Sub-Sahara Africa, therefore embarked on reforms in the road Sub-Sector in the early 1990s.

2. Objectives of Road Sub-Sector Reforms

The objectives of the reforms were:-

(i) To ultimately provide the road user value for money through better management of resources by
   - Strengthening sub-sector administration through appropriate institutional set-ups and human resource development policies,
   - Rationalizing programming and budgeting,
   - Clearly defining responsibilities between road agencies, and their parent ministries and road boards;

(ii) To bring roads to the market place and put them on the basis of fee-for-service through cost recovery policies. This was to be supported by appropriate legislation and administrative frameworks for sustainability.

(iii) To redefine the role of the private sector in road delivery by increasing its role in the management of the road sub-sector to engender ownership.

By the early 1990s, after extensive discussions between Sub-Sahara African governments and Development Partners there was general agreement that among the immediate reforms required were:

(a) The setting up of autonomous road agencies with effective structures and clearly defined responsibilities. The agencies were to run as commercial entities while parent ministries remained with the responsibility for policy and oversight, that is "Eyes on – Hands off".

(b) That funding for road maintenance needed to be increased and predictable for effective planning. This was to be achieved through the setting up of 'Road Funds'.

There were initial reservations expressed by the International Monetary Fund and the Ministries of Finance against the setting up of Roads Funds. Road Funds were regarded as earmarking. The arguments were that earmarking did not allow for the most efficient allocation of funds and effective budgetary controls. The arguments against the setting up of these funds were overcome by the compelling arguments that the inflows into the funds would be fee-for-service; that Sub-Sahara African countries were yet to attain good and transparent budgetary systems; and the importance of preserving the individual countries' road assets for socio-economic development.

It must be noted that road funds were not entirely new to Sub-Sahara Africa. Road Funds had been set up in some countries earlier. These "first generation" funds however suffered from poor financial management, the absence of independent audits, the use of funds for unauthorized expenditures, diversion of funds and weak oversight.

The new or "second generation" road funds being advocated, according to Brushett[2] had to have

- a strong legal basis ensuring a separate road fund administration with clear rules and regulations,
- strong oversight with a broad based management board, the members of which are from both the private and public sectors,
- sound financial management systems and lean but efficient administrative structures,
- regular technical and financial audits,
- revenues that are incremental to the budget and derived from user charges.

It was understood that there could not be "a one size fits all" prescription for all the Sub-Sahara African countries. The principles were nevertheless largely applicable to all Sub-Sahara African countries.

3. The Current Situation

The Road Management Initiative (RMI) – Matrix, 2006 [3] indicates that by 2006 there were twenty seven (27) countries in Sub-Sahara Africa with active road funds in place. The number has increased in recent times with nine (9) of them having been established since 2000. The number is likely to increase further in the next few years as a result of on-going reforms in West and Central Africa. Senegal, Burkina Faso and the Democratic Republic of Congo are contemplating setting up "2nd generation" road funds. Uganda, the only country in East Africa without a fund is also in the process of establishing a road fund.

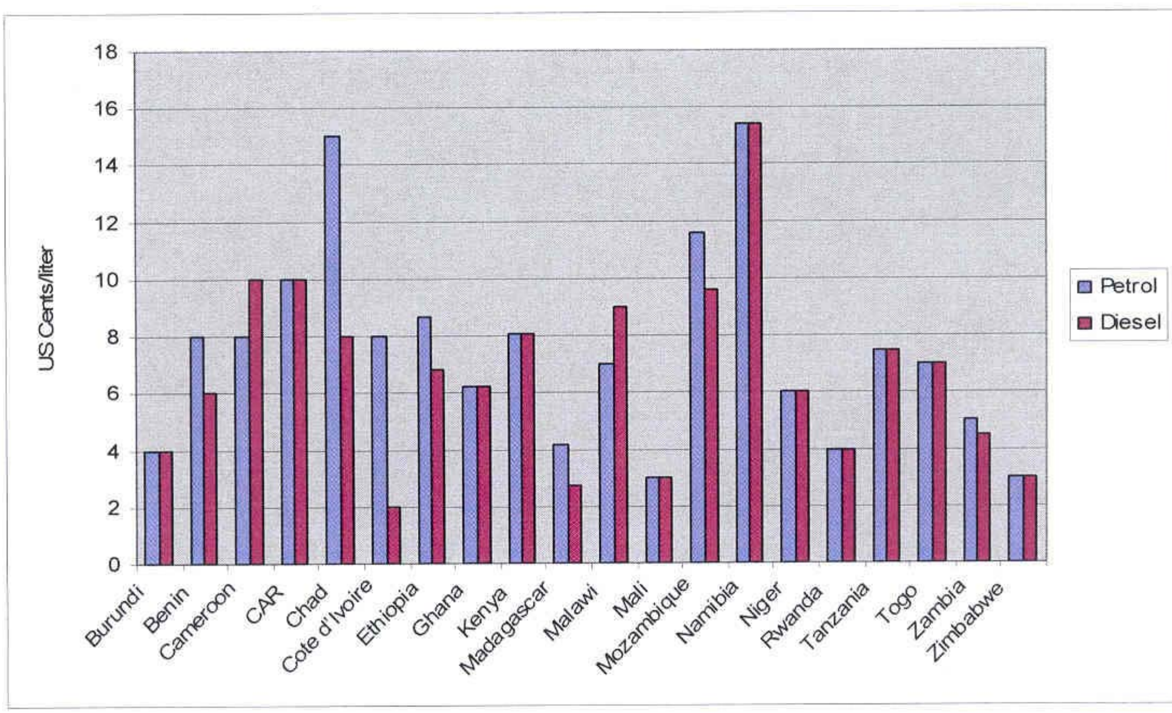
Twenty six (26) of the funds have management boards of which twelve (12) have members from the private sector in the majority. Eighteen (18) out of the twenty seven (27) funds are established by law.

The funds revenues come from user fees comprising a combination of a levy on fuel, vehicle licence fees, transit charges, road tolls and overloading fines. A few of the funds such as in Ethiopia and Benin have a greater proportion of their revenues dependent on general taxation.

For about two-thirds of the funds, over 80% of the revenue from user charges is from fuel levy and in a few cases fuel levy accounts for 100% of the user charge revenues. Thus in general fuel levy appears to be the major source of raising user charges as revenue to the funds. In Ethiopia, Mali, Gabon and Benin, however, road user charges account for less than 50% of their road fund revenues.

The fuel levy varies across countries in the region ranging from three (3) United States cents per litre for Mali and Zimbabwe to US $ 15 cents per litre for Chad and Namibia. The average is around US$ 8 cents. A minimum of US 10 cents per litre is regarded as desirable. The fuel levy charged by different countries is shown in Figure 1.

Figure 1: Level of fuel levy (in US Cents/liter)



Source: RMI-Matrix, 2006

While the establishment of road funds seem to have received wide spread acceptance by governments in Sub-Sahara Africa, the creation of road agencies for better management of the road infrastructure has been slow. According to the RMI – Matrix, 2006, there are sixteen (16) countries that have road agencies. Most of these agencies were created after 2000. There are indications that the pace of change has began to increase as preparatory work in establishing agencies in Uganda, Kenya and Madagascar are on-going.

Only eight (8) of these agencies have management boards in place and only in three (3) cases are board members from the private sector in the majority.

A number of reasons have been given for the rather slow pace of establishing road agencies. Nyangaga [4] identifies the reluctance of governments to give up powers and responsibilities they were traditionally exercising to the new institutions as one of the reasons. In effect there is the fear of loosing control from the parent ministries of the road agencies when established.

Roads in developing countries can be used as a powerful political tool and the question of who decides on which roads to maintain, rehabilitate or upgrade can become an emotive one. Politicians see themselves as the ones accountable to the people and should be the ones to ultimately make these decisions. This may however not lead prudent investment decisions.

However, continuous dialogue can assure the ministries of their important roles of setting policy and oversight for the road agencies.

There is also the fear from politicians that the agencies would be insensitive to soft issues which are important to them but tend to be ignored by rigorous economic analyses. The use of multi-criteria analyses in decision making should allow the consideration of such soft issues to give all stakeholders some comfort. The inclusion of such soft issues in multi-criteria analyses should however be transparent, discussed, understood and accepted by all stakeholders to ensure the integrity of the decision making process.

Another fear expressed by ministries and politicians is that the agencies in trying to be efficient in service delivery may have to lay-off superfluous staff.

This should, however, not pose an insurmountable problem. With the on-going decentralization programs which have been embarked on by most of the countries, the staff to be shed could be deployed to the district level for capacity enhancement.

This is worth being given serious consideration since the lack of adequate capacity at the district level has usually slowed down the decentralization process.

Force account units could also be turned into contracting entities to reduce the impact of down-sizing. This has been successfully done in Nambia. The Ghana Highway Authority also created the “single man” contractor in the 1980s to help manage the issue of superfluous staff when staff rationalization was embarked on. Individual staff members who were to be retrenched were given the option of becoming “single man” contractors looking after sections of the national network, usually 5 km in length. The single man contractors were paid for agreed work which was carried out at intervals. The contractors were initially provided with tools which were paid for through deductions from payments for work done. The annual works programmes were designed to provide a reasonable annual income and in any case much higher than what they could have earned as employees of the authority.

The works involved mainly routine and recurrent maintenance activities such as grass cutting, and ditch and culvert cleaning. Some of these “single man” contractors later grew into relatively successful, small and medium size contractors who could take longer road lengths for maintenance under the programme.

In order that such fears are reduced and the agencies allowed to perform with minimal interference, it is recommended that dialogue be maintained with the ministries and that the ministries are constantly apprised on sensitive issues. There should also be timely reporting on the activities of the agencies based on formats agreed on with the ministries but taking into account the needs of other stakeholders.

It must be pointed out that the Minister would always be politically accountable for the road agency or agencies and the road fund. Ultimately the ministries should understand that if there is improvement in service delivery, they take the lion's share of the credit and should therefore help establish road agencies and provide the enabling environment for them to operate effectively.

4. What are the Current Practices?

A recent study by SSATP [5] on road funds and road agencies indicated that there is generally a lack of autonomy from the parent ministries. The study further inferred that top managements do not always appear to be abreast with international policy issues and board members do not usually have a full appreciation of government policies on roads. The mechanism for commercialization of roads was also not fully understood by some board members. The foregoing underscores the importance of choosing the right personnel as top management and as board members for these funds and agencies. An extreme case of the probable lack of autonomy is the case of Ghana where the Minister is the Chairman of the Road Fund Board with the Chief Director as Secretary.

In some cases, there are parallel boards for the road fund and road agency but with the same members except that there is a change in chairmanship depending on which board is sitting. This is the situation that pertains in Tanzania. There are indications, however, that an independent board would be created for the Tanzania National Roads Agency (TANROADS) as a result of further reforms which have been initiated.

There are cases where a single roads board oversees both the fund and the agency. Such a system does not allow for the separation of responsibilities of the purchaser and provider. There is yet evidence that some road fund boards have taken over the responsibility of paying contractors directly which diffuses accountability of the road agencies.

With the 27 road funds which have been established only eleven (11) countries receive user charges directly into their bank accounts. There are thus still a number of the funds that receive revenue through the treasuries. The channel through which revenue is received by the funds is an important consideration as it can affect the ready availability of funds for the execution of works. For funds where channeling is through treasuries this has been known to cause delays.

The present collections by the funds are inadequate to meet the maintenance needs of the countries. Only half of the countries which have road funds collect enough revenue to meet more than 50% of their maintenance needs. In any case, none of the funds collect enough revenue to meet the total maintenance needs of the country's network.

Though fuel levy is the most important single contributor to the revenues of most of the funds, there is no robust mechanism for adjusting this levy in relation to inflation, exchange rate depreciation and network needs. It may be prudent to look at ways of broadening the revenue base of the funds. This may be necessary to avoid a crisis should the use of non-hydrocarbon based fuels increase in the region. For example, additional revenue could accrue to the funds if a charge is introduced for road use for all vehicles. This charge could be graduated to reflect the relative damaging effect various classes of vehicles have on roads.

Other road user charges that may be introduced must provide a reliable revenue stream with low evasion rates. Such charges should also not be affected by the method of vehicle propulsion.

There are other issues which would also need to be addressed if the reforms are to have a greater impact on the networks in the region to enable them act as catalyst for socio-economic development. Reliable statistics on the size of the vehicle fleet which are required for proper strategic planning seem to be absent in most of the countries. There are also indications that the revenues from the funds are not always used for maintenance. The local construction capacity in most of the countries would also need to be further developed to be able to support their maintenance programs.

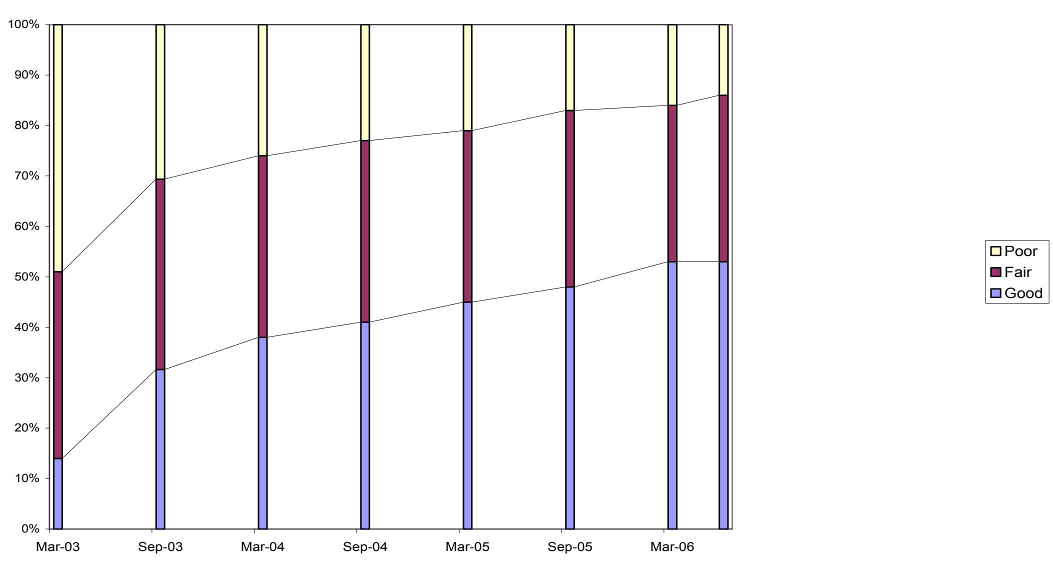
5. Positive Impacts of the Reforms

Despite the challenges that Road Funds and agencies face, there has been noticeable successes arising out of the reforms so far made.

Though most of the countries are yet to raise enough revenue to meet all their maintenance needs, under-funding for maintenance has reduced. Gwillian and Kumar [6] report that most countries are now meeting between 30 and 80% of their maintenance needs. This is up from the 15 to 20% which was common in the early 1990’s.

The predictable income for maintenance with the improved operational efficiency of road agencies had led to the arrest of the declines in road conditions. In some cases this has been significantly reversed. In Tanzania the condition of the network has improved from about 49% poor in 2000 to around 15% poor by June 2006. Figure 2 illustrates the improvements in the condition of the national network over the last few years.

Figure 2: Road Condition



There is also growing evidence that with the involvement of the private sector through contracting, the cost of maintenance has been reduced, in some cases by as much as 20%. Force account has also been systematically reduced in most of the agencies.

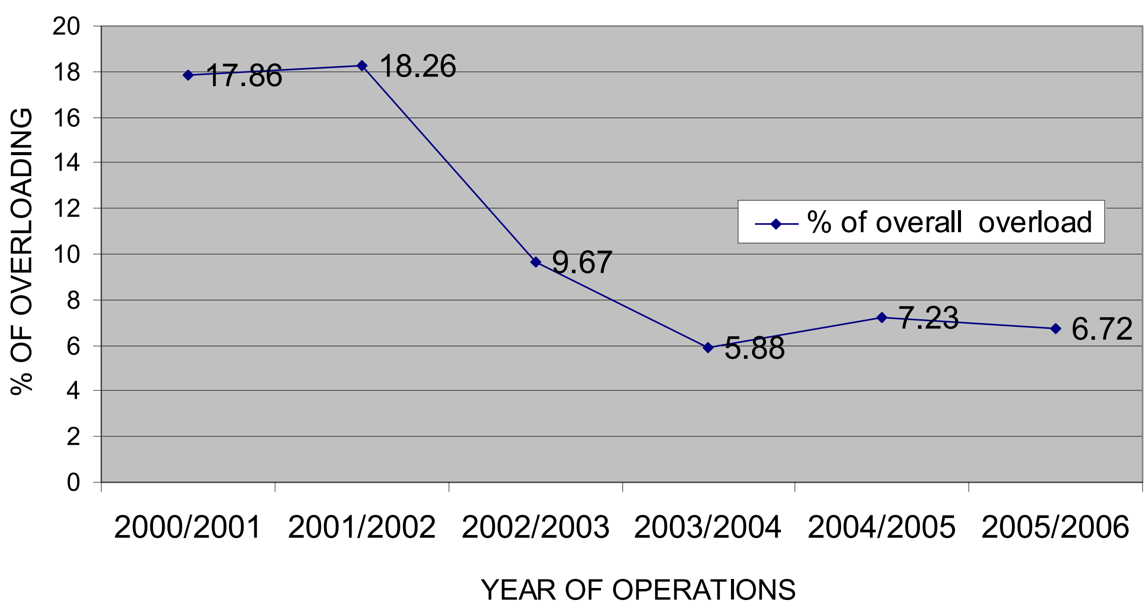
Even with the limited autonomy, new road agencies have been able to experiment with innovative methods of maintenance such as long-term and area-wide output based contracts. Chad is successfully implementing area-wide output based maintenance while in Tanzania, contracts for this form of maintenance are awaiting signature. These forms of maintenance contracting can also help with building the capacity of the local construction industry while improving service delivery.

The impacts have been greater in countries where reforms have been underpinned by other legislation like the Public Procurement and Public Finance Acts.

In Tanzania where a "2nd generation" road fund was established in 1999 and a semi-autonomous agency in 2000; and backed by a Public Finance Act and a Public Procurement Act. Addo –Abedi [7] indicates that the management of the national network has shown considerable improvement. Some of the benefits apart from the improvement of the condition of the national network cited above include the streamlining of procedures in the Tanzania National Roads Agency (TANROADS) for efficiency and effectiveness.

He also reports that there is improved transparency and efficiency in procurement. Overloading has been reduced from over 40% of all vehicles weighed to around 6% by 2004. Overloading trends have been shown in Figure 3.

Figure 3: TREND OF VEHICLE OVERLOADING (all vehicles)

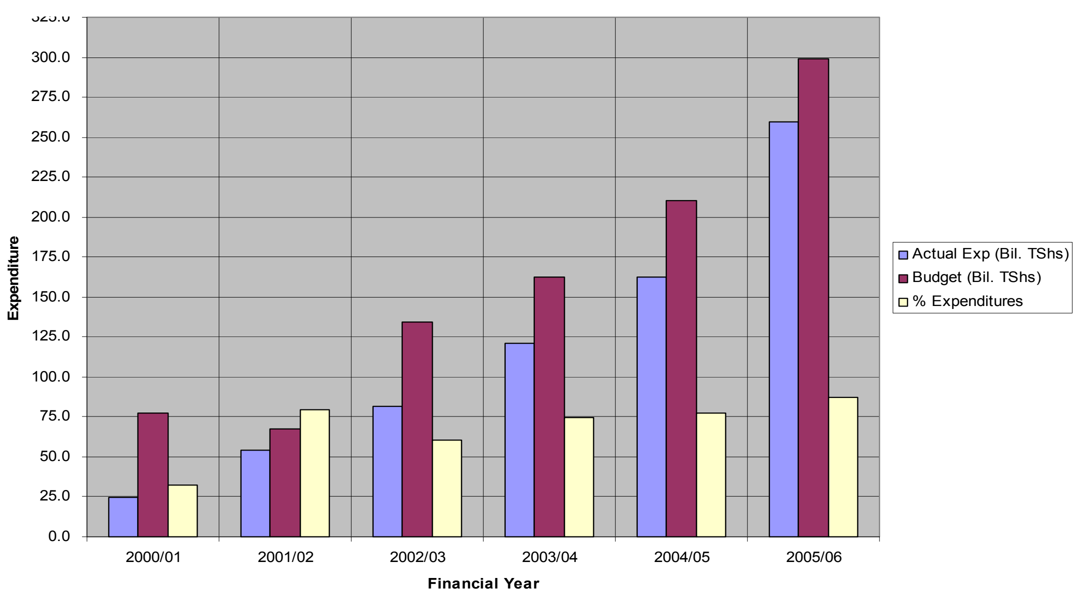


He further indicates that the Public Procurement act has bought discipline and accountability in the procurement of works while the Public Finance Act has prevented over-expenditure which had not been unusual in the past. He also reports that the agency has been able to employ and retain highly qualified and motivated staffs who receive reasonable remuneration. Information available at TANROADS indicates that professional staff turnover has been very low. Between January 2003 and March 2007 the agency had lost only five engineers and two advocates out of approximately 200 professionals.

Two of the engineers had taken up appointments as technical assistants under in African Development Bank Sponsored Project in Zanzibar, one was employed by the East African Community as an infrastructure engineer, another by the Tanzania office of the World Bank and the sixth had been employed by the Tanzania Public Procurement Regulatory Authority. The two advocates went to the private sector.

The absorptive capacity of the agency has also increased rapidly over the last four years. The increase was achieved while the staff strength reduced from about 800 in 2003 to 690 in 2007. The increase in absorptive capacity has been illustrated in Figure 4.

Figure 4: TOTAL ANNUAL EXPENDITURE



6. The Way Forward

The positive impacts of the reforms so far, in spite of the challenges, suggest that the pursuit of the reforms is justified and beneficial to Sub-Sahara Africa.
However, to realize the full benefits of the reforms, autonomy should be given to the road agencies and road funds for improved efficiency and effectiveness. This can be achieved through the restructuring of ministries in parallel with the setting up of new road sector bodies.
There should also be more separation of responsibilities between road funds and road agencies. It is recommended that the funds and the agencies have separate boards with clearly defined roles for increased accountability.
To avoid the erosion of the value of user charges in real terms, mechanisms should be put in place for automatically adjusting tariffs. Revenue inflows to the funds should also be made directly rather than through the treasuries.
The revenue bases of the road funds should be widened to avoid over-reliance on fuel levy. This can be done through the introduction of new user charges. Any new charge should however have a low cost of collection for both the user and the fund. It should also have a low evasion rate and create a stable revenue stream. The charges should also reflect the relative costs to the road agency arising out of road use.
The agencies should also continue to develop management systems which allow for the cost-effective use of available funds. They should also develop appropriate and innovative designs for maintenance and rehabilitation/ construction.
The agencies should also move towards a network management approach rather than considering maintenance and rehabilitation/reconstruction as separate and dichotomous interventions.
Sub-sector policies must also be put in place to guide agencies in their work and reduce friction between them and the parent ministries.

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