Financing road maintenance through road funds is not a new concept, but it is one that is rekindling interest. A new generation of road funds is emerging in Africa, quite distinct from "classic" road funds, drawing inspiration from the tenets of service, efficiency, and responsibility. The objective is an ambitious one, because it posits the point of view that road funds should be run like businesses and not administered like social services.

Classic road funds, whether in the U.S., Japan, Europe, Latin America or Africa, have sometimes proven themselves to be effective but have also often fallen short of their goals. The main problems found in Sub-Saharan Africa are:

- revenues which belong to the road funds are not actually deposited and/or are deposited irregularly;
- contributions to the road fund are inadequate for minimal upkeep of the network, and
- fund revenues are poorly managed and, in fact, are often used for purposes other than road maintenance, such as central administration operating expenses.

The distinguishing factor of the new generation of road funds is how it attempts to correct the errors of the past and implement efficient maintenance policy. With public budgets running large deficits, states are no longer able to finance their road network maintenance and so they must generate other sources of revenue. Essentially, road administrations urgently need to submit to market discipline and enforce strict management techniques to guarantee appropriate use of revenues. This is what the new road funds recently created in Zambia, Tanzania, Malawi and Lesotho are aiming for. Certain classic road funds—in Benin, Central African Republic, Chad, Ghana and Sierra Leone—are also carrying out reforms in an effort to accomplish these goals.
Three pillars support the new-generation of road funds:

- road commercialization
- co-management of road funds
- strict and transparent financial management.

**Commercialization of the Roads**

The basic idea is to commercialize roads. Logically then, road maintenance is the service provided to the customer, who in this case is the road user. The customer, through a price or a tariff, must pay for the service—using the road. It then follows that the price the customer pays must be proportionate to the use he makes of the road network. The road users contribute by paying first an access fee for the network and then a road-use fee.

For local residents, the network access fee buys a decal; for foreigners, access to the road network is paid for at the border in the form of an international transit fee. As for the road-use fee, this fee must reflect actual road network use. Fuel consumption is a good indicator of road use and can therefore serve as a vehicle for the payment of this road-use fee (see graph 1). Accordingly, in most cases, the gasoline levy makes up 60 to 80 percent of road fund revenues and part of the structure of fuel prices, in addition to taxes, as a charge for road use. The axle levy is also a good mechanism because its purpose is to make trucks and other heavy users pay more to compensate for the damage they cause to roads: these users pay proportionately more for road maintenance. The list of road-user fees is not exhaustive; for example, certain countries charge tolls. The ensemble of these road-user fees constitutes the road tariff. The fee schedule must be established so that each vehicle class covers its marginal costs and that all vehicles collectively cover operational and road network maintenance costs.

Cost-recovery channels must allow revenue intended for road funds actually to be collected. Certain countries have entrusted the recovery of tolls and transit fees for foreign vehicles to private businesses. Benin and Mozambique have done this for toll revenue. Tanzania and Zambia are considering the same thing for transit fees for foreign vehicles. The fees will then be deposited directly into the road fund bank account. The gasoline levy constitutes the lion's share of road fund revenues and so it deserves special attention. As is the case in Ghana, Zambia and the Central African Republic, it is recommended that oil companies deposit this levy directly into the road fund bank account, without passing through the public treasury. This allows the actual amounts to be recovered and the road fund to be replenished regularly.

**Road Fund Co-Management**

The new road funds in Tanzania, Zambia, Lesotho and Malawi have instituted management structures that
include representatives of both the administration and road users. It is fundamental that those who contribute to financing road maintenance through road funds be able to participate in their management and ensure that the money is put to good use. Indeed, it is in the best interests of those who finance road funds, particularly the road users, to ensure they are well managed. The level of road users’ participation in road fund management varies from country to country, depending on what is politically acceptable. The level of involvement of road users in road fund management can be evaluated according to two criteria: i) the number of road-user representatives versus private-sector representatives in the management structure; and (ii) the level of responsibility granted to the management structure.

Zambia offers a rare case of road user representation on road boards, because Zambia’s road board actually has a majority of private sector members—of the twelve members, seven are nominated by the private sector. They represent the chamber of commerce, the road transport industry, the automobile association, the agricultural association, the engineering institute, the transport institute, and finally, Copperbelt University. The other five members represent the National Commission of Development Planning and the Ministries of Finance, Public Works and Equipment, Transport and Communications, and Local Collectivities. Other new road funds have not gone quite as far in representing road users on road boards; while they certainly play an important role, it is most often a minority one.

The roles assigned to road funds’ different management agencies vary greatly from country to country. In Tanzania, the road board has a simple advisory role to the minister in charge of public works, but in most other countries (Lesotho, Central African Republic, Malawi, Sierra Leone), these road boards act in a more important capacity. There, they have an executive role which is defined more or less generously. In Zambia, for example, the road board is in charge of road fund administration and management, but also proposes the level of road fund contributions to the competent ministers, provides directives and technical assistance to various road agencies, and reviews and examines road agency activity reports.

The Road Maintenance Initiative (RMI) was launched in 1988 by the United Nations Economic Commission for Africa (UNECA) and the World Bank, under the auspices of the Sub-Saharan Africa Transport Policy Program (SSATP). The countries taking part in the RMI are Cameroon, Kenya, Madagascar, Rwanda, Tanzania, Uganda, Zambia, and Zimbabwe. Others receiving assistance from the program include Benin, Ethiopia, Ghana, Lesotho, Malawi, Mozambique, and Togo. RMI is administered by the World Bank’s Africa Region, and is co-financed with the governments of Denmark, France, Germany, Japan, the Netherlands, Sweden, Switzerland, and the European Union. France, Japan, and Norway provide senior staff members to work on the Program.

Strict and Transparent Financial Management

The new-generation road funds work hard at establishing strict financial management instruments. This is perhaps the most difficult aspect of reform, and most road funds have not yet been successful at it. The objectives are to be able to produce satisfactory financial statements and to use analytical accounting to determine the actual cost of works carried out by force account and sub-contract, as well as to have road funds audited annually in compliance with prevailing international laws. Most countries, like Tanzania, Ghana, Central African Republic and Sierra Leone, do in fact have audits of road fund accounts carried out by international companies, but audit reports often reveal a lack of accountability for revenues and expenses. Great effort will be required in this area to enable satisfactory activity reports to be published for road users and to exhibit transparent management of the funds.

Commercializing roads, co-managing funds with the road users participating on an equal footing with the state, and finally, establishing instruments for strict financial management are ideas that are gaining ground, especially in Africa. These three pillars are the answer to the problem of the rapidly deteriorating road network in Africa.