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Findings

23100

Africa Region . Number 32 . February 1995

Findings reports on ongoing operational, economic and sector work carried out by the World Bank and its member governments in the Africa Region. It is published periodically by the Africa Technical Department on behalf of the Region.

Commercializing Africa's Roads: Transforming the Role of the Public Sector

Road transport is now the dominant form of transport in SubSaharan Africa (SSA). It carries 80 to 90 percent of the region's passenger and freight transport and provides the only form of access to most rural communities. To handle this traffic, SSA countries expanded their road networks considerably during the 1960s and 1970s. By the end of the 1980s, there were therefore nearly 2 million km of roads in SubSaharan Africa. These roads are some of the region's largest assets, with replacement costs amounting to nearly \$150 billion (1 billion equals 1,000 million). This study, **Management and Financing of Roads : An Agenda for Reform**, examines the obstacles to and opportunities for reform in this critical area.

The Present Crisis

In spite of their importance, most roads in Africa are poorly managed and badly maintained. Almost without exception, they are managed by bureaucratic government roads departments. SSA countries have furthermore spent far too little on routine and periodic maintenance during the past 20 years and, as a result, nearly a third of the \$150 billion invested in roads has been eroded through lack of maintenance. Sub-Saharan Africa has been living off its assets. To restore only those roads that are economically justified and to prevent further deterioration will require annual expenditures over the next ten years of at least \$1.5 billion.

The economic costs of poor road maintenance are borne primarily by road users. In rural areas, where roads often become impassable during the rainy season, poor road maintenance also has a profound effect on agricultural output. When a road is not maintained and is allowed to deteriorate from good to poor condition each dollar saved on road maintenance increases vehicle operating costs by \$2 to \$3. Far from saving money, cutting back on road maintenance increases the costs of road transport and raises the net costs to the economy as a whole. It is estimated that the extra costs of insufficient

maintenance in Sub-Saharan Africa amount to about \$1.2 billion per year or 0.85 percent of regional Gross Domestic Product (GDP). About 75 percent of these costs are in the form of scarce foreign exchange. It is no wonder that road user organizations, particularly those in Tanzania, Zambia, and Zimbabwe, have expressed a willingness to pay for road maintenance provided the money is spent on roads and the work is done efficiently.

The Road Maintenance Initiative (RMI)

The RMI, launched by the United Nations Economic Commission for Africa and the World Bank, has spent the past six years working with African countries to identify the underlying causes of poor road maintenance policies and to develop an agenda for reforming them. The program is administered by the World Bank and financed by the Governments of Denmark, Finland, France, Germany, Norway, Sweden, Switzerland and the European Community. The initial phase of the RMI program used regional seminars to raise awareness of the need for sound road maintenance policies and to identify why current policies were ineffective and unsustainable. The second phase then moved on to country initiatives in nine target countries: Cameroon, Kenya, Madagascar, Nigeria, Rwanda, Tanzania, Uganda, Zambia, and Zimbabwe.

Genuine Policy Dialogue

The switch from a regional to an individual country approach had a dramatic effect on the process of policy reform. For the first time, the initiative started to generate a genuine policy dialogue. It turned out that the regional seminars lacked an important dimension as did the initial country dialogue. Participants were predominantly from ministries expecting to benefit from increased road spending. Their attitude was thus one of actively supporting increased road spending and creation of an autonomous road authority, while showing little enthusiasm for the types of reform which might cause them inconvenience: contract maintenance, laborbased work methods, and reform of government plant pools. The dialogue focused on getting more money to continue doing business as usual.

The breakthrough came unexpectedly during workshops in Zimbabwe, Zambia, and Tanzania and consisted of involving the private sector in discussions on road maintenance (the private sector consisted of participants from the chamber of commerce, consultant organizations, road transport associations, and the farming community). Their participation changed the entire chemistry of the discussions. For once, there were two sides to the dialogue. Road users expressed willingness to pay for roads (over and above all pre-existing taxes), provided the proceeds were spent on roads and the work was done efficiently. The road agency, on the other hand, saw a genuine opportunity to improve its position, provided it was willing, in return, to reform the way it did business. Bringing the two sides together, was not always easy. Civil servants generally distrusted the private sector, and the private sector couldn't see the point of talking to the road agency. However, once the ice was broken, the relationship became instantly beneficial, with the private sector offering help and support, and the public sector showing a surprising willingness to listen and respond.

Three other important insights emerged from the country initiatives. First, it became clear that solutions had to be homegrown and that studies prepared by outsiders had little lasting impact unless they were prepared by African resource persons and actively supported by local stakeholders. Second, it was clear that major policy reforms take time and cannot be rushed. It takes time for people to reorient their mind-set, to absorb a new way of thinking, and evaluate the consequences of major policy reforms. Gradualism is of the essence, since incremental change can be more easily absorbed

than a radical transformation of existing institutions. Third, initial experience suggests that a series of small, sharply-focused studies may be more effective at furthering the reform process than one large integrated study with a tight time-schedule.

Underlying Causes

What emerged from the RMI program is that many of the systemic problems associated with poor road maintenance policies weak programming and budgeting, undue emphasis on force account work, and inefficient plant pools are symptoms of a deeper problem. The real causes are attributable to weak and unsuitable institutional arrangements for managing and financing roads. Roads are not managed as part of the market economy. There is no clear price for roads, road expenditures are financed from general tax revenues, and the road agency is not subjected to any rigorous market discipline. Roads are managed like a social service. Poor terms and conditions of employment create further difficulties, as do the lack of clearly defined responsibilities, ineffective and weak management structures, and a lack of managerial accountability.

One of the first lessons to emerge from the RMI program was that attempts to improve road maintenance policies cannot focus on maintenance alone. Poor road maintenance policies are a subset of the wider issues of managing and financing roads as a whole. The key concept that emerged from the ensuing debate was commercialization: bring roads into the marketplace, put them on a fee-for-service basis and manage them like any other business enterprise. However, since roads are a public monopoly, and ownership of most roads will remain in government hands for some time, commercialization requires complementary reforms in four other important areas. These are referred to as the four basic building blocks. They focus on:

- Creating ownership by involving road users in management of roads to win public support for more road funding, to control potential monopoly power, and constrain road spending to what is affordable;
- Stabilizing road financing by securing an adequate and stable flow of funds;
- Clarifying responsibility by clearly establishing who is responsible for what; and
- Strengthening the management of roads by providing effective systems and procedures, and strengthening managerial accountability.

The Four Basic Building Blocks

The four building blocks represent the core of the reforms. They are interdependent and ideally should be implemented together. Without all four, the reforms may achieve only part of their objective. The financing problem cannot be solved without the strong support of road users. One cannot win the support of road users without taking steps to ensure that resources are used efficiently. Resource use cannot be improved unless one controls monopoly power, constrains road spending to what is affordable, and increases managerial accountability. Further, managers cannot be held accountable unless they have clearly defined responsibilities. There is nevertheless scope for flexibility. The reforms can be introduced in different ways, and the content of each building block may differ, depending on country circumstances. They can move sequentially or in parallel, and both sequencing and the pace of reform can vary. Furthermore, since the RMI message is still evolving, the reforms need to be monitored and the results used to modify the message as new information becomes available.

Ownership. Major policy reforms in the road sector are unlikely to succeed without the active support

of road users. Given that current allocations for road maintenance are erratic and well below the levels needed to keep the road network in a stable longterm condition, the first building block thus involves winning public support for more road funding. However, support for more road funding through user charges requires that steps be taken to ensure that road agencies do not operate as public monopolies, and that no more is spent on roads than the country can afford. The key step to be taken is thus to involve road users in road management, since this is generally an essential precondition for getting them to willingly pay for roads on a fee-for-service basis. Presently, there are at least seven functioning boards in Benin, Central African Republic (CAR), Mozambique, Sierra Leone, South Africa (the oldest, originally established in 1935), Tanzania, and Zambia. Most boards include private sector representatives.

Financing. The second reform aims at establishing an adequate and stable flow of funds. Budget allocations for road maintenance in Africa rarely exceed 30 percent of requirements, and it is simply not feasible for governments to increase these allocations under present fiscal conditions. Several African countries are addressing this issue by introducing an explicit road tariff consisting of vehicle license fees and a fuel levy. The tariff is collected independently from government sales and excise taxes and, in the best examples of collection arrangements (CAR, Ghana, and Zambia), the fuel levy is collected on an agency basis and deposited directly into a Road Fund. This prevents the proceeds from being siphoned off and spent on other public programs. The intention is :

- To create a clear market signal to encourage road users to demand value for money; and
- To link revenues and expenditures to impose a hard budget constraint on the road agency, so that more road spending means a higher tariff, while a lower tariff means less road spending.

The tariff is generally set to eventually cover all costs of maintaining main roads and part of the costs of maintaining urban and rural roads. The remaining costs of maintaining urban and rural roads are financed by local taxes. Most of the countries with Road Funds have agreed procedures for allocating funds between different road agencies. Some use simple formulas (Ghana and Mozambique), others use formulas that are modified in relation to needs (Tanzania and Zambia), while others base them on a complex assessment of needs (South Africa).

Responsibility. The third building block concentrates on creating a consistent organizational structure for managing different parts of the road network. This requires two things:

- Clear assignment of responsibility among different government departments and different levels of government; and
- Clear assignment of responsibility among the individual road agencies.

The arrangement needs to be based on an accurate road inventory, functional classification of roads, designation of appropriate road agencies, formal assignment of responsibility to each road agency, and clarification of the relationship between the road agency and the parent ministry. Responsibilities to be assigned include those for operation, maintenance, improvement, and development of the road network; for traffic management and for road accidents caused by the road agency's own negligence; and for the adverse environmental impacts associated with roads and road traffic.

Management. The final building block focuses on creating a more businesslike road agency. Once road users are involved in the management of roads, they generally press for the introduction of sound business practices to ensure that they get value for money. They expect clear management objectives, competitive terms and conditions of employment, consolidated budgets, commercial

costing systems, and effective management information systems. The most important issue requiring attention is the wide gap between terms and conditions of employment in the public and private sectors, and the impact that this has on staffing and staff morale. An engineer in the private sector in Cameroon normally receives a total remuneration package twice as large as his public sector counterpart (the ratio is 5 in Tanzania and nearly 9 in Zambia). As a result, several road agencies have lost most of their staff or are being managed by expatriates earning international salaries paid by international donor agencies.

Once staff are adequately paid, other reforms should concentrate on giving each road agency a clear mission and effective management structures, including appropriate management information systems, good accounting systems, and more managerial autonomy so that managers can act commercially. The Ghana Highway Authority has made great progress in this direction by streamlining staffing and disciplinary procedures and introducing a road management system. It has also developed a corporate plan that forms the basis of an annual contract plan between the Authority and the government. These reforms improve market discipline, provide managers with the freedom to operate commercially, and strengthen managerial accountability. They also encourage a more objective approach to setting priorities, comparing inhouse to contract work, and evaluating laborbased work methods. Finally, auditing procedures also need to be improved to ensure that the public gets value for money from road spending. Where possible, both financial and technical audits should be carried out by independent auditors. Technical and financial audits are now being used on the rural access roads program in Kenya and on road maintenance programs in Burkina Faso and Senegal.

Representing as they do the arteries of commerce between urban, peri-urban and rural communities in Sub-Saharan Africa, to neglect the maintenance of the road networks would be economically imprudent. Opportunities for constructive change in this crucial area must be seized if the momentum of economic reform is to be maintained.

Ian G. Heggie. 1994. *Management and Financing of Roads : An Agenda for Reform*. Technical Paper No. 275. Africa Technical Department Series. For copies, please contact Ms. Anna Gueye, Room J 3-256, Technical Department, Africa Region, World Bank, 1818 H Street, NW, Washington, D.C. 20433. Tel.: 202- 473-4758; Fax: 202-473-7916.

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