Maintenance strategy

General aim and features of a maintenance policy

Projects are usually evaluated on the assumption that proper maintenance of new infrastructure will be assured, and in fact the estimated annual costs are always based on this assumption whether or not this will happen in practice. Attention is thus typically given to consideration of the institutional arrangements for financing maintenance. But without an adequate and stable flow of funds, maintenance policies will not be sustainable.

In many countries maintenance expenditure is well below the levels needed to keep road networks in a stable condition for the long-term. Lack of funds for maintenance results in the decay of road networks and increased road transport costs (in terms of travel time and VOCs). The long-term impacts result in reduced commercial and agricultural competitiveness in international and regional markets and consequently slow overall economic growth.

This problem is not confined to only transition or developing economies. Many of the wealthiest nations in the world are also failing to properly finance road maintenance. In the United Kingdom a 1996 Institution of Civil Engineers survey found that maintenance of local roads (96 percent of the total road network) was being under-funded by USD 1.4 billion per year and construction and improvement by a further USD 2.3 million. Recent work in the USA reveals that the deficit there is of the order of USD 1.5 trillion i.e. that is needed to bring the national highway network into good condition.

Commercial Management and Financing of Roads, Heggie and Vickers,
World Bank Technical Paper N°409 (1998), page 32

Raising Gas Taxes Won't Fix Our Bridges; A T Moore, the Reason Foundation

Lack of funds for maintenance does not lead to immediate, catastrophic failure and there is thus little political pressure or incentive to support maintenance. Likewise, maintenance can always be postponed in the hope that the fiscal situation will improve.

Depending on the road management scheme chosen, the Highway Authority can use various methods to increase the allocation of funds devoted to network maintenance. Two examples can be given:

Better balance between maintenance and new investment

Road maintenance can be underfunded because some countries still spend too much on new investment and thus scarce resources are misallocated. Donors have since recognized this mistake and will no longer finance rehabilitation programs until governments have introduced sustainable road maintenance policies.

The justification for road funds normally relates to several basic principles:

- Establishment of a consistent level of funding for road development and particularly maintenance to allow for multi-year contracting and to ensure that essential asset management services can be provided by the responsible agencies at different levels of government;
- Establishment of an equitable means of charging for road services and allocating funding among the various levels or organizations responsible for development and maintenance of road assets. This may involve different levels of government, different organizations within the same level of government, or different user groups; and
- Creation of an efficient and effective implementation process with sufficient accountability checks to ensure that the funding reaches the targeted areas and that works contracted are, in fact, completed.

Road user charges policy

Road maintenance is also underfunded because road users do not pay enough for their use of the road network. They pay the usual import duties and excise and sales taxes-but so does every one else on all the other goods exchanged in the economy. Since private cars are a luxury item for low and middle-income economies, a higher level of general taxation, at least on private car ownership and use, would be justified on equity grounds.

Yet road user charges -in the form of vehicle license fees, a specific surcharge added to the price of fuel (the fuel levy), and international transit fees- rarely cover more than 50% of expenditure on road maintenance and, in some countries, barely 25%.

Until the beginning of the 1990s, most reform efforts sought to strengthen road management, improve policies governing user charges, and increase allocations for road maintenance. But these reforms lacked a comprehensive vision focused on technical rather than institutional solutions.

Donor countries often ask governments to set aside part of their general tax revenue (usually specified as a percentage of overall fuel tax revenue), deposit the money in a road fund, and use the proceeds to finance maintenance of the core road network. But apart from pointing out the economic costs of deferred maintenance and suggesting that funds be reallocated from construction to maintenance, little advice was offered on where the additional revenue might come from and how the road fund should function.

Against this background two regional programs have sought to give more focus to road sector reform. The first and most successful is the Road Maintenance Initiative (RMI), renamed the Road Management Initiative in April 1997. The United Nations Economic Commission for pools and the World Bank launched this program in the late 1980s as one of the five components of the Sub-Saharan African Transport Policy Program. The second regional program is PROVIAL established in 1992 through an initiative of the

World Bank's Economic Development Institute (former EDI, now WBI) to address road maintenance management in Latin America.

To know more about these programs:

Commercial Management and Financing of Roads, Heggie and Vickers,
World Bank Technical Paper N°409 (1998), page 16