Introduction

1. The mission (Stephen Brushett) participated in a study tour to Sweden with the primary purpose of learning from that country’s approach to community (private) road development for possible applicability to the Zambia case. The tour took place over the period April 10-14, 2000 and was coordinated by Mr. Sven Ivarsson, Chief Engineer in the Swedish National Road Administration (SNRA) or “Vagverket” and also a Board member of the National Federation of Private Road Associations (NFPRA) or “Riksforbundet for Enskild Vaghallning”.

2. The program included meetings with: Board members of NFPRA; Board members of three, diverse, Private Road Associations (PRAs) in the Stockholm area; officials from the SNRA, the Ministry of Industry, Employment and Communications, and the National Land Survey of Sweden; advisers to the Parliamentary Standing Committee for Transport and Communications; representatives of the consulting firms, SweRoad and SwedeSurvey.

3. The Zambian delegation was led by Hon. D. Kalingeme M.P., Deputy Minister for Communications and Transport and also comprised: Messrs. X. Vlahakis, Secretary for Communications and Transport; O. Banda, Secretary for Local Government and Housing; R. Jhala, Chairman of the National Roads Board; W. Ilunga, Deputy Coordinator, Social Recovery Project; O. Makungu, Road Engineer, Social Recovery Project; B. Mwiinga, Co-ordinator, Rural Travel and Transport Program, Ministry of Local Government and Housing; and Ms. N. Mudenda, Legal Draftsperson, Ministry of Legal Affairs.

4. The following documents were obtained during the course of the study tour: copies of the Roads Act, Joint Property Act and the Facility Act; copy of the National Transport Policy Document; SNRA Annual Report, organization chart and planning system; information on the Ministry of Industry, Employment and Communications and on the Standing Committee of Parliament for Transport and Communications; copies of presentation slides, inter alia, on: the role of private versus the role of public roads; criteria for subsidizing private roads; role and objectives of the NFPRA; characteristics of three PRAs visited.
Road Sector Background

5. The approximate size of the road network is 419,000 kilometers, i.e. 98,000 kilometers of national roads under SNRA; 37,000 roads under municipalities; 74,000 kilometers of private roads with (partial) government subsidy; and 210,000 private roads with no subsidy. Whereas private roads by length account for over two thirds of all roads, they cater for only about 4% of total traffic volume (of which 3% on the subsidized private roads).

6. The SNRA is the responsible agency for road sector coordination and provides standards and technical support at all levels of the network. SNRA is largely autonomous under a Board and a Director-General chosen by the Government. There are about 6,300 employees of whom more than 4,000 are in profit centers – including maintenance and construction – which may subsequently be privatized. There are 600 staff at headquarters and the balance are in one of the seven regional offices or five profit centers. Since 1992, the SNRA also handles road traffic management. SNRA collects, but does not retain, sources of direct revenue from its operations. Other than the Malmo-Copenhagen bridge (under construction), there are no tolls on Swedish roads.

7. Oversight of SNRA, municipalities and PRAs from government is light and driven mostly by: priorities set out in the present transport policy document (which largely concern environment, road safety and regional balance); in a ten year national plan, which is updated every four years; and by budget allocations (three year rolling). In recent years, budget allocations have not met all requirements. Maintenance (about $1 billion equivalent) continues to be funded but a number of upgrading programs have had to be postponed.

8. The SNRA has the role of determining whether a road should be public or private according to regulations which are revised from time to time, i.e. this is not established in law. Roads will generally be public where: a public service institution is to be served; there is more than 100 v/d though traffic and 150 v/d locally generated traffic; 200 people or more are on the road; and two public roads are linked by the road. Roads will generally be private where the above do not apply; where a former public road is being replaced by a better, newer alternative; where trough traffic is less than 50 v/d and locally generated traffic is less than 70 v/d. There is the possibility of appeal through the government.

9. The level and type of subsidies to PRAs is determined by SNRA through regulations. The amount expended on subsidies is large and growing – about $70 million per annum – is seen as critical to government policy to assure access and reduce costs in remoter areas and to preserve capital tied up in the extensive private road network. The SNRA has the role of determining what road maintenance costs ought to be for each PRA and may advice on, but not carry out, such maintenance. Where a PRA has qualified for, and receives, subsidies, the road must be kept open to the public and is subject to periodic inspection by SNRA. To receive subsidies, the private road must meet a number of criteria, e.g.: at least 1 kilometer in length; operations and maintenance costs must be reasonable; road is suited for its purpose; a PRA must exist. Subsidy rates vary according to SNRA regulations between 40 and 80% depending on category of road. Actual pay
Private Road Associations in the Swedish context

10. Private roads have a very long history in Sweden and have always been important in farming communities. Over the years and since 1880, a legislative framework has been built up to provide, separately, for the establishment of associations to manage private roads and for the operations and maintenance of such private roads. The most critical revisions in relation to private roads have come in 1907, 1926, 1939, 1974 and 1994.

11. An important feature of the Swedish system is the central role played by the land surveyor in the establishment of road associations. The land surveyor must ensure completion of cadastral survey, property registration, and determine the proportion of the cost of the road to be met by the different property owners (“tonne-kilometer” methodology). There is a right of appeal to government on cost apportionment but it is contained in the law that: all properties served by the road must participate (no “free riders”), and the obligation resides in the property, not in its owner. The land surveyor has to help set up the association, including registration and the election of officers. The PRAs by law must meet certain (not overly burdensome) requirements, e.g.: an annual meeting of members; an activity plan and accounts to be produced etc., authority to recover debts from non-paying members (who may forfeit their property rights if non-compliant).

12. Not all road associations are members of the NFPRA – some 5,000 are and their number is growing at about 100-200 per year in recent times. Membership costs about $5.50 flat fee plus about $0.65 per kilometer. The NFPRA is basically the lobbyist for the PRA case with Government and in Parliament. But it also provides a range of services and information, including a liability insurance package. The NFPRA has a Board whose members are unpaid and employs one part-time employee – as registrar and office manager. Some PRAs pay their Board members – others do not.

13. Partial information provided by the NFPRA and by the PRAs themselves suggest that maintenance of private roads through the system is cost effective, though the full economic costs are not known or measured. While standards are subject to SNRA input, most roads are narrow (3 to 4 meters width) and of simple construction – many maintenance costs are provided through “in-kind contributions” like work days. Many PRAs have a contractor on their Board which also helps, but the majority are not road specialists, but interested property owners. Winter management features strongly in the cost structures of those PRAs visited, because of the need for frequent snow plowing and repair (in the spring) of ground frost related surface damage, i.e. 25-30% of total. Upgrading costs vary, but fell within 15-20% of total costs of those PRAs visited. Few households in any PRA were having to contribute more than $100 per year.
Possible Areas of Applicability to Zambia

14. There are evidently some significant differences between Sweden and Zambia – level of income and scope for providing fiscal subsidies; climate and its effect on the quantum and type of maintenance required. But there are a number of similarities too – large, sparsely populated countries, with many relatively isolated rural communities; drive for public sector reform and for autonomizing or privatizing to the extent possible the provision of road management services. While there are again some particularities of the Swedish legal framework which would be difficult to replicate in Zambia – such as the role of the land surveyor - the value of having such a framework to promote the development of road associations seems evident. The experience of the Social Recovery Project pilot Community Transport Initiative (CTI) under the project also provides a basis on which to build in this direction given what has already been achieved on both: organization of rural communities into embryonic road maintenance associations; eventual eligibility for part funding of such maintenance through the Road Fund.

15. Some additional considerations in applying the Swedish model to the Zambian situation would be as follows:

* Legislative reform may have to come at various levels to accommodate private road management, i.e. to establish the possibility of private ownership of specified assets by specified bodies in the revised Road and Road Traffic Act and Regulations; to provide for the constitution and establishment of such associations as a new Act or as an amendment to an existing Act; to provide for the provision of public financing – Road Fund or otherwise – to such private bodies.

* Private roads in Sweden are driven by, inter alia, a combination of a local community of interest to act and of the existence of solid and readily available technical support from SNRA. These may take time to build in Zambia even if a good legislative framework is put in place, i.e. community building is ongoing and needs to go forward with the redefinition of “public entitlement” with regard to road funding; also the road administration (Roads Department and DISS) is institutionally split and may not have the capacity yet to provide the services the private road associations may wish to obtain.

* Criteria to be met by private road associations would need to be established, as would the criteria to access funding. These can use similar indicators to Sweden, but modified to suit Zambian conditions, e.g.: non-motorized traffic, including head loading, would be a very important element in determining the qualification of rural roads for support. Roads with more total traffic (demand for access) should on average get more support than those with less.

* The most immediate area where the concept of private roads could take off in Zambia are urban townships, particularly high to middle income areas. Such areas would have less trouble than most in raising finance, organizing community activity (although there is a major proviso here in terms of how participation of all would be mandated once a majority have agreed). Also in
nearly all urban roads, substantial parts of the road network are not likely to be maintained by the municipalities at any time soon.

* Road Fund allocation criteria have to be modified to provide incentives for local communities – especially in urban areas – to maximize local revenue generation. This could be direct to communities (private road associations) or though the municipalities, i.e. those urban areas where private road associations are active should be allocated more funding than average. Either way, it appears to be an effective way to make actual the concept of cost sharing for road maintenance. It is not clear though which body could funding be provided for construction, upgrading and rehabilitation.

* At this current stage of development, a national body for private road associations may be effective in developing the concept and growing the sector. The Swedish model has much to commend it – a light, low cost institutional structure, but needing a dynamic and effective Board. A sponsor organization would need to be found if this idea is to take off however.

Next steps

16. The results of the study tour are to be reviewed by the mission with the delegation before end April 2000 by which the report of the delegation is expected to be available.

17. Any implications for the legislative framework from the findings and recommendations as reflected in the final report on the tour should be made immediately available to the team working on the revision of the Roads and Road Traffic Act. The brief for further legislative reform should be prepared with a period of three months to facilitate the implementation of reforms from next year. A working group should be put together to develop proposals over this time period for funding criteria and establishment requirements for private road associations.

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