

Policy Alternatives for Strengthening Rural Transport & Travel Systems

The Context

Rural transportation is seen as the range of activities encompassing the provision of mobility and accessibility to rural communities, which is the promotion of the ability of rural people to get to or be reached by the services (education, health) and activities (getting water, fuel, food, reaching markets, participating in social, political activity), which facilitate in many ways their economic and social development. Poor access leads to isolation and marginalisation, a contributory factor to rural poverty. It has been estimated that 85% of the poor households in Sri Lanka are in rural areas¹. Improvement of mobility and accessibility is a means of approaching poverty alleviation by enabling the access of rural communities to employment opportunities and other socio-economic services and facilities. This includes the task of reducing the time and effort spent by rural people in accessing facilities that enable them to develop their livelihoods.

There is emerging evidence of the extent of the transport burden undertaken by rural communities in Sri Lanka. The recent census classifies 80% of the population of Sri Lanka as rural including the estate sector. Studies reveal that people travel considerable distances in rural areas to obtain specialized goods (fairs, urban centers) or services (hospitals, co-ops, banks) and for children to go to school. Research studies² on the transportation problems of rural communities have revealed that in some villages in the Hambantota Divisional Secretariat Division, people travel as far as 102 km to a hospital, 72 km to a physician, 25 km to a bank, 36 km to the pola and 38 km to a secondary school. People walk 10 km to transport agricultural produce to market and women walk 3-12 km to fetch water and firewood. In the Akuressa Divisional Secretariat Division, children travel as far as 56 km to a secondary school, in some villages, while people travel a maximum distance of 56 km to access a physician. Villages containing few facilities and in which people have to make longer journeys for most purposes have the most acute problems. Very thinly populated deep rural areas many of which are not adequately reached by a road network are more affected than semi-rural areas. Poor roads, lack of transportation facilities, aggravated by distances to be traversed constitute in brief the transport problem in rural Sri Lanka.

The term rural transportation has tended to be narrowly associated with the mere provision of rural roads. Rural transportation needs to be looked at from a broader, more comprehensive appreciation of the necessity to mitigate rural isolation and facilitate the ability of rural people to exploit available resources, access markets, alternative employment, and reduce their vulnerability.

This requires an integrated approach to the rural transport problem. While transport could be regarded as a facilitator to development, it is necessary to recognize in parallel, the alternate non-

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transport options. As such, strengthening rural transport and travel systems can be seen to encompass two aspects of rural mobility and accessibility:

- * "The ease or difficulty with which rural people move themselves and their goods to socio economic facilities and
- * The location of essential socio-economic services so as to reduce the time and effort needed to reach such services"

Rural Transport Needs

A Rural household's needs for mobility and accessibility can be classified as:

- Economic : related to the production and sale of agricultural produce and other goods.
- Social : related to health care, education, religious and other social activities.
- Subsistence : related to the collection of water, firewood, and domestic food production.

Policy Alternatives.

Location specific provision of Transportation.

The provision of rural transport and travel systems requires to be tailored to the specific needs of a rural area, be suited to the economic condition of the spatial unit, and be sufficient to provide the level of mobility and access that enables that community to perform the various socio economic activities necessary to sustain their well being. Not all locations need the same level of access and mobility. Hence, area specific provision prevents

wastage and thereby helps a larger number of people to benefit from limited investment resources.

Improvement of existing rural transport Infrastructure.

An adequate network of local roads in rural areas, its development and continuous maintenance is a major requirement for rural mobility and accessibility needs. The poor condition of existing rural roads including bridges and culverts is a constraint on rural mobility and accessibility.

It is estimated that out of the total country wide road network of around 110,000 kms (as at 1990) 60,000 kms fall within the class E category, the majority of which are rural roads. Thus, 54.5% of the total road network is estimated to be rural and under the decentralized administration of the Pradeshiya Sabhas. This road network is supplemented with an extensive countryside network of about 100,000kms of footpaths.³ Much of this rural road network including its bridges and culverts is in varying states of deplorable disrepair. Some are impassable during wet weather. Maintenance is both neglected and inadequate. A poor road network reflects institutional shortfalls of capacity in funds and skills. The financial and technical capacity of Pradeshiya Sabhas many need to be strengthened to address these issues.

Use of Appropriate Transport Infrastructure and Technology

Maintenance

Maintenance has an important role to play in preserving local transport infrastructure, access reliability and in reducing travel and transport difficulties. In the maintenance and improvement of existing rural transport infrastructure, appropriate technology should be used. Appropriate technology is defined as efficient, low cost and amenable to labour intensive methods. The use of low-cost technology does not imply relaxed construction standards. Tailoring access to specific needs of spatial units makes the use of local resources, local labour with community participation, particularly suited to rural infrastructure preservation.

Incremental Improvements

Transport needs increase as development proceeds. Needs are dynamic and not static.

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Incremental improvements should be used to meet changing access needs. Travel for social and recreational purposes could grow as economic development provides additional discretionary spending capacity. Providing for mobility and accessibility in phases, which respond to increased economic activities of specific rural areas could preserve transport resource expenditure options until their utilization is warranted.

New Roads

New roads are required to provide access to remote communities. Without access, communities could be isolated, stultifying the socio-economic development of the affected group. The potential for improvement of the productivity of the rural area and socio-economic well-being of the community are criteria for provision of new roads. These may be "all weather" gravel roads or well designed earth roads. New roads should be undertaken only with a systematic maintenance management scheme well in place.

Feeder Roads

Rural traffic volumes on many feeder roads are too low for the indulgence of expensive over design. Feeder roads serve local mixed traffic including non-motorized transport modes (NMTs) such as carts, bicycles, intermediate modes (IMTs), pedestrians and provide functional access. Well designed, properly constructed and supervised "all weather" gravel roads and properly designed earth roads could satisfy this function. Such roads could be used as a step in the staged construction of paved roads thereby economizing the use of scarce funds.⁴ Feeder roads open up employment opportunities, access to socio-economic facilities and markets. They are therefore, vital for the socio-economic well being of the people of the area.

Rural Transport Services

Studies⁵ have shown that, in general, in rural Sri Lanka, a primary school and a post office are available within walking distance from a village center. Access to most other facilities whether medical, education, market (pola) bank, police station etc; needs a variety of forms of transportation, either human powered (cycling) or motorized (motorcycle, tractor-trailer, truck, bus) where walking as a mode of access is distance constrained.

Provision of Rural Bus Services

Rural bus services facilitate the movement of people to activities and services that are essential to rural communities, in their socio-economic life. In rural areas bus services are used not only for passenger travel, but also for activities connected with economic purposes of rural people, such as transport of agricultural inputs and marketing of produce.

In the provision of conventional bus services for rural transport, several problems identified as specific to rural areas are present; They are-

- * Low demand level; low population density and dispersal generate a demand that cannot be served economically by the conventional bus operations. Bus and crew productivity are low and many rural bus services are unremunerative.
- * Poor physical operating conditions; the operating conditions, especially the road surfaces are poor which increase vehicle maintenance costs of rural buses.
- * The shorter traffic day in rural areas aggravates the problem. These disadvantages demotivate operators, and raise the issue of criteria for service supply.

The Social Objective

The social objective of providing a reasonable level of mobility to rural people by the maintenance of a reasonable level of public transport services brings up the issue of who would meet the costs of provision. Where state financial support is provided to cover costs unmet by revenue, the minimum level of supply commensurate with the levels of financial support needs to be determined.

Determination of a Reasonable Minimum Level of Rural Bus Service Supply

It is best that the service requirement be location specific and be assessed at the local level at which it is experienced, with user community involvement. The assessed levels of service should be sufficiently flexible to respond to changing local circumstances. The level of service would need to be based on state financial support in terms of a specific user subsidy.

Financial Support for Rural Conventional Bus Services

Transport subsidies are payments intended to facilitate the production of a transportation service, where the revenue generated is not commensurate with the cost of provision. Subsidies may be direct payments to provider or user, a cost waived, or capital infusion, through vehicle or infrastructure provision to the provider of the service. In many countries such payments are not called "subsidies", but are termed "revenue support" or "purchase of service".

In rural Sri Lanka a mixed system of financially supported conventional bus services by the Regional Bus Companies (RBC) and unsubsidised private bus services prevail. Both offer services on similar routes and charge the same fare. However, the levels of services are not comparable. The RBC provide a wide network of services in the rural sector operating 2,183 bus routes.

The RBC receive buses free of cost from the state and part of the losses incurred on the services are reimbursed through state financial support. The rural

sector absorbs the largest proportion of RBC bus routes (59%), 39% of the kilometrage operated, and 42% of the passengers of the over-all RBC countrywide bus service provision.⁶ In year 2001 Rs.350 m was expended in support of rural bus services, which met only 68% of the RBC deficit incurred in the service provision. The RBC were forced to absorb 32% of the loss. In year 2002, this subsidy has been reduced to Rs.210 m; which would meet only 41% of the loss incurred in bus service provision. The RBC would now be burdened with 59% of the loss unmet by



financial support for service provision. In this situation a retraction of bus service supply in the rural sector can be expected. This could plunge rural areas with transport availability into areas of transport deprivation as, research studies have shown that rural communities are bus dependent for many journey purposes for which distance renders the use of walking, cycling and the use of many intermediate modes impractical.

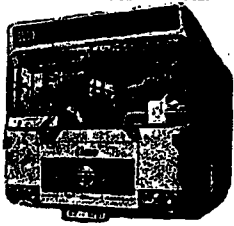
Private Provision of Bus Services

The presence of private bus operators is less seen in the rural sector, their operations being concentrated in the more lucrative urban and intercity bus service sectors.

Experience in Sri Lanka since 1972, and in several other countries including India, is that acceptable provision of rural bus services particularly from the user perspective, depend largely on the nature of ownership. Where ownership is public, the service provision is governed mainly by social considerations. The motivation of private provision is the commercial purpose of making profits. The social obligation is the compelling motive for rural bus service supply.

The Issue of Competitive Tenders for Rural Bus Services

The National Transport Commission (NTC) issues competitive tenders to purchase bus service supply for unserved rural areas. Tenders



offered by private operators revealed a subsidy requirement of around Rs.10 per km, where as the direct subsidy granted to the RBC was a

mere Rs.2.71 per km in 2001. In terms of the current curtailed subsidy the RBC would receive only Rs.1.73 per km. This situation has prompted the NTC to limit competitive tendering for rural bus services to just 15 routes country-wide.

Policy Options for Rural Bus Services

1. Provision of full revenue support for non-viable but needy rural bus services.

2. Encourage private sector participation through:

- * Financially supported competitive tenders, with clear service specifications.

- * Differential pricing for passenger service permits, with lower rates for rural areas, as an incentive to operators.

- * Community managed bus services.

3. Pursue in Parallel non Transport Options

The decentralization of fixed facilities especially health, education, has been seen to mitigate cost and inconvenience of travel and reduce transport demand in some areas. This should be further extended and encouraged in other facilities e.g. co-operatives, banks, storage facilities, primary markets, to access which rural people are seen to travel fairly long distances. However, the trade offs between the cost of spatial dispersal of socio-economic services and that of moving rural communities to existing service points need examination in such provision.

Mobile Services is another option to lessen the time, effort and cost expended by rural people in accessing the services they need, where threshold demand for such services exist.

Promote Intermediate Modes of Transport (IMTs)

Many countries including Sri Lanka do not have specific policies on IMTs, which need to be a very useful component of the rural transport system. Rural transport requires a wide variety of vehicles for passenger and goods transport over diverse terrain. Improved transport modes can encourage the production of agricultural and other goods by reducing the cost of moving inputs and the transport of produce to market, and enhance personal mobility.

IMTs can be non-motorized (NMTs) and motorized. They are comparatively low cost and cover a range of different uses and users. They are suitable for short distances and the carriage of small to medium loads in goods transport, permitting rural people to carry a greater total load in the same time, or to carry the same total load in less time and with less effort. Where they are utilized in Sri Lanka, such modes as the cycle trailer and motor cycle trailer have not only become useful transport aids but also avenues of income generation. They have further bestowed social benefits as the village ambulance and school service to primary schoolchildren.

While an explicit policy for IMT promotion is essential, a number of non-transport interventions need to be in place for the effective promotion of IMTs in rural areas. These include access to credit, tax concessions, training of small-scale manufacturers in enterprise management and business skills, and regulations that do not arbitrarily restrict the use of IMTs, but would ensure safety of passenger carriage.

Intermediate Rural Public Transport (IPT)

IPTs have become useful to rural people, where the demand for public transport is not met by conventional public transport modes (buses). They are flexible; demand responsive and provide alternative public transport services. Two such modes are the hand tractor with trailer for passenger and goods carriage and trucks converted with seats and temporary cover for passenger carriage. Their operations are illegal and both have poor comfort and safety levels. The demand for their services in rural areas for carriage of passenger and accompanied goods, make specific policy governing IPT operation necessary. A welcome development in this direction is that, on a proposal made by the Lanka Forum on Rural Transport Development (LFRTD), the NTC in collaboration with the Commissioner of Motor Traffic has set up a Committee to develop specifications and regulations to legalize the use of the multi purpose truck as an IPT mode with improved safety and comfort levels.

Enhance Safety and Accident Prevention

It is essential that safety precautions for conventional modes (buses, trucks) as well as IMTs and IPTs be improved. Attitudinal surveys among users of IPTs⁷ reveal the user awareness of the poor safety levels of these transport modes of which they are captive passengers. These vehicles need to be regulated to ensure the safety of the passengers, road worthiness of the vehicle and legality of the operation.

Explore Private - Public Partnerships in the Provision of Rural Transportation

In rural areas the largest private sector is the rural community itself. The ultimate users of each rural transport infrastructure network are identifiable

people with specific needs and methods of travel who are intimately aware of the transport needs of the specific area.

It is desirable to incorporate the local community in the planning, execution and the care of their transportation facilities. Informal cost sharing arrangements exist for both rural road improvement works and maintenance. The rural communities may motivate the local government authorities to provide technical assistance, materials and equipment while the community provides resources such as land and labour. Such cost sharing arrangements could be formalized through written contracts with the Pradeshiya Sabha (PS) as the public partner and the community as the private partner in an effort to increase the kms. of road which need and receive regular maintenance e.g.: community agreement to provide an agreed number of labour hours/days on payment or the community may assume the role of the local contractor.

In this direction ITDG - South Asia has implemented a number of 'Community roads' in the Southern Province on the concept of community participation and labour based technology in earth and gravel road construction and maintenance. Community mobilization, formation of Village Road Development Committees (institutional structure) and collaboration with the PS were important components of these projects. In such a project in Rathmalgaswewa, in the Puttalam district the community not only participated in the construction of the road infrastructure but also contributed 10% of their wages to inaugurate a fund for road maintenance. They also commenced a community transportation service using an IMT.

Mobilization of resources from both the public and the private sector is required to enhance the development impact of scarce resources.

Policy Framework

A policy framework for the Rural Transport sector needs to be formulated and set in place to extend the benefits of economic and social development to rural communities.

Footnotes

- ¹ Framework for poverty reduction in Sri Lanka.
- ² Fernando, P., Pannilage, U. (1993) 'The Rural Transport Policy Study'. Intermediate Technology, Sri Lanka
- ³ Kumara, A.S and Connors, G (2000). 'An Introduction to Road Funds- A conceptual case for Sri Lanka'
- ⁴ Amarasekera, R. M. (2001) 'Earth and Gravel Roads for Rural Accessibility'
- ⁵ University of Colombo, RDSC. (1992/93) 'Rural Transport Policy Study'
- ⁶ Diandas, J., Sahabandu, M. J., (1996). 'Study on Subsidy Allocation in Rural Transport and Operation of Bus Services on unremunerative routes'.
- ⁷ Lanka forum on Rural Transport Development, (2002). 'Study on Dual Purpose Vehicles'