

Session 4.2: Notes

The Role of Government in Transport Services

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1. The Preparation and Formulation of Rural Transport Policy
2. Promoting Rural Transport Services

Learning Objective

The purpose of this Session is to provide an overview of the development of Rural Transport Policy together with an examination of how Government can promote rural transport services. For the development of Rural Transport Policy the Notes include a general introduction to the issue, together with a case study from Malawi.

1. The Preparation and Formulation of Rural Transport Policy

Part A. The Nature of Policy

(Source: Robinson and Banjo, 1999)

Framework for Decision Making

Policy lays down the basic rules and requirements that can guide all decisions and actions that need to be taken with regard to rural transport infrastructure and transportation. In particular, it provides a framework within which professional and technical decisions can be made. If policy is well defined, then there are clear guidelines for taking decisions. Without a policy, actions can be haphazard, inconsistent, and biased. Normally, a policy is broad in scope. Procedures and practices can then be derived from the broad policy which can then be used to guide day-by-day decision making.

Public Administration

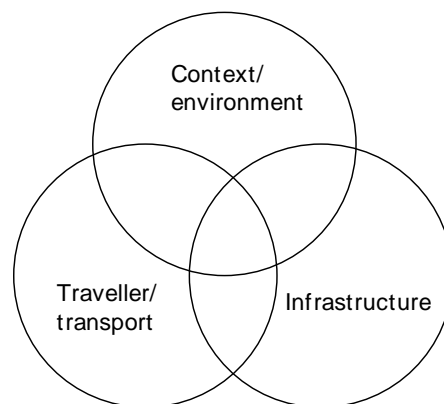
Policy is, by its nature, set by public administrative bodies rather than by the private sector. Aspects of rural transport policy can be set by national, regional and local government administrations. The policy will provide the basis for determining issues such as the distribution of budgets, about priorities, and all other administrative functions related to the aspects of rural transport that are the responsibility of the particular administration. To be really effective, there needs to be a consistency of policy between all levels of government, and this requires that the policy formulation process is well co-ordinated between the various public administrative bodies concerned.

Inter-relationships

Policy provides a framework that enables the following different things to be considered together, as conceptualised in Figure 1:

- The traveller and mode of transport
- The infrastructure on which the travel takes place
- The physical, social and political context or environment in which the travel takes place

Figure 1: Conceptualisation of Policy Relationships



The various inter-relationships can lead to confusion about the nature of policy in any particular area. This is often not helped because the structure of government does not follow the structure of sectors or of required policies. One of the aims of the policy formulation process is to 'make sense of this confusion' by tying all of the disparate aspects of policy together in a coherent manner.

Addressing Issues through Transport Policy

To be effective, transport policy must satisfy three main requirements. First it must ensure that a continuing capability exists to support an improved material standard of living. This corresponds to the concept of economic and financial sustainability. Second, it must generate the greatest possible improvement in the general quality of life, not merely an increase in traded goods. This relates to the concept of environmental and ecological sustainability. Third, the benefits that transport produces must be shared equitably by all sections of the community. This can be termed social sustainability.

National Level Policy

Required approach

Characteristically, the poor lack mobility and access to vital goods and services. In the poorest countries, the majority of the population are non-users of motorised transport, and their rural travel needs are not addressed by an approach to policy and planning that is concerned predominantly with the provision of road transport infrastructure. Conventional approaches are top-down, reflecting the development of motorised transport outwards from the centre, with the establishment of primary links, to secondary and then tertiary connections. Similarly, motor vehicle ownership starts with the wealthy, and then trickles down through decreasing income strata of society. In the least developed countries, the scarcity of the road network and extremely low levels of vehicle ownership implies limited relevance of such processes to the poorest. Their travel needs can only be met by policies which work from the bottom-upwards.

Access and mobility

Policy measures to improve physical access involve either increasing the mobility of rural people to reach a particular facility, or bringing the facilities closer to rural communities. Specific measures could include:

- Establish achievable national targets, based on levels of accessibility, for provision of water supply, rural health centres and educational facilities, and to prioritise the location of new facilities on the basis of degree of improvement in access that would result
- Give priority to reforestation, and include the establishment of sustainable and accessible sources of firewood as part of this policy
- Adopt a spatial planning approach to maximise improvements in accessibility
- Make funding available for the improvement and maintenance of local footpaths

- Ensure that commercial practices do not inadvertently cause transport and distribution problems; for example, the provision of fertiliser in bags that are too heavy for carrying on foot

Economic Sustainability

- Investments in all aspects of transport should be subject to rigorous cost-benefit analysis that encompasses social aspects and environmental considerations
- Priority for funding should be given to maintenance
- Proclamation of the network should be restricted to those parts for which adequate maintenance funding can be made available
- Commitment to disposal by government of loss-making transport parastatals, except where they serve a social purpose for which a subsidy can be made available

Social Sustainability

- Addressed by policy measures aiming to provide access and mobility, and that give emphasis to
 - pedestrian travel
 - reducing the physical burden of transport
 - reducing the travel and transport requirements of women
- Measures for policy formulation that combine top-down requirements from central government and bottom-up requirements determined from the participation of stakeholders, including the rural poor and women

Environmental Sustainability

- Introduction of environmental protection legislation, including requirements for environmental impact assessment in appropriate situations.

Infrastructure Provision and Management

Enabling environment for decentralisation:

Provision of rural transport infrastructure must be viewed within the broader context of rural development and rural service delivery. An arbitrary shift of responsibility for rural roads to weak local governments is unlikely to be successful. Strengthening local institutions through effective decentralisation is the centre piece of rural development and implies building local capacity in both public and private sectors. To do this, an enabling environment of sound policies, incentives, effective management structures, democratic control of local governments and trained and motivated people is needed.

Fiscal decentralisation:

Effective decentralisation (devolution) hinges on a balance of political, institutional and fiscal responsibilities. The allocation and control of finances lies at the root of decentralisation. Many decentralisation efforts are only partial: administrative responsibilities are assigned to local governments, whereas central governments remain in control of fiscal instruments. Partial decentralisation risks perpetuating

weak local governments and causes central government to take back or temporarily assume local government responsibilities due to poor performance.

Policy requirement

Sectoral organisational structures, based on the above and appropriate to local conditions, should be implemented as a policy measure.

Legal Framework

Proclamation

A coherent legal framework needs to be developed for the management of both local government and community roads and paths. This needs to include procedures for proclaiming roads. Legal instruments may be needed to delegate ownership to communities and other interest groups.

Inventories

Knowledge of which roads are to be managed requires that inventory records are kept of roads. The minimum legal requirement should be for road administrations responsible to keep an up-to-date *gazetteer*, which provides a basic record of all roads that have been proclaimed. A more stringent requirement would be to keep detailed maps and inventories of the network of roads, tracks, trails and paths. However, the requirement for such inventories should be simple, avoiding the costly collection of large amounts of data.

Community ownership

Institutional frameworks and incentives can be adopted to encourage citizens who live alongside unproclaimed roads to become effective owners and managers of the specific roads. Ownership of private roads requires a legal framework that permits communities and non-governmental entities to assume management responsibility. In many cases, a specific private roads law is necessary. Granting legal ownership to a community engenders a vested interest than can be translated into effective management. The legal framework also needs to allow for change in ownership. Procedures for this need to be explicit and prompt to allow change where existing legal owners can no longer cope with road management.

Road standards

The aim should be to optimise resources over the network rather than to provide predetermined widths and speeds for just a few selected roads. Design standards should be based on reliability and durability, and should recognise that all-year vehicle access may not always be necessary. Standards where 'economic road access' is required should be concentrated on essential access, spot surface improvements in critical sections, on surface drainage and essential structures, rather than on geometric characteristics determined by design speed. For the provision of 'social road access', road standard should relate to the frequency, seasonal timing, and type of services that will operate. Lowering standards normally enables more roads to be built for the same money.

Use of contractors

Rationalising and reducing demands on local government in-house capacity involves two basic steps:

- Contracting out the physical works to the private sector
- Contracting out the key management functions to local consultants

Execution of physical works by contract allows local governments to focus on what kinds, quantity and quality of infrastructure to provide, and how to finance its construction and maintenance. Although contract operations should normally be preferred, this may not always be straight forward. A policy decision in favour of using contractors is necessary and specific measures to encourage and assist the development of the local contracting industry may be necessary. This will require providing an enabling environment which makes labour-based works execution commercially attractive to contractors, as in Box 3. An option may include offering IMT as a means of payment, thus providing provision of infrastructure and promoting the use of IMT.

Works technology

The employment of local labour for road works can provide additional income for local people. Labour based methods should be considered the normal choice for rural roads works, although conditions may be inappropriate for this in very sparsely populated areas, and also for specific tasks such as long distance haulage. Requirements for this can be embodied within policy.

Means of Transport

IMTs

Policy should be designed to encourage the user of IMT, through measures such as (Barwell, 1996):

- Reducing the price and increasing the supply of bicycles through
 - review of tax and duty structure
 - elimination of constraints on availability of foreign exchange for import
 - elimination of any price fixing or business licensing constraints to the operation of a competitive market in the supply and distribution of bicycles and spare parts
- Encouragement, where feasible through policy and fiscal measures, of local manufacture of components and spare parts
- Using government, parastatal or NGO systems to market bicycles where a private sector distribution system is lacking; this should be implemented to complement rather than constrain and private sector activity in this area
- Agricultural policies and extension services to
 - develop ox training in areas that are appropriate for ox transport or on-field tasks
 - promote the use of donkeys both as hauliers and pack animals, in areas where they are not prone to serious endemic diseases, through provision of training and extension services

- address constraints imposed by diseases on the use of work animals
- Using IMT for official travel by government personnel in rural areas, where appropriate, both to increase the mobility and effectiveness of many officials, and for demonstration purposes
- Promoting the use of IMT by women through mass media communication, demonstration and community development initiatives, working closely with women's organisations

Critical factors

Three factors are critical to success:

- A long term perspective is important to the introduction of IMT to a new area
- The intervention and demonstration should be on a sufficient scale to make a significant impact
- It may be necessary to adapt IMT designs for use by women

Credit

The availability of credit can be a significant constraint on the use of IMT, and should be addressed through policy measures including:

- Provision and encouragement of access to credit by rural women, including groups of women for the purchase of IMT
- Encourage savings, and both NGOs and the private sector in the provision of credit
- Discourage subsidised interest rates which can damage the chances of establishing safe, responsible, private credit; however, grant elements could be used to promote IMT

Rural Transport services

The following policy measures may be appropriate (Barwell 1996):

- Remove unnecessary regulatory constraints to the provision and development of transport services by the private sector; regulations should focus on safety and insurance measures, and should not inhibit
 - the types of vehicle used
 - the routes on which they operate
 - the type of service operated - passenger, goods or both; fixed or flexible route
 - the fare rates charged
- Eliminate unnecessary constraints on the import of vehicles and, most importantly, spare parts, and by developing capability for vehicle maintenance and repair
- Support and promote innovative schemes for the operation of services targeted at local level needs, including services provided by 'non-commercial' operators such as local development associations; this support might involve
 - measures to encourage the financing of services, but only if there is clear evidence that the transport operation is financially viable
 - provision of training in transport management

- the adoption of a regulatory and licensing framework that facilitates innovative services, for example, using motorised IMT

Policy Implementation

Basic Steps of Policy Development

The policy development process needs itself to take a structured approach to policy formulation. Once a policy statement has been agreed and adopted by government, policy frameworks can then be put in place in the various levels of the administration and other public sector bodies that are involved in the sector.

Government Policy Statement

Government needs to draft a mission statement stating its general aims for rural travel and transport policy. Where the policy is very different to the existing situation, it may also be appropriate to have a vision identifying the strategic directions in which the organisation needs to move in order to deliver the policy. Objectives may need to be set in key areas; perhaps defining levels of accessibility to the road network, and the like. This drafting will normally be undertaken by a 'lead ministry' on behalf of government, but should involve consultation with a wide range of stakeholders.

Bodies Responsible for Implementing Policy

Once a statement of government policy is available, sector organisations charged with implementing the policy on behalf of government need to draft a mission statement, and possibly a vision, stating their own aims. Note that these must be entirely consistent with those put forward by government. For each area of the mission statement, the organisations need to set objectives to enable their performance to be monitored and measured; they may also need to draft standards to support these objectives with detailed information.

Part B. Rural Transport Policy development Process in Malawi

(Source: Government of the Republic of Malawi, 1999)

Background

In Malawi, it has been established that there are several factors that have limited the impact of efforts aimed at addressing rural travel and transport problems.

These include,

- i) lack of clear policies for authority to address rural transport problems;
- ii) insufficient development of appropriate technologies;
- iii) inadequate priority to the rural travel and transport sector;
- iv) inadequate planning and financing,
- v) weak institutional framework;
- vi) underdevelopment of the sector in terms of infrastructure and means; and the lack of co-ordination.

The Government of Malawi (GoM) and the Sub-Saharan Africa Transport Programme (SSATP) entered into an agreement to jointly undertake a series of

activities aimed at improving the travel and transport situation and livelihoods of rural communities in Malawi.

The Malawi Rural Travel and Transport Programme (MRTTP) is a new development initiative, established in 1999 to address issues in the transport sub-sector in a coherent manner. The goal of the MRTTP is to contribute to poverty reduction through the improvement of accessibility to socio-economic goods, services and facilities by rural communities.

The Programme has six objectives namely:

- i) To establish a clear rural travel and transport policy and institutional framework;
- ii) To promote rural travel and transport programmes;
- iii) To achieve integrated planning and rational allocation of resources;
- iv) To promote sustainable rural and transport infrastructure;
- v) To increase the availability of and improve access to means of travel and transport and
- vi) To promote gender equity in the rural travel and transport.

Activities under the programme focus, in particular on evolving policies and strategies and appropriate implementation instruments.

The intended beneficiaries of MRTTP are rural communities which will, through improved access and mobility, be able to much more readily use the social and economic services and facilities available. They will also benefit through increased use of appropriate means of travel and transport. Ministries/Departments and organizations involved in Rural Travel and Transport will also benefit through the policy reforms and enabling environment for co-ordination created by the programme.

Policy Framework

Malawi drafted a rural transport policy document in 1996 out of the experiences gained through the implementation of various pilot projects. Prior to this policy document, most of the rural transport interventions were initiated, planned and executed by respective line ministries and other organisations without proper co-ordination and complementarity. The draft policy document, which is a subset in National Transport Policy, is vital since it clearly spells out the overall goal, objectives, instruments/strategies, institutional framework and the rationale of the rural travel and transport policy.

The draft Rural Transport Policy aims at providing the framework within which the rural travel transport sub-sector can be developed in a well co-ordinated manner and ensures that interventions complement each other rather than duplicating or even conflicting with one another. In addition, the policy is geared towards promoting and ensuring that rural transport activities are implemented by the Government, the private sector and non-governmental organisations bearing in

mind the relevant investment policies, sectoral goals within clearly spelt out guidelines regarding investment, institutional regulatory mechanisms, pricing, cost recovery principles and issues such as gender and safety.

Specific Objectives of Rural Transport Policy

The following are the objectives of the RTP:

- a) Improvement of accessibility of rural people to socio-economic services and facilities such as hospitals, schools, markets, water sources, grinding mills, etc.;
- b) Promoting an integrated approach to rural transport planning and execution of rural transport interventions;
- c) Ensuring that transport safety standards are enforced in rural areas to minimise the loss of life and goods through accidents; and
- d) Reduction of gender imbalance against females in undertaking rural transport activities.

Rural Transport Policy Strategies

As part of the process of achieving the RTP objectives, the GoM will put in place several strategies. The strategies will be guided by the following three principles:

- a) Transport interventions will in particular, target disadvantaged communities.
- b) Ensuring that planning of road and waterway infrastructure and services accommodate the requirements of non-motorised transport means
- c) Communities will actively be involved at all levels in the identification and implementation of rural transport interventions.

Investment Strategies

- a) Fiscal policy measures on rural transport activities will be continually reviewed whenever necessary to stimulate the development of rural transport industry;
- b) Investment and ownership of rural transport means shall be encouraged in the local communities through provision of the necessary incentives;
- c) Technical assistance shall be selectively provided to rural artisans for training in appropriate rural transport technologies;
- d) Government shall promote the establishment of credit facilities to enable entrepreneurs procure transport means, manufacture and maintain them;
- e) Government shall encourage civic education within local communities for continued participation in self-help activities with the aim of improving maintenance by creating a sense of ownership;
- f) Capacity building in rural transport will be encouraged at all levels and supported by GoM and the private sector;
- g) Women and girls shall be encouraged to invest and take part in the decision making process relating to rural transport matters.

Regulatory Strategies

- a) The Road and Marine Traffic Acts shall be reviewed to take into account all the rural transport policy issues;
- b) Equal access to credit among women and men shall be promoted in the rural set up;

- c) Legislation shall be introduced to include non-motorised transport as part of the normal traffic on roads of Malawi;
- d) Pick-ups and any other fare paying passenger vehicles will be subjected to minimum safety standards as shall be stipulated in the amended Road Traffic Act;
- e) Vehicle axle load limits shall be strictly enforced on rural roads to avoid degradation of the rural road infrastructure;
- f) Government shall ensure use of appropriate standards in road infrastructure construction, rehabilitation and maintenance to minimise environmental degradation and accidents.

Pricing Strategies

Investment in rural transport shall be encouraged through the promotion of competition to avoid cartels and collusion on fare charges and freight rates. In order to facilitate this:

- a) Government shall continue monitoring the effects of liberalisation on fares and freight rates to ensure positive contribution to rural transport development;
- b) Government shall work out the vehicle operating costs to effectively review the rural transport policies;
- c) Competition among the rural transporters shall be encouraged to stabilise the fare charges and freight rates.

Institutional Framework

The Rural Travel and Transport sub-sector encompasses transport infrastructure (rural roads, tracks, trails, river crossings and paths), motor vehicles and transport services, and non-motorised means of transport. It also incorporates the physical access of rural people to basic goods, services and facilities. Rural transport activities are carried out by various institutions in both Government and the private sector. In this respect, the rural transport strategies and interventions will be implemented by all the relevant institutions countrywide.

At the district level line ministries/departments implement rural transport strategies through their district offices and also through District Development Committees (DDC), Area Development Committees (ADC) and Village Development Committees (VDC) which are local level planning and implementation units. The latter units also facilitate community participation in the planning and implementation of development projects and will be replaced by an elected District Assembly, Area Assembly and Ward Assembly, respectively as the new decentralization policy is being implemented. However, capacity at the district level is very limited and there are efforts underway to develop capacity to plan and manage development programmes.

Other Capacity Issues

Investment in the transport sector in Malawi has traditionally concentrated on the building of infrastructure for road, air and rail services serving commercial, urban and district centres with little attention to the improvement of rural transport

systems. This has led to an imbalance in investment in the transport industry. Rural transport has been marginalised hence the lack of financing for the sub-sector.

In order to correct this, a coherent rural transport planning and implementation approach was initiated in 1994 with the launching of the Malawi Government and UNDP 5th Country Programme. The Pilot Integrated Rural Transport Project (PIRTP) together with the Rural Motorised Transport Project (RMTP), the Village Access Roads and Bridges Assistance Unit (VARBAU) and the Rural Transport Coordination Unit formed the Rural Transport Component of Programme III (Social Development) in the GoM/UNDP 5th Country Programme. This effort led to improvements in the collection of data on rural transport problems/issues and the development of Integrated Rural Accessibility Planning (IRAP) tool for planning interventions to address existing problems.

The Government has in the process also recognised the fact that the lack of adequate funds to finance RTT programmes is one of the many factors impeding progress in redressing the imbalance and more specifically the development of the RTT sub-sector. To date, assistance has been provided by some donors and collaborating partners to set on course any substantial improvements and investments in the sub-sector. However, sustainability remains a problem because of lack of capacity and reliable sources of revenue for maintenance of the roads and transport infrastructure. The creation of the National Roads Authority (NRA) and a Road Fund for maintaining the road network including access roads, trails, tracks and footpaths promises a bright future.

Equally important is the implementation of the Decentralisation Policy, which will deconcentrate functions and devolve powers to local authorities through the creation of elected District Assemblies, Area Assemblies and Ward Assemblies. The decentralisation policy will provide the legal framework for re-arranging rural development priorities and creating an enabling environment for the creation and provision of RTT infrastructure and services. Without this framework, there is no appropriate representation at the grass-root level to adequately articulate rural travel and transport problems and to build local capacity on a sustainable basis.

Conclusions

At the end of the programme it is envisaged that rural travel and transport as a sub sector will have been promoted through an enhanced awareness and understanding of the Rural Travel and Transport Programmes. Secondly, a Policy and Institutional Framework on rural travel and transport will have been established. This will involve amongst others, the adoption by the Government of Malawi of the National Transport Policy, review of the Transport Act and the establishment of a framework for the implementation of MRTTP. Thirdly, the Programme will institutionalise integrated planning and the rational allocation of resources through the implementation of the district planning system throughout the country and the establishment of mechanisms for capital and recurrent funding for rural travel and transport interventions.

Currently, there are four key institutions/ministries involved in the planning, development and implementation of rural transport programmes, namely the National Economic Council (NEC), Ministry of Transport (MOT), Ministry of Works (MoW) and Department of District and Local Government Administration (DDLGA). At the grass-root level these ministries work through the District Development Committees (DDCs), the Area Development Committees (ADCs) and the Village Development Committees (VDCs). This is a top-down centralised planning structure which is not ideal bearing in mind the fact that transport needs and requirements at the community level are diverse and central planners, find it difficult to appreciate these divergent needs and aggregate them to satisfy the general rural transport requirements. Secondly, because of the complexity of the rural transport network, it is difficult for central government to gather and process information for planning purposes. Thirdly, resources take a long time to move from central government to the community level and this affects effectiveness of the programmes. Lastly, where non-transport interventions are required to improve accessibility, such issues may not be easily recognised at the central level because of ineffective and inefficient inter-sectoral consultations.

In order to overcome problems inherent in the top down centralized structure, the MRTTP will for the most part assign responsibilities for the implementation of the programme activities to grassroot organizations at community level. This will be supported centrally through policy guidance and co-ordination by the Department of District and Local Government Administration.

2. The Promotion of Rural Transport Services

(Source Starkey P. et al (2002) Improving Rural Mobility: Options for Developing Motorised and Non-Motorised Transport in Rural Areas. World Bank Technical Paper 525, Washington DC.)

Promoting Rural Mobility

Active promotion is required to turn the vicious circle of insufficient transport means and services in rural areas and inability to pay for them into a virtuous circle of better transport stimulating economic activity and social improvement, leading to easier access and more efficient transport means and services. The continuing problems of rural transport in many low density, low-income areas of Africa, Asia, and the Americas suggest the need to promote additional means of transport. Where transport technologies are being adopted in higher-density areas, promotion targeted at disadvantaged groups may be justified.

Importance of Inclusive, Participatory Methods

All rural transport interventions should address the complete transport picture, looking at mobility as an integrated solution along with complementary transport infrastructure and means of transport. Inclusive, participatory methods involving all stakeholders are essential to determine infrastructure priorities, appropriate

locations for facilities, and suitable means of transport. A recent review of efforts to promote local transport solutions (Starkey 2001) highlights the importance of participatory processes in planning, implementing, and evaluating promotional programs. Promotion and subsidies have little long-term effect unless the transport means being promoted are appropriate to the environment and to people's real and perceived needs. Programs often have disappointing outcomes when they promote specific transport means (rather than a range of options) and fail to distinguish between aspirations and realistic economic possibilities.

Setting Priorities

Promoting rural transport services to meet the needs of rural areas thus first requires setting priorities in light of needs and resources. Resources must then be mobilized at the national, provincial, and community levels. Policymakers and project planners need to understand and resolve conflicting demands, focusing resources on areas where improvements are most important for economic development or social equity. Needs assessments should take into account poverty reduction criteria, and planning should take a gender-sensitive approach and consider issues important to disadvantaged groups.

In assessing stakeholder needs, planners should involve as many transport users and service providers as possible to understand their diverse perspectives and preferences. Some preferences may be incompatible, and conflicts need to be addressed transparently and equitably. Collaboration between stakeholders should be encouraged from the outset. National networks, linked to international networks, can provide stakeholders with more options and should be an integral part of transport planning.

Transport planners should also survey existing services and resources through some type of participatory rural appraisal, working with target groups to choose interventions appropriate to the local environment and transport constraints. Density of demand, income levels, infrastructure provision, regulations, and culture significantly affect the level, price, and type of transport services provided.

Prioritization in terms of demand density will depend on policy objectives. Short-term political and economic objectives tend to favor high-density areas. But objectives of poverty reduction, social equity, and long-term development warrant interventions in low-density areas.

The challenge for transport programs is to identify and support the most appropriate interventions that can be undertaken by different stakeholders. In cases where low- and high density conditions coexist, mixing and matching will be required to find the right combination of interventions for each.

In determining priorities for interventions to improve rural transport, planners should assess:

- Level of economic demand for transport (relating to household budgets and opportunities for production, marketing, and employment).
- Costs of means of transport and operating inputs.
- Competition in transport markets.
- Existence of a critical mass of users and service providers.
- Type and quality of infrastructure.
- Availability of a range of appropriate and affordable means of transport.
- Policies, regulations, and government budgets.
- Impact of culture and gender relations on demand and use patterns

Implementing Programs and Pilot Activities

Once interventions and intended beneficiaries have been decided, pilot activities can be targeted to promote intermediate means of transport (motorized or non motorized) to enhance local productivity and complement longer distance motorized transport services. Involving stakeholders in monitoring and evaluation is also important, and findings should be widely shared to expedite learning and progress. The results of monitoring and evaluation of transport programs in different areas or countries can benefit all programs.

Encouraging Networking

Because of the magnitude of rural transport problems, the number of stakeholders, and the need for diverse interventions, broad national and international networking should be encouraged. So should local formal or informal networks (transport forums, national or provincial steering committees), which link disparate groups of people and involve them in planning, implementation, monitoring, and evaluation. Interactive exchanges through correspondence, visits, and workshops should facilitate constructive criticism, which is vital for learning, improving programs, and developing effective policies. Linking programs and organizations in different areas and countries provides mutual benefits, allowing stakeholders to learn of different rural transport options. Collaborative monitoring and evaluation can yield numerous benefits.

Promotion of rural transport services thus requires an inclusive, holistic approach that involves all stakeholders in a participatory process of assessing needs within a policy framework. Based on this process, governments and project planners can take steps in three areas to promote private provision of rural transport services: financial, regulatory, and complementary actions.

Financial Considerations

Among the main financial considerations for transport policymakers and planners are credit and subsidies for transport vehicles, operating incentives to encourage the provision of services in rural areas, and mechanisms to strengthen private supply, distribution, and maintenance systems.

Credit and Subsidies

Where even the simplest of transport technologies can represent a significant portion of a poor person's annual income, the availability of credit is an important component in encouraging adoption and the move toward critical mass. Credit interventions are most likely to be required when transport interventions are intended for poor people and rural residents. Where possible, credit facilities should be available to meet appropriate need whether for motorized or non motorized vehicles. Credit can dramatically speed the adoption of intermediate means of transport.

The pattern of growth in sales of animal-drawn carts in Senegal and Zambia shows how, in the absence of institutional credit, cart sales slowed.

Access to credit for vehicle purchases varies considerably. In Pakistan credit from extended family networks and from other agents in the freight business helps maintain the efficiency of motorized transport services. Credit is made available on a hire-purchase basis.

Although effective interest rates vary widely, the average is about 20 percent (inflation is about 8 percent), and the rate of default appears to be low. Elsewhere, organizations have used credit to improve access for users with few resources. Innovative credit schemes have enabled women with little cash to own various means of rural transport. formal or informal sources. Where credit is available, it is usually associated with targeted donor programs offering subsidized loans for particular means of transport. Some loans for expensive means of transport (such as tractors) have been made to groups, but the programs have had limited success.

Agricultural credit programs are seldom designed to provide loans for transport purchase, and seasonal agricultural loans are unlikely to be large enough nor the terms long enough for the purchase of means of transport (motorized or non-motorized). One cost-effective way of increasing credit for transport would be to increase cooperation between agricultural and transport agencies, allowing resources from the transport sector to be "piggy backed" onto agricultural credit programs. A good model is Thailand's Bank of Agriculture and Cooperatives, which lends for a variety of agricultural and transport machinery. This concept could be expanded to bicycles and animal carts.

Providing credit for specific means of transport can distort markets, however. Users may opt for the means of transport being promoted with credit rather than something that better meets their needs. The same lessons apply to subsidies. Subsidies can help launch new means of transport, but they are not always necessary or, in the case of unsuitable means or transport, sustainable. Subsidies tend to distort markets, and alternative means of transport may be unfairly disadvantaged. Subsidies on expensive formal sector and imported products create unfair competition with cheaper informal sector and indigenous products.

Operating Incentives

Creative solutions may be needed to ensure that remote rural areas in developing countries have adequate transport services. Operating subsidies are a common solution in high-income countries and may be appropriate for some areas in developing countries. Other solutions may include price incentives (through the tax system) to establish services based on new means of transport.

Indirect subsidies are widely used by government, donor projects, private firms, public projects, and NGOs. These include subsidies for training, preparing for manufacture (costs of tools and jigs), and pricing the initial outputs as if they had benefited from the economies of scale of large-scale production. Vehicle producers do not initially try to recover product development costs. Early models, produced by expensive small-batch production techniques, are costed as if they were part of larger runs with materials and components obtained in bulk. In pilot marketing arrangements, distribution costs and the value of staff time and travel needed for early product support and promotion are not reflected in initial prices.

Subsidies may be the only way to establish rural transport services in poor areas with low density of demand. Subsidies or cross-subsidies may also be needed to maintain a minimum level of service on social grounds. High-income countries have used a variety of transport subsidies to ensure passenger transport services at reasonable fares. The U.K. government has used fuel subsidies for buses and bus grants for rural routes. Some local authorities have provided specific route subsidies.

In developing countries most transport subsidies have been designed to protect (richer) urban populations from higher prices. Because rural transport is more informal and largely supplied by the private sector, rural transport operators have not received as many direct operating subsidies as their urban counterparts.

One way to implement operating subsidies is to license a number of routes together and require operators to bid competitively for the market. Groups of operators could be encouraged to form companies to bid on routes. Route frequencies, fares, and subsidy amounts would be made explicit during bidding and negotiations. Operators could compete to supply the service, specifying the minimum subsidy they would need to operate the route. Where direct competition is not possible, efficiency can be increased through a contract to supply the service. Competition occurs before the contract is signed and when the contract is up for renewal. This approach provides an alternative to detailed regulation. Lower fares and tariffs and regular service would encourage an expansion of the market since greater certainty would lead to greater use (for crop marketing, job seeking, and so on). One drawback to this approach is that once the bid is accepted and service begins, further competition may be curtailed. Furthermore, to guarantee service on routes with low demand, the operator may require protection from competition on profitable high-demand routes. In rural locations this may be hard to enforce, however.

Subsidizing services does not always help the people who need it most. The main beneficiaries are usually the richer segments of the population, who are the most frequent travelers. Although this is unlikely to be a problem when subsidizing specific services to remote rural populations, it can be an important consideration where one overall subsidy is provided to a network of suburban and rural routes. In the current environment, subsidies are unlikely to play a large role in rural transport services. But they should be examined as a solution to providing transport to remote locations where there is no regular service or where service frequency is measured in weeks or months.

Another way to increase demand is to lower taxes and duties, since the adoption of means of transport is strongly influenced by cost. It is much more costly to operate vehicles in rural areas than in other areas. Infrastructure is poor, distances are long, demand is dispersed, and incomes are low.

Reducing the capital costs of motor vehicles by reducing taxes and duties may dramatically increase the number of vehicles but may not have much effect on their availability in rural areas. But combining such measures with subsidies that lower the variable costs of operation may persuade some operators that rural operations are worth undertaking. Fuel is a major component of variable costs. Relief from taxes and duties on spare parts would also provide incentives to rural operators, but it may be difficult to target benefits to rural operators. The case for reductions in taxes and duties on vehicles (and spare parts) used mainly in rural areas is easier to make. Such measures can be used to promote intermediate means of transport; for example, imported bicycles, cart axles and related materials (new or used) could be exempt from import duties and taxes. When Pakistan and Sri Lanka adopted such policies, the number of tractors and power tillers used for transport increased considerably.

Supply, Distribution, and Maintenance Systems

Low use of intermediate means of transport in remote rural areas is often linked to a vicious circle of low demand and low supply. There are many cases of improved supply of vehicles and spare parts stimulating demand and leading to more rapid adoption.

The first step in increasing availability is identifying the limiting factors. These may be components and raw materials (local or imported), manufacturing facilities and skills, design of transport vehicles, capital availability, or marketing systems. Each may have to be addressed.

In some cases supply shortages can be overcome by training artisans. But in many cases that will not be enough. Technical training may need to be combined with credit and training in marketing and managing a small business.

In many low-density areas, supply problems may be linked to the weak purchasing power of users, particularly women. Suppliers will not invest in manufacturing or

stocks if they do not believe there is an economic market. In such situations, increasing rural purchasing power through credit programs, income-generating schemes, or subsidies should stimulate both demand for and supply of transport services.

The private sector could be used to source low-cost vehicles from around the world. Means of transport and spare parts have different prices and specifications around the world, and these significantly influence operating costs and transport charges. Major savings could be achieved by importing local transport solutions such as bicycles, because mass-produced imports are available for a fraction of the price that a small local industry can achieve. Imports could also limit the power of the monopolistic vehicle dealers found in some countries. Local assembly of cheap imported components is also an option.

Regulatory Considerations

Transport services require planning and regulation to operate effectively, particularly in the case of interventions for low-density areas and disadvantaged groups. But regulators and planners often lack resources and staff. Insufficient information and understanding can be key constraints to coherent, effective rural transport policy and regulation. Transport interventions rarely address intermediate means of transport or use participatory processes or gender analysis. Progress is slow because planners fail to build on earlier experiences and lessons from other countries, and cross-sectoral collaboration is rare.

Regulating Transport Operations

Liberalization does not necessarily mean abolishing all regulations and controls. At its most effective, liberalization helps harness competitive forces to provide market-oriented services under quantity and quality controls designed to reduce constraints to entry and make the sector more responsive to the market. In some countries, however, liberalization has led to the abolition of effective regulations, to the detriment of the traveling public and transport operators.

There are four main areas where effective regulation can support an efficient transport system:

- Quantity controls to ensure a reasonable matching of demand and supply.
- Quality controls to ensure minimum safety levels for passengers and other road users, as well as adequate environmental protection.
- Regulation of intermediate means of transport, including issues of animal welfare.
- Regulation to ensure fair competition and guard against the formation of strong cartels that prohibit entry or collude on price and routes.

In urban areas quantity controls involve limiting the number of vehicles and operators allowed to operate on routes and throughout the network to avoid excess capacity and to prevent operators from competing only on the most lucrative

routes. By contrast, the main issue for rural transport is how to increase service frequency. When operator associations impose quantity controls, even rural areas may be affected because the controls restrict the routes on which vehicles may travel and artificially restrict supply by enforcing queuing for passengers and loads.

The result is infrequent service and vehicles so overloaded that they often do not stop to pick up new passengers. Governments may need to intervene to increase service frequency by stopping the practice of queuing for loads. Quality licensing is also required in a liberalized environment, to protect passengers from overloaded and non roadworthy vehicles. Licensing is also a way to ensure that operators have adequate passenger insurance. Overly stringent quality licensing, however, may improve vehicle safety at the expense of reduced service frequency or higher fares.

In contrast to the weak regulation of motorized transport services, there is sometimes excessive control over intermediate means of transport. Some transport authorities prohibit certain modes of transport that they perceive to be backward, particularly from urban areas.

It is common for non motorized vehicles to be banned from major roads because of safety risks. Regulation of intermediate means of transport should cover basic safety devices such as reflectors. More important, intermediate means of transport can be improved through planning and appropriate infrastructure (Guitink 1996; Vidanpathirana 1999; Litman and others 2000).

The creation of separate lanes or routes for bicycles and other small or slow-moving vehicles can be particularly valuable. Bicycle lanes are found in cities around the world, from Amsterdam to Beijing. In Bamako a recently constructed road bridge and its access roads have separate pedestrian pavements and cycle lanes. Some Indian cities have separate lanes for pedestrians, cycles, rickshaws, and motor vehicles.

Such infrastructure has important planning and cost implications, as well as social and economic benefits. Attention to social and poverty reduction criteria ensured that international credit for the Jamuna road bridge in Bangladesh was made conditional on the inclusion of lanes for intermediate means of transport.

Protecting the welfare of transport animals requires a combination of education, legislation, and enforcement. Some countries have animal welfare laws, but few have active enforcement systems. Cuba recently introduced legislation to protect animals while promoting efficient, regulated transport services. People need to be convinced of the value of animal welfare and safety, with consistent enforcement to ensure compliance. Nongovernmental animal welfare organizations have an important role in highlighting issues and lobbying for enforcement.

Regulators can also play an important role in ensuring a level playing field for operators and in monitoring the quality and price of services. A regulatory authority can guard against anticompetitive practices and take action against them once legislation has been put in place.

Regulation can contribute to efficient transport systems only if there is effective enforcement and the planning information needed for sensible interventions. This requires adequate resources and cooperation between relevant authorities. If there is to be effective regulation to meet user need, there will have to be considerably more emphasis on strengthening the capacity of ministries of transport.

Increasing Operator Efficiency

The Bargaining Power of Transport Users. Rural communities are a captive market for transport operators because they have no choice of service providers and no means of pressuring operators to change their practices or lower their prices. Communities can increase their bargaining power by establishing user groups to negotiate with operators and lobby the government. User groups might include local government representatives, community leaders, farmers groups, cooperatives, and marketing people. Such groups need to be informed about what they can realistically expect from rural transport service providers.

Transport Associations and a Competitive Environment. Increased competition can increase vehicle use, operational efficiency, and customer satisfaction. Transport associations, unions, and informal cartels often control the market for transport services by setting fares, routes, and commission charges and requiring queuing for loads. This setup often leads to underused vehicles and inefficient operating practices.

But while transport unions and associations can cause distortions in the market for transport, they have important roles to play. They can:

- Represent the interests of rural transport operators and passengers.
- Promote safer, more comfortable rural transport.
- Train rural operators in vehicle maintenance and business management.
- Lobby government to recognize the importance of intermediate means of transport.
- Lobby government to grant price incentives to rural operators (such as tax rebates on fuel).
- Allow members to set prices according to their operating costs and not dictate fares, while ensuring that exploitation is not occurring.

The challenge is how to convince associations that their industry would be better served by adopting different operating practices. This can be done by:

- Fully involving associations in discussions on how to increase the efficiency of transport services, explaining how the efficiency savings will benefit both operators and customers.
- Explaining how increasing vehicle use and improving vehicle maintenance can reduce operating costs.

- Providing training for operators that includes vehicle maintenance and simple business management techniques. Funds for training programs could be channeled through associations to encourage ownership.
- Informing passenger groups and other transport users of the potential benefits of a more deregulated market and of the exercise of political influence.
- Explaining the value of more professional vehicle services.
- Study tours could be arranged to allow stakeholders to learn from the experiences of others.

Training and Support Services

Training and capacity building are needed to develop intermediate means of transport, participatory processes, and gender analysis. Education and media promotion efforts can increase acceptance of bicycles, animal power, and other non motorized means of transport. In addition, studies should be conducted on user needs and transport constraints, and national and international networks should exchange knowledge, ideas, and experiences. The International Forum for Rural Transport and Development (IFRTD) is an international network that assists such information exchange.

Getting the most out of efforts to improve rural transport services requires an educated workforce that understands the business of operating a vehicle. Vehicle operators and owners require training in three basic areas:

- Vehicle maintenance and operations, explaining the benefits of routine maintenance and slow running.
- Business management, increasing awareness of vehicle operating costs and the importance of long-term planning and making drivers responsible for keeping records and finding business.
- Customer service, which is especially important in a competitive environment, where customers have a choice of transport services.

For vehicle operators to have confidence in their ability to provide a service, they must have access to repair services. Rural areas need small-scale enterprises to repair and maintain vehicles and where appropriate to make spare parts and modify vehicles. These entrepreneurs will also need training in technical and business skills.

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