TECHNICAL NOTE ON RURAL TRANSPORT IN MULTI-SECTORAL AND COMMUNITY DRIVEN PROJECTS

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This Note provides practical guidance on rural transport interventions in multi-sectoral and community driven projects. It is targeted at people and agencies involved with physical access issues at the community and local government levels.

The Note starts with questions related to the type of the interventions and moves through to implementation stages. Links to detailed references are given after each sub-section. The final sub-section on Key Issues is a checklist.

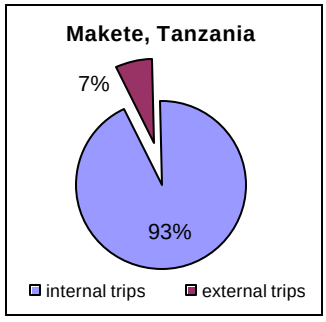
UNDERSTANDING THE PROBLEM AND FINDING THE SOLUTION

Transport in rural areas of developing countries consumes a great deal of time and effort. A lack of good access to economic and social facilities is a constraint on development as well as a contributory factor to high levels of poverty. Isolation sustains poverty and accentuates vulnerability.

> Studies in two areas of Tanzania found that, on average, each household spent a total of 40 to 50 hours per week on transport. Women undertook about 80 percent of this and men 20 percent.

The scale of the transport effort expended by many rural households in developing countries has been revealed by a number of studies over the last decade. The typical pattern to emerge is:

- An average adult spends between 1 and 2.5 hours every day purely on travel and transport. A large part of this is associated with domestic tasks such as collecting water and takes place in and around the village on local tracks and paths.
- Because women are usually responsible for domestic tasks, they often carry a disproportionately high part of the transport burden.
- The proportion of total time and effort spent on marketing crops is relatively small. Most other travel outside the village is for social, cultural and business reasons.



- Local people of all cultural and economic backgrounds consistently rate good access to health facilities as one of their highest priorities.
- There is a substantial jump in transport needs when moving from subsistence agriculture into marketing. This tends to be met by households employing more efficient means of transport, including both motorized and non-motorized modes, and not by significantly increasing the total time spent on transport.

Rural communities feel the constraint of the large travel and transport burden but, as improved access is a derived demand and not an end in itself, the problem may be articulated in a wide range of different ways. Moreover, certain transport burdens, particularly those concerned with women, children and related to domestic duties, may not be perceived by communities as an issue worthy of mention or susceptible to improvement. For these reasons, a good participatory planning process, combined with an awareness of rural access issues, is required when planning rural transport interventions.

Lessons from efforts to improve rural transport underline the need for a planning process that takes a holistic view and is highly participatory.

The range of potential solutions to rural transport problems can conveniently be grouped under three headings:

- ***Improvements to transport infrastructure:*** This comprises not only roads but also paths tracks, trails and footbridges (and water transport in some cases) that are important for many local journeys as well as being feeders to the road network.
- ***Improvements to the means of transport:*** Good infrastructure yields no benefit without the means of transport to use it. Improvements to transport services or the encouragement of a greater use of intermediate means of transport are examples of solutions that can often be the key to addressing rural access problems.
- ***Non-transport interventions,*** for example the relocation of facilities, can be the most effective means of improving access by reducing the distance between people and the services that they want to access. This is primarily an issue of planning and specialized tools such as Integrated Rural Accessibility Planning (IRAP) can assist this process.

It can often be appropriate to address all three categories of solution, particularly in multi-sector programs. Examples of the range of possible solutions

are given in the table at the very end of this note.

🗝 ***Key Point:*** Improving rural transport needs an understanding of the nature of the household transport burden and data on the existing rural transport infrastructure network. Solutions to transport needs can draw on a broad range of possible options and should not be restricted to road improvement alone. Sustainable solutions require good participatory methodologies.

☝ ***Remember:*** A large number of trips made by rural people are in and around their village area on footpaths and tracks away from the road network.

> Between Dharan and Dhankuta in Eastern Nepal foot traffic was measured at about 600,000 journeys per year on the porter trail with about 7,000 tonnes of goods imported annually.

☝ ***Remember:*** In some parts of the world, for example, Sub-Saharan Africa, women spend two to three times more hours per day than men in transport activities.

✗ ***Caution:*** Improved access can have negative impacts for example, increase in illegal logging or other natural resource exploitation, displacement of local industry, increase in traffic accidents (especially to pedestrians), increase in crime.

📖 ***Links:***

- 1993. Dawson & Barwell. Roads are not Enough. IT Publications.
- 1996. Barwell. Transport and the Village, World Bank Discussion Paper #344. http://www.worldbank.org/afr/ssatp/Working%20Papers/SSATPWP23.pdf
- 1996. Doran. Rural Transport. IT Publishing.
- Integrated Rural Accessibility Planning http://www.ilo.org/public/english/employment/recon/eiip/asist/index.htm

Rural Transport Policy and Strategy

Efforts to improve rural transport at the community and local government levels needs to take place within a national framework set by a rural transport policy and strategy. Most countries, however, do not have rural transport policies and strategies, and a common problem encountered with community level transport infrastructure, particularly roads, is a lack of clarity over ownership and the responsibility for managing and, especially, maintaining the infrastructure. This absence of policy and strategy is detrimental to the sustainability of investments.

The rural transport policy should give the overall direction within the broader context of local government and community development. It should be part of a national transport sector policy and support any strategies for rural development, decentralization, social action programs, and poverty reduction. The essentially local nature of rural transport requires strategies to be developed with a high degree of local consultation. The strategy should spell out the roles and responsibilities of the key stakeholders and establish a clear system of classification of the network.

Ownership of roads and other rural transport infrastructure must be defined in the national rural transport policy. There are at least two important categories relevant to rural transport infrastructure (RTI):

	Responsible Authority	**Type**
District	Local authority ("Government")	Roads connecting villages with the district headquarters Minor waterways and associated ferries
Community	Village Council / Community Based Organization ("Communal or Private")	Roads*, tracks, paths within the village and those providing access from the village tofarms and other socio-economic activities

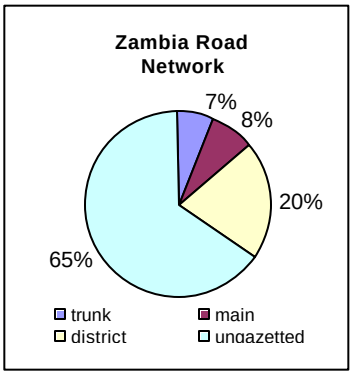
*For roads, also read rivers, waterways, canals and associated jetties and wharves in certain situations

District level RTI is the lowest level managed by government. Government has tax authority and relies on the budget to cover required expenditures. With Community level RTI is meant the structures that directly serve a community and is owned by the community, or association of villages or users . Such associations are an integral part of the institutional arrangement for managing roads in Sweden and Finland, and can usefully be explored also at the village level in developing countries.

The role of the community in both district and community level transport infrastructure needs to be spelled out in the rural transport strategy in respect of identifying, planning and implementing improvements and future maintenance. Institutional arrangement including roles and responsibilities will differ by activity and level of the RTI network as illustrated in the table below:

	Identification	**Planning**	**Implementation and maintenance**	**Labor**
District roads	District Engineer or local people	Local authority leads, community consulted	By contractors or force account	Paid
Community roads, tracks and paths	Local people	Community leads, local authority supports	Often by community effort with limited outside support	Often unpaid

☝ ***Remember***: Ungazetted (unclassified) roads usually constitute the largest part of the road network in terms of length. Their exact length and location is rarely well documented.



✗ ***Caution:*** Interventions made in the absence of an overall policy and strategy have a high risk of being fragmentary and lacking in the elements necessary for sustainability.

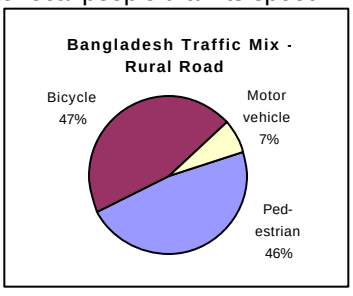
✗ ***Caution:*** Often, due to a lack of clear ownership arrangements and lack of local government capacity, communities are given the task of managing roads that belong to and should be taken care of by government. All work on district roads should be paid.

🕮 ***Links:***

- Howe. 1997. Transport for the Poor or Poor Transport. ILO.
- Malmberg Calvo. 1998. Options for Managing and Financing Rural Transport Infrastructure. World Bank Technical Paper #411. http://www.worlbank.org/afr/ssatp/techpaper/TP411.pdf
- Developing Rural Transport Policies and Strategies. World Bank (forthcoming). http://www.worldbank.org/transport/rural_tr/p&s_docs/ruralp&s.pdf
- The Rural Transport Policy Toolkit. 2002. www.transport-links.org/PolicyToolkit.htm

RURAL TRANSPORT SERVICES

Rural areas are often characterized by relatively low transport density with few existing motorized vehicles. In these situations the active promotion of rural transport services can be as important as, or more important than, the improvement of RTI. Almost invariably, the affordability and reliability of transport are more important to local people than its speed.



The predominant vehicles in many rural areas are bicycles, animal carts, and pack animals with a typical range of about 2 to 20 kilometers. These are often referred to as intermediate means of transport (IMTs). Promoting the increased use of IMTs, either as a personal means of transport or as a low-cost, commercially operated transport service, can be an effective way of reducing the amount of time and effort spent on transport by households and can contribute to increased economic activity.

Increased use can be achieved by a range of measures such as credit schemes to encourage wider ownership of means of transport, technical innovations that introduce or adapt means of transport that are more efficient and suitable for local needs and community ownership or management of transport services. Innovations such as introducing cycle trailers together with the training of local blacksmiths in their fabrication and repair has been successfully carried out in, for example, Sri Lanka where over 500 cycle trailers were purchased in one pilot scheme, many for use by petty traders.

Households' IMTs tend to be owned and operated by men, thus vehicle ownership is an important issue when assessing benefits. Where women control IMTs they are generally empowered by greater mobility and access to transport services. Where men control IMTs, women may still benefit indirectly if household tasks such as collecting water are taken over by men or boys, resulting in a shift in the transport burden from women to men.

Motorized transport services are operated by both public and private companies or individuals. The major constraint to their introduction is often the lack of a critical mass of demand to ensure a profit can be made. Motorized transport services tend to be more sensitive to the condition of infrastructure, as operators are reluctant to use routes where their vehicles risk damage or where they may periodically get stuck. Loop roads are often better than dead end roads for transport operators as they offer a greater possibility for picking and dropping passengers and loads.

Transport services can be encouraged by effective regulation to support the provision of safe, reliable transport that is environmentally friendly and provided in sufficient service quantity. Such regulation needs to balance liberalization, which encourages entry into the market and active competition, with controls to ensure minimum safety standards and to guard against the formation of cartels that collude on prices and routes.

Rural communities are often captive markets due to a lack of choice of transport service providers. Communities can increase their bargaining power by establishing user groups to negotiate with operators and lobby government. More efficient services can be provided where a good communication system exists. This can promote efficient transport broker services for both long-haul freight and the irregular needs of rural communities. Good communications (telephones,

radio, e-mail) can also reduce the need for travel.

✗ ***Caution:*** There are many examples of improved rural roads that carry little or no motor traffic due to a lack of adequate transport services. Transport services should always be assessed alongside investment consideration in roads and other RTI.

🕮 ***Links:***

- Starkey et al. 2002. Improving Rural Mobility. World Bank Technical Paper #525. http://www.worldbank.org/transport/publicat/twu-48.pdf
- I.T. Transport Ltd. 1996. Promoting Intermediate Means of Transport. World Bank SSATP Working Paper #20. http://www.worldbank.org/afr/ssatp/Working Papers/SSATPWP20.pdf

MAINTENANCE FINANCING

Establishing the source and amount of financing for future maintenance is key. Typically the government can only provide resources for maintenance of a part of the main road network—sometimes referred to as the "core network." A guiding principle is that infrastructure improvements should only be carried out up to the limit of what can be maintained in the future. Unless this principle is followed, improved infrastructure is likely to fall back into a state of disrepair within a few years.

The box below summarizes the potential sources of finance for rural transport infrastructure maintenance. For improvement works the same applies with the addition of donor support.

The potential sources for maintenance funding are any one or a combination of the following:

- Central government sometimes organized through a user-financed Road Fund.
- Local government from locally raised revenues.
- Communities sometimes in the form of contributions in kind, for example, labor or as community road funds, financed through local fund raising initiatives.

Central government revenues are typically inadequate for the full maintenance needs of the lower end of the transport network, and they are often tied to specified roads or road classes.

Local government revenues are often undeveloped and amounts are low in comparison to the maintenance needs of the transport network.

Community efforts are important but:

- Voluntary community efforts work best on infrastructure that communities own and for which they are responsible.
- The community needs to be clear on why it should provide resources (including its own labor) for road maintenance on certain roads when other roads are maintained with government funds, i.e., there should be a clear and consistent policy.
- External support may be required in the form of training, technical advice, and materials and equipment not easily available at the community level.

For community-managed infrastructure an estimate has to be made of the likely resources, primarily labor and/or cash, a community will be able to raise on a continuous basis for future maintenance. This should rule the extent and level of any rural transport infrastructure improvement.

🗝 ***Key Point:*** Do not improve infrastructure beyond the limit of what can be maintained in the future.

🗝 ***Key Point:*** Securing a steady source of maintenance financing can generate significant local employment for poor people.

🕮 ***Links:***

- Malmberg Calvo. 1998. Options for Managing and Financing Rural Transport Infrastructure. World Bank Technical Paper #411. http://www.worldbank.org/afr/ssatp/techpaper/TP411.pdf
- Heggie, Ian G. and Piers Vickers. 1998. Commercial Management and Financing of Roads. World Bank Technical Paper #409. http://www.worldbank.org/afr/ssatp/techpaper/tp409.pdf

THE PROVISION OF BASIC ACCESS

Design Standards

There is a tendency to promote standards that are too high for low volume infrastructure. This is often because engineers have little experience with, or confidence in, the design of very low trafficked infrastructure and are reluctant to depart from the norms set for higher level roads.

Road surface standard	Suitable for vpd
Earth	0 to 50
Gravel	20 to 500
Bitumen	Over 200

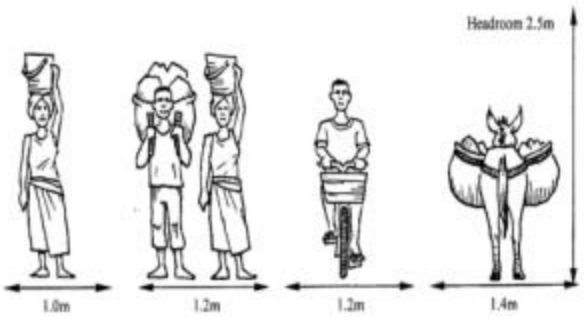
vpd = average motor vehicles per day.

Some guidelines for surface types for roads and tracks are given in the adjacent table based on average tropical climatic conditions. Very wet or very dry climates could modify these guidelines, and in those areas where gravel is scarce, the use of alternative surface treatments should be explored, for example, stone pitching, bituminous surface dressing, or leave as earth surface and accept higher maintenance requirements.

The guiding principle is that the engineering standard of a road, track, path, waterway, footbridge or wharf should be determined by the type and volume of traffic that uses the infrastructure. Infrastructure that is over-designed is not only more expensive than necessary to build, but also more expensive to maintain.

The running width of transport infrastructure should be the minimum necessary for the safe passage of traffic. Some guidelines are given below:

Width (metres)	Type and Level of Traffic
1-2	Suitable for footpaths and routes for bicycles
2.5	Minimum width for a track with animal carts and occasional motor vehicles
3	Minimum width for a single track road with passing places. Suitable for low volumes of traffic
4.5 – 6	Narrow roads permitting two way traffic. Suitable for small rural roads with <100 vpd
>6	Two way roads permitting large vehicles to pass comfortably, and with >100 vpd



Examples of Some Typical Width Standards for RTI

Although there is usually only a marginal difference in cost between roads of slightly different widths, for example, 6 meters and 4.5 meters, roads that are wider than necessary for the expected traffic should be avoided due to their tendency to lose shape quickly and higher future maintenance costs.

Levels of Intervention

The strategy adopted by many engineering departments is to carry out a program of full rehabilitation or improvement of transport infrastructure as part of a national program of steady expansion of the maintainable network. However, there are strong reasons for considering partial or spot improvement in the context of community driven development and rural transport infrastructure. Some of the key reasons are given in the box below.

Spot improvement implies that only a small section or sections of the road or waterway will be improved. As these "spots" are likely to be the most difficult sections of the route, quite a high unit cost of improvement may be required at the spot. It is essential to ensure that untreated sections are adequate for the prevailing conditions and transport types, or the spot may quickly appear somewhere else. Typical examples of spot improvements are (a) adding a gravel or stone pitched surface to a steep section of an earth road; (b) installing a culvert at a low spot in the road; (c) replacing a ford on a footpath with a footbridge; (d) clearing and dredging a short section of a waterway, and (e) installing ramps to ease entry /exit to jetties.

A key issue to consider in deciding the level of intervention is what level of access is the minimum desirable. Frequently people seek "all-weather" access without defining if this is essential or even what it strictly means. For example, a high level bridge at a river crossing may not be necessary if flash floods only cut the route for a few hours at a time. In a rural situation in a developing country, "all weather" access usually means passable all year round to most vehicles, although there may be temporary closure from time to time after heavy rain. The tolerable level of disruption should be established and may be affected, for example, by the need to move crops such as tea, which need to reach the factory quickly, or by the presence of a hospital accessed by the road.

Why consider spot improvements?

- Communities are often more concerned with improved "access" (or improved safety) than with smoother or faster routes. Access can be achieved cheaply and easily by focusing on the improvement of the main bottlenecks in the system (for example, where traffic is interrupted in the rainy season).
- Traffic levels on the lower end of the transport infrastructure network are often so low that full rehabilitation is not economically justifiable.
- Spot improvement allows a fixed amount of investment to be spread over a wider geographical area giving greater impact.
- The highest economic return per unit of investment is usually gained by carrying out the minimum works necessary to open up access on a route to more efficient forms of transport.
- The scale of work required for spot improvement is more achievable through voluntary community efforts than full rehabilitation.

Appropriate Methods

As a basic principle, maximizing the use of local resources for local infrastructure improvement has practical and economic benefits. In particular the use of labor-based methods[1] offers opportunities for the involvement of communities either as paid labor or as part of a community contribution in kind to the investment cost. Use of local stone masonry, or timber for structures can minimize costs and employ existing local skills. Collecting materials such as stone, aggregate and sand by hand can provide income-earning opportunities for local communities.

Using labor-based methods can produce a quality of work equal to that of machines for most road building activities whilst potentially engendering a sense of local participation and ownership. However,

[1] Labor-based methods use labour supported by some light equipment, for example, for haulage and compaction.

for good results these methods require good organization and strong supervision. A summary of the main pros and cons of using labor-based methods is given in the following table.

Advantages of labor-based methods	Disadvantages of labor-based methods
• Keeps funds in local community • Develops local skills (which can be used later for maintenance and repair of infrastructure as well as other income earning opportunities); • Develops sense of ownership in the community • Good for small and dispersed parcels of work • Creates local employment • Saves foreign exchange • Raises consciousness and commitment to continuing maintenance	• Requires good organization • Requires strong supervision • Requires available local labor that is preferably either unemployed or under-employed. • Where labor is paid, requires timely payment of wages • Risks of labor exploitation • Risk of bias in community for or against infrastructure as development priority depending on whether labor is paid or not.

Where labor is unpaid, there are a number of issues to be considered:

- Is the work being carried out predominantly by one group from within the community, for example, women or the poor?
- Is it possible to exercise sufficient discipline in the unpaid workforce to be able to provide effective supervision?
- Is the principle that labor is unpaid biasing the decisions of communities away from selecting projects involving a high labor element?

One way of avoiding any possible bias for or against labor intensive solutions on cost grounds is to ensure that cost sharing arrangements are based on "total costs," with the value of unpaid labor included based on the market wage rate.

Using labor-based methods, the labor content in road construction and improvement costs is typically in the range 30 to 50 percent of construction cost. For maintenance work the percentage labor cost can be in the range 50 to 80 percent. Corresponding percentages for equipment based work are 10 percent or less.

🗝 ***Key Point:*** Provide infrastructure suited to future needs. Use local resources and labor-based methods as much as possible.

🗲 ***Caution:*** Avoid over-design that is costly to build and costly to maintain.

🕮 ***Links:***

- Lebo & Schelling. 2001. Design and Appraisal of Rural Transport Infrastructure. World Bank TP No. 496. http://www.worldbank.org/afr/ssatp/techpaper/tp496.pdf
- Dennis. 2002. Footpaths & Tracks: A Field Manual for their Construction and Improvement. ILO.
- Longman. 1986. Building Roads by Hand.
- Hindson. 1986. Earth Roads their Construction and Maintenance. IT Publications.
- Numerous references and links to labor-based construction can be found via the following Web page: http://www.ilo.org/public/english/employment/recon/eiip/asist/index.htm

MAINTENANCE EXECUTION

Arrangements for maintenance of the improved infrastructure need to be clearly established before proceeding with any improvements. This is important as any delay in establishing maintenance, especially on an improved earth or gravel road, can lead to rapid deterioration and loss of the investment.

There is often an inadequate understanding of the concept of "maintenance" in many countries. It is sometimes perceived as a one-off activity rather than a continuous responsibility. There is also a distinction between "routine maintenance" activities needed on a very regular basis and "periodic maintenance" activities" needed only at intervals of several years. Moreover, maintenance is frequently confused with rehabilitation. Rehabilitation becomes necessary when maintenance is not done.

Communities have a vested interest in good maintenance. They can carry out the work as they are on the spot and the work necessary is generally straightforward requiring a minimum of training and resources.

For the district road system, the work should be supervised and paid by the local authority. On community roads, tracks and paths, community efforts on periodic "work days" are more usually applied. Although with community maintenance funds it is possible to set up conventional routine maintenance approaches using paid local labor.

Training of village-based road foreman in road maintenance and repairs has proved a good investment in some cases. They can be employed on the maintenance of the district roads in their locality as

and when required by the local authority. They can also be the specialists in their own community on the repair and maintenance of local roads, tracks and paths.

The cost of maintenance is not insignificant. A rule of thumb is that approximately 5 percent of the capital cost of RTI is required annually for maintenance. For an earth or gravel road, routine maintenance costs would typically be in the range USD200 to USD1,500 per kilometer per year.

🗝 ***Key Point:*** Formal agreements with owners concerning responsibilities for future maintenance should be a precondition for investment in infrastructure.

☝ ***Remember:*** USD1 invested in timely maintenance can typically save USD4 in future repair or rehabilitation costs and additional vehicle operating costs.

🗲 ***Caution:*** Studies in the 1980s in sub-Saharan Africa estimated that for every kilometer of road being built or rehabilitated, three kilometers were falling into disrepair due to a lack of maintenance.

🕮 ***Links:***

- ORN 1 and 2 Maintenance Management for District Engineers.
- International Road Maintenance Handbooks Volumes I-IV (PIARC).
- Guidelines on Community Participation in Road Maintenance.
- Refer to standard texts such as the "Overseas Road Note" series or PIARC Manuals for explanations of good practice.
  i. http://www.transport-links.org/transport_links/publications/publications_search.as
  ii. http://www.piarc.lcpc.fr/pub/03-05-e.htm;.

KEY ISSUES: CHECKLIST

Ownership

- ❑ Rural Transport Policy and/or legal framework in place specifying ownership and responsibilities.

Where community assumes responsibilities:

- ❑ Owner of infrastructure (for example, local government or community) identified in all cases.
- ❑ Community selection of access points for improvement.
- ❑ Community approve design.
- ❑ Community contribution fully acknowledged.

Planning and Design

- ❑ Community priority (a priority for access reasons, not short term employment generation).
- ❑ Clear articulation of access issues (disaggregated by users; poor/non poor, gender, age).
- ❑ Participatory review of alternative solutions (which is documented and justified).
- ❑ Designs shared with and endorsed by users.
- ❑ Designs 'good enough' for the purpose.
- ❑ Potential negative impacts assessed.
- ❑ Design appropriate to enable local maintenance (skills, technology, materials available etc.).

Approach

- ❑ Approach maximizes resource concentration for the local community.
- ❑ Framework for future decision making regarding the infrastructure includes users.
- ❑ Maximization of skills transfer.
- ❑ Equitable distribution of paid and unpaid work respectively.
- ❑ Good supervision of work (time /quality).
- ❑ Community involved in monitoring progress and quality of work.
- ❑ Community contribution and ownership acknowledged and publicized.

Maintenance

- ❑ Responsibilities and roles in maintenance clarified and publicized: formal agreements in place.
- ❑ Funds and other resources for maintenance secured and agreements signed.
- ❑ Training/awareness raising provided in planning and managing maintenance, budgeting and financing maintenance, civic care, etc.
- ❑ Maintenance plans and program in place.
- ❑ National/regional maintenance systems fair and consistent.

Evaluation

- ❑ Social and economic impacts assessed.
- ❑ Community involved in monitoring and evaluation of process and impact.
- ❑ Quality standards adhered to.
- ❑ Maintenance program operating.
- ❑ Short term economic benefits through labor intensive methods assessed.
- ❑ Appropriateness of design for the need.

Some alternative solutions to access problems

Improvement to physical infrastructure	Improvement in transport services	Non-transport interventions
• Construction / Upgrading / Rehabilitation • Spot improvements/spot repairs • Road maintenance • Improved footpaths – safer / made accessible to bicycles and carts • Improved waterways – better wharves/jetties • Footbridges – for example, on routes to school • Steps, handrails, stepping stones, (for headloading/draught animals)	• Community owned or managed buses • Ferries • Bicycles/bicycle trailers • Motorcycle ambulances • Animal carts • Improved collective transport arrangements out of community for example, access to collection points for crops/people • Capacity building of transport operator and user groups.	• Relocation or improvement/upgrading of services into community e.g. health posts, informal education, resident agri-extensionists, water provision, fire wood cultivation • More fuel efficient stoves • Improve telecommunications • Crop diversification - less perishable/subject to damage, low volume/weight but high value crops • Improved services/facilities at collection points/service points outside community, for example, proper storage, waiting area/accommodation/sanitation facilities/secure parking for trucks/bicycles etc for drivers/head loaders, boarding accommodation for students/ those accompanying the sick etc • Agro-processing in situ - reduces perishability/volume and allows transportation in season when access easiest and value higher

This Note has been prepared by the Rural Transport Thematic Group in collaboration with the Social Development Department, the Social Funds Thematic Groups, and the Agriculture and Rural Development Department, with the assistance of Intermediate Technology Transport Ltd. For additional copies of this Note or queries, please contact the World Bank Transport Help Desk, transport@worldbank.org