

## **RURAL TRANSPORT AND LOCAL GOVERNMENT UNITS HOW TO IMPROVE RURAL TRANSPORT FOR THE RURAL POOR?**

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### **ABSTRACT**

*The role of transport is to facilitate the access people have to goods, services and information. Improved transport reduces isolation. People need to have access to a wide variety of goods, services and information in order to live a productive economic and social life. Transport is basically concerned with improving the mobility of individuals and the goods and services they need. Improved transport results in faster, safer, cheaper, more reliable and more comfortable travel of people and less spoilage of products. This is conventionally done by the construction of road infrastructure, anticipating a response by the market (private or state) to use the road.*

*Transport patterns in developing countries and developed countries, in urban areas and rural areas differ substantially. Research work revealed that rural transport in developing countries has its own very distinct features. It is characterized by people moving around in rural areas for a variety of subsistence, social and economic purposes. Much of the transport takes place on foot and much of it is in and around the community away from the road network. If transport is the means to improve mobility of the people to gain access to the services and facilities they need, then planning for rural transport should not overlook the option of non-road interventions such as improving the siting of services, improving transport services and developing village infrastructure (such as paths, tracks, trails and footbridges) to improve mobility and hence access.*

*In the Asian and Pacific region responsibilities for rural infrastructure development have been decentralized in a large number of countries. Local governments have the responsibility to decide what should be built and where and how it should be built. There is therefore a need to develop appropriate local planning systems, procedures and practices to allocate the resources available to improve rural access and transport efficiently and effectively.*

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## I. RURAL TRANSPORT

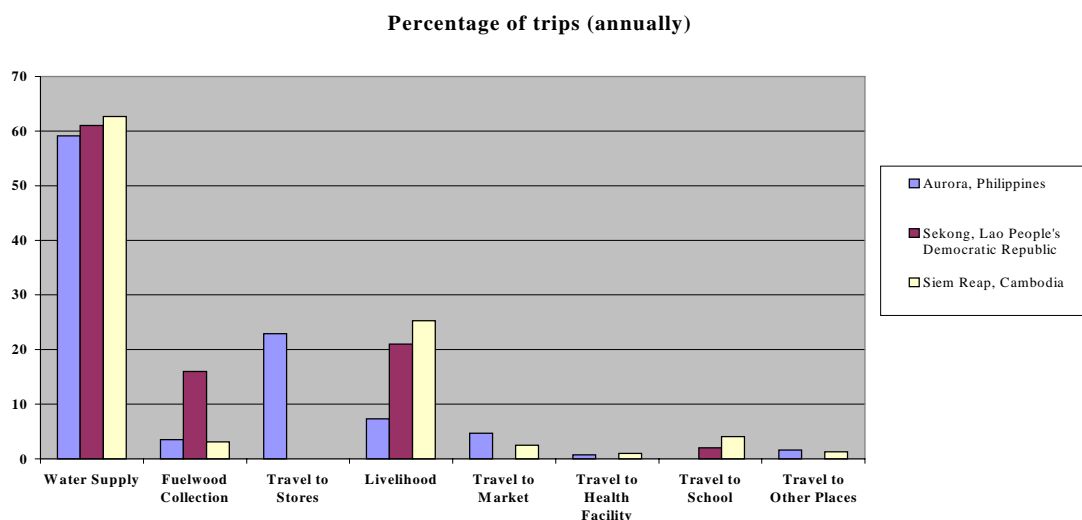
Rural transport is a subject that is receiving increasingly more attention from development specialists. Over the last decade, the World Bank, ILO and other organizations concerned with rural development and poverty alleviation have initiated programmes and projects to understand better the role that rural transport plays in the local economy and to demonstrate the importance, variety and extent of rural transport.

Transport patterns between countries, within a country and between rural and urban areas differ considerably. Rural transport for the purpose of this article is defined as the movement of people and goods in rural areas by any conceivable means, for any conceivable purpose along any conceivable route. Research work has revealed that rural transport in developing countries has its own very distinct features. It is characterized by people moving themselves and their goods around in rural areas for a variety of subsistence, social and economic purposes. Some of this transport takes place in motorized vehicles along well-maintained roads. Much of this transport however takes place in and around the community on foot or on rough roads often with intermediate modes of transport such as bicycles, motorcycles, tricycles or with small boats.

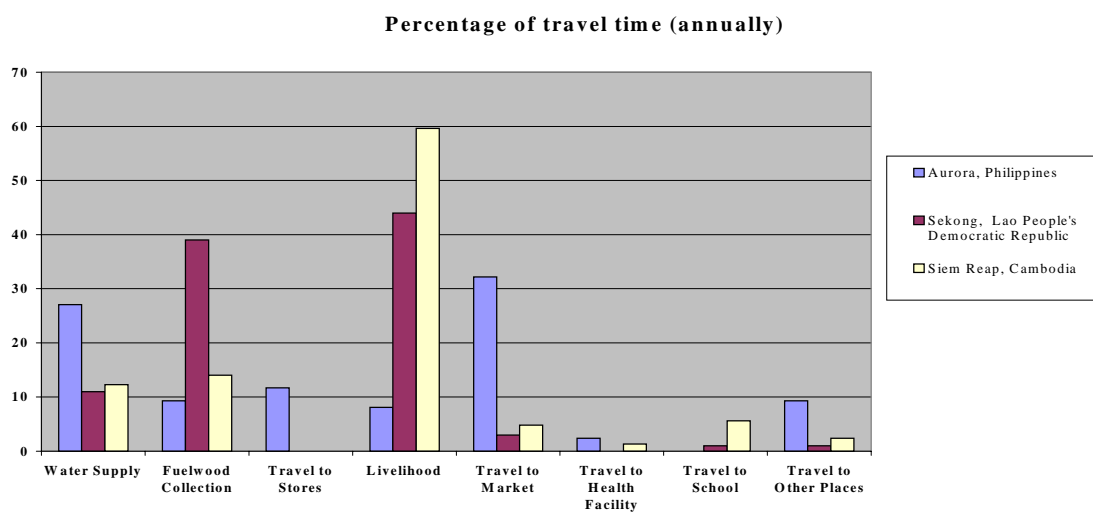


Transport in itself is a means to an end. The ultimate aim is to obtain access. Access to the basic, social and economic good, services and facilities to which rural communities need to have access to be able to live a socially and economically productive and decent life. The transport needs of rural people are associated with basic needs such as water, food and firewood, social welfare aspects of rural life such as health and education and with economic welfare aspects of rural life such as agriculture, livestock and home industries. The following two figures show the importance of transport in terms of trips and time spent and provide a breakdown by purpose for three fairly remote areas in Cambodia, the Lao People's Democratic Republic and the Philippines.

**Figure 1. Trip distribution by purpose**



**Figure 2. Travel time distribution**



The two figures show that in the three areas surveyed most trips are for and time is spent on subsistence purposes such as the collection of water and firewood and the growing and harvesting of crops (livelihood). Of secondary importance are trips to markets and shops to buy or sell goods. Travel to schools, health centres and other social and cultural places, in terms of time and effort, come in as third. It should be emphasized here that this does not imply that access to schools and health centres are, or are perceived to be, of secondary importance.

## II. RURAL TRANSPORT PLANNING AND DECENTRALIZATION

If the aim is to improve rural transport we have to address the real transport needs of the rural people. This requires working with the rural people to identify their transport needs, possible interventions, priorities and to design the most appropriate projects that will either improve people's mobility or lessen their demand for transport. This can not be done by specialized institutions far away from where rural people move themselves and their products.

The conventional approach to transport planning however has always been sectoral, top-down and non-participatory. Transport planning is often done by specialized ministries, agencies and (international) consultancy firms. Projects and investments resulting from this planning often fail to reach the rural poor. The reason for this seems obvious.

Clearly, rural transport planning needs to be based on the understanding of the potential of an area, its people and their problems and needs. How to measure this potential? Who is in the best position to do this? Planners at the central level or their counterparts at the local level? The question to the last question seems rather obvious. Planners at the local level are in the best position to identify and address the real transport needs in their areas of jurisdiction.

The opportunity to bring rural transport planning closer to where rural transport happens came with the recent drive to decentralize. The decentralization process that has started and is now underway in many countries in the Asian and Pacific region enables a situation in which local government units can plan, provide and manage the rural transport system. Local government units are not only closer to the communities and therefore in a better position to understand their real needs, they are also in a better position to facilitate the organization of villages and to improve their technical capabilities to perform certain tasks.

For local governments of rural areas a major issue is rural development and investment choices that are associated with this process. Transport is obviously an important factor in rural development in that its existence or absence limits the opportunity that rural people have to improve their social and economic well being. Transport however is only one of the factors and rural transport however is often not considered as a sector as such. It cuts across various sectors and interventions to improve rural transport therefore usually result more from a sectoral than an integrated area-based approach.

Furthermore, local technicians often lack skills to apply such an integrated approach towards improving rural transport. Investments in procedures and capacity to address this lack of local capacity, knowledge and techniques generally contribute to the development in rural areas and can pay off handsomely. The International Labour Organization has developed such an approach. This approach, Integrated Rural Accessibility Planning (IRAP), is used to strengthen capacity at local government level for improved rural access planning. IRAP is basically a set of local level rural infrastructure planning tools for use at the community and local government level. In the process of applying it, capacity is built at local government level to sustain the process.

IRAP is an area-based planning process which assists local governments to identify the "real" access needs of the local communities and define and prioritise interventions to

improve access. Interventions to either improve rural mobility (such as roads, bridges and tracks) or improve the distribution of facilities and services (such as water supplies, schools and health centres). The whole process is participatory and involves the local communities and local government officials representing the different sectors. Access planning therefore encompasses rural transport planning as improving mobility as one of the two main strategies to improve rural access. The IRAP approach is unique in that it seeks to maximize participation during the planning phase and in that it promotes the use of local resources including labour for project implementation.

### **III. THE INTEGRATED RURAL ACCESSIBILITY PLANNING PROCESS**

IRAP focuses on the household, and measures its access needs in terms of the time and effort spent to get access. Because of poor access, a lot of time and effort is often spent by rural households to obtain access or sometimes access is almost impossible because of long distances and a poor transport system.

The underlying principal of accessibility planning is to reduce the difficulty of achieving access. Improved access improves living conditions and makes it easier for people to satisfy their basic social and economic needs. Furthermore, time-savings as a result of improved access could be used for alternative social and economic activities.



#### ***Steps 1 and 2: Data collection and processing***

The first step is to carry out a situation analysis that identifies the access problems in target areas both regarding the mobility of the population and the location and use of services and facilities. Communities and local government organizations are involved in this process and provide the needed information. Local enumerators are trained to carry out the needed survey and to process the data. Data comprise secondary data (such as population and

agriculture outputs) and primary data. At the household level, primary data are collected on access and transport characteristics such as use of facilities, travel purposes and travel times. After collection, the data are processed and analysed, which results in a demand-oriented access or transport needs assessment of the target areas.



**Step 3: Preparation of accessibility profiles, indicators and maps**

Access profiles of target areas cover a set of basic information on both locations of services and facilities and the levels of difficulty that people have in gaining access to them. For each sector, Accessibility Indicators are prepared. The indicators are a function of different variables such as the number of households in a target area, the average time spent to reach each facility/service, the frequency of travel to a facility and selected qualitative variables, which are derived and defined at the village level. A simple formula is used to calculate the Accessibility Indicator. In addition, based on the gathered information, accessibility maps are prepared in order to have a better visual presentation of access profiles in target areas and to identify alternative solutions to access problems. An example of an Accessibility Indicator is:

Number of elementary school age children in village, x      *times*      (Average time to travel to school, y      *minus*      Minimum acceptable standard, z)

If values for x, y and z are 150, 60 minutes and 45 minutes respectively, the Accessibility Indicator is:  $150 \times (60\text{min} - 45\text{min}) = 2250$



#### ***Step 4: Prioritisation***

The larger the value of the Accessibility Indicators, the worse is the access problem. The target areas are then ranked/prioritised accordingly. The target area with the worst access indicator in a particular sector gets the highest priority for access interventions in that sector.



#### ***Step 5 and 6: Data validation and defining targets and objectives***

The access profiles will be presented and the gathered data validated in a training workshop which is participated in by representatives of local authorities, donor organizations, NGOs and communities. During the workshop the sectoral objectives for access improvements will be defined. Where national targets exist, these will be used to define overall objectives, for example, all households in an area should have direct access to potable

water, not exceeding a distance of 500 meters, all year around. The targets should be realistic and attainable, based on the available resources.



#### ***Step 7: Project identification***

The results of the above mentioned workshop contribute to identification of a set of interventions/projects which would most efficiently reduce the time and effort involved in obtaining access to supplies, services and facilities. These interventions are related to transport (rural transport infrastructure, low cost means of transport or transport services), and non-transport services (for example, better distribution or the most appropriate locations of services including water pumps and wells, schools, clinics and markets).

#### ***Step 8: Implementation, monitoring and evaluation***

The identified projects are then considered and integrated into an overall local development planning system for implementation, monitoring and evaluation. The target communities and organizations are involved not only in planning but they also contribute to implementation and maintenance of what has been planned.

### **IV. IMPROVING TRANSPORT FOR THE RURAL POOR**

Poor rural areas in developing countries often have special transport needs. The majority of people in these areas do not own motorized vehicles and are therefore not directly benefiting from a conventional transport planning approach which focuses on roads and motorized transport. The transport patterns of rural poor are dominated by short distance trips often on foot or by intermediate means of transport such as bicycles or motorcycles. Longer distance trips usually involves motorized transport services and an increase in rural mobility is often associated with an improvement in rural transport services.

If rural transport is indeed the means to improve mobility for rural people to gain access to the services, goods and facilities they need, then planning for rural transport should not overlook the option of non-road interventions such as footbridges, paths, tracks and trails. This latter network is the network along which many rural people move and these tracks and trails are in fact their “roads”.

Furthermore, improving the rural road network does not necessarily improve access for the rural poor. Rural people may be too poor to purchase vehicles. Their access improvements often result from more frequent, more reliable, safer and less expensive transport services. If imperfections in the transport market exist or if the development of transport services is hampered by a lack of competition or suffering from restrictive government legislation and practices, it requires a coherent action to improved the environment within which transport services operate to go hand in hand with the improvements to the road network.

## CONCLUSION

IRAP links planning to implementation. One of the main features is the immediate outputs it produces in terms of priorities and investment proposals. These are “ready-made” to enter the political arena for resource allocation and often result in investment allocations according to the real needs of the people. IRAP presents a set of tool which can easily be used at the local level. In addition, the priorities identified and investment proposals designed seek to maximize the use of local resources including local capacity, knowledge, capital and labour and have therefore an incremental impact on poverty and employment.

### For further reading

1. Geoff Edmonds, Chris Donnges and Nori Palarca, 1994. *Guidelines on Integrated Rural Accessibility Planning*, ILO/DILG, Manila.
2. Ron Dennis, 1998. *Rural Accessibility Technical Papers (RATP1) – Rural Transport and Accessibility – A Synthesis*, ILO, Geneva.
3. Kanyhama Dixon-Fyle, 1998. *Rural Accessibility Technical Papers (RATP2) – Accessibility Planning and Local Developments*, ILO, Geneva.
4. Geoff Edmonds, 1998. *Rural Accessibility Technical Papers (RATP3) – Wasted Time*, ILO, Geneva.
5. Chris Donnges, 1999. *Rural Accessibility Technical Papers (RATP4) – Rural Access and Employment – The Lao Experience*, ILO, Geneva.
6. ILO, 1999. *Rural Accessibility Technical Papers (RATP5) – Integrated Rural Accessibility Planning – Expert Group’s Meeting Dhaka*, ILO.
7. ILO ASIST- AP, 2000. *Integrated Rural Accessibility Planning – Second Expert Group’s Meeting Bangkok*, ILO.
8. ILO IRAP Philippines, 2000. *IRAP Trainors Manual – IRAP Philippines*, Manila.

To follow the development of new IRAP test/demonstration projects have a look at the Regional University Network – Asia-Pacific website: [www.geocities.com/run\\_ap](http://www.geocities.com/run_ap)

