Contract No. R 7866

Partnerships to improve access and quality of public transport for the urban poor

inception report

M. Sohail, D. Maunder, & D. Mitlin

Amended October 2001

www.lboro.ac.uk/wedc/projects/ptup/
© WEDC, Loughborough University, 2001

This publication is also available on-line at:
http://www.lboro.ac.uk/wedc/projects/ptup/

This document is an output from a project funded by the UK Department for International Development (DFID) for the benefit of low-income countries. The views expressed are not necessarily those of DFID.
Contents

Introduction 5
Process of the report development 5
Structure of the report 5
Project focus 5

Setting transport within the Sustainable Livelihoods Approach 6

Key public transport issues affecting the urban poor 8

Key considerations 13

Research design 14
Background 14
Study location 14
Research methodology 14
Research partners 15
The proposed work plan 16
Follow up from Phase 1 16

Phase 2 17
Mode of transport to be focused 17
Major components of the study 17
Key perspectives 18
Major activities to be carried out 18
Issues to be discussed during the interviews 19
Capacity building through research 19

Linkages with the TLR and other networks 20
Informing multi-lateral initiatives 20
Issues of social exclusions and human rights 20
Target audience, information dissemination channels and proposed dissemination strategies 21

Proposed dissemination strategies 21

Bibliography 23

Appendix 1: Research proposal log frame 25

Appendix 2: Key issues 27
1. Informal settlements 27
2. Gender 28
3. Special needs 28
4. Road accidents 29
5. Environmental aspects 29
6. Motorization 30
7. Non-motorized vehicles 30
8. Pedestrians 31
9. Institutional reform 31
10. Income generation and enterprise development 32
11. Control of land use 32
12. Bus services 33
13. Consensus building mechanisms 34

Appendix 3: Project work plan 35

Appendix 4: Methodological considerations 38
**Goal**

T3 Transport for urban and rural poor

**Purpose**

To improve the sustainable livelihoods of the poor through improved access to and quality of urban public transport by developing guidelines for use by policymakers and operators in urban transport.

**Outputs**

- Short country paper containing review, situation analysis, and policy conclusions related to the issues of access to and quality of public transport.
- Draft guidelines containing lessons learned and findings to improve access to and quality of public transport for the urban poor.
- Electronic conference on the draft guidelines.
- International dissemination workshop.
- A summary for publication in the local popular press and direct distribution to community organizations.
- Guidelines on issues of access to and quality of public transport for the urban poor (final version).
- Journal article based on this research.

Note: The logical framework of the project is attached as Appendix 1.
Introduction
This project is the second phase of an earlier project (R7455) funded by the Department for International Development (DFID) Infrastructure and Urban Development Department. The UK-based project team includes WEDC, Loughborough University; TRL Limited, UK; and International Institute for Environment and Development (IIED). The local collaborators include: Urban Resources Centre, Karachi; Sevanathe, Colombo; Mr. Ataullah Khan, Faisalabad; and Dr. Komb, Dar-es-Salam. The project is managed by Dr. M. Sohail, WEDC, Loughborough University, UK.

Process of the report development
This report represents an outcome of a consultative process within the project team, including members based in the UK and our partners in the study locations; meetings with the TRL-led KaR team ‘Activity patterns, transport and policies for the urban poor’ (e.g. 18/12/00); reflections on Phase 1 of this project; and finally an inception workshop held on 22/2/01 in the UK. The project partners have already been mobilized in the study locations.

Structure of the report
The purpose of this report is to indicate the likely direction that the project will take within the framework provided by the research contract between WEDC and DFID. This report draws principally upon a literature review and is structured as follows:

- A clear definition of the project focus
- Setting transport in the sustainable livelihoods context
- Key issues and considerations
- Proposed methodology
- The proposed work plan
- Dissemination strategy

Project focus
Urban public transport is a key link to other services and livelihood assets. In the context of the project, public transport services are defined as those comprising formal and informal mechanisms where a fare is paid by a passenger. A better understanding of inter- and intra-linkages of public transport and its impacts on other services is required to improve the sustainable livelihoods of the poor. Partnerships, both informal and formal, have responded to provide access for the poor to public transport.

There is a lack of understanding about how such partnerships function to deliver public transport services and what can be done to support such partnerships to improve accessibility and quality of public transport. This project will contribute by focusing on issues at both the policy and operational levels in relation to accessibility and quality of public transport. This research will help to fill in the knowledge gap by identifying the key stakeholders, understanding roles and responsibilities, and analysing the working mechanisms used to deliver services. The research will support the poor by identifying and developing livelihood strategies under existing processes, structures, and constraints. This work — Phase 2 — will widen the scope and applicability of the earlier Phase 1 research. The key question addressed in Phase 1 was how to improve the
access to and quality of public transport for the urban poor. The work focused on formal and informal relationships (contracts), and roles and responsibilities in the context of a single case, Karachi. Phase 1 helped to explore issues of access and quality of public transport using participatory research methodology and approach (see Sohail, M. (ed.) 2000).

Phase 2 of the project will be closely co-ordinated and associated with another KaR project which is led by TRL (Activity patterns, transport, and policies for the urban poor) and which looks at linkages between transport and other social sector interventions such as health in Sri Lanka, Zimbabwe, and Ghana.

This second phase will also explore the following in cities in Asia and Africa:

a) How can access to and quality of urban public transport services provision be improved for the urban poor?
b) How can existing partnerships be strengthened and new ones created in respect of public transport provision?
c) How can the project bring on board the views of users, operators, and regulators and how should priorities be established at policy and operational levels?
d) How should the project understand, quantify, and prioritize the urban poor’s need for safe, affordable, effective, and efficient public transport services to ensure reasonable access to work, education, health, and leisure when other factors such as water, food, housing, and health are all equally or more important factors of SL? In other words, how can the inter-linkages of urban public transport partnerships improve access and quality livelihoods assets of the poor?
e) How can the influence of the partnership on the structure and processes that mitigate the risks of the urban poor within the vulnerability context be traced?

**Setting transport within the Sustainable Livelihoods Approach**

The Sustainable Livelihoods Approach (SLA) is currently being used by DFID as a framework to understand the dimensions of poverty and potential interventions for poverty reduction. (In this context ‘livelihood’ refers to the command an individual, family, or other social group has over an income or resources that can be used to satisfy its needs. These resources may include information, cultural knowledge, social networks, and legal rights as well as tools and other physical resources. Sustainability is considered to have environmental, social, economic, and institutional aspects.)

Securing sustainable livelihoods depends on a number of cross-sectoral interventions, such as employment generation, health care and education facilities, access to adequate services, and reducing vulnerability with respect to accommodation/land tenure, etc. These components of a sustainable livelihood depend on the possession of various livelihood assets (human, social, natural, physical, and financial capital) to achieve livelihood strategies which are determined by transforming structures (government/private sector/service provider/NGOs) and processes (law, policies, culture, institutions). These strategies are used, depending on the stock of assets, to achieve livelihood outcomes (such as increased well being and reduced vulnerability) (Ashley and Carney, 1999).
<table>
<thead>
<tr>
<th>Asset</th>
<th>Influence on transport sector</th>
<th>Influenced by transport sector</th>
</tr>
</thead>
<tbody>
<tr>
<td>Human</td>
<td>-</td>
<td>Access to education, health services, etc. Extent of stress, injury, mortality from travelling.</td>
</tr>
<tr>
<td>Financial</td>
<td>Size of informal transport sector</td>
<td>Access to work, employment and income generation opportunities</td>
</tr>
<tr>
<td>Social</td>
<td>Capacities and performance of informal transport sector</td>
<td>Capacity of city-based networks of users and/or informal providers to negotiate with state authorities</td>
</tr>
<tr>
<td>Natural</td>
<td>-</td>
<td>Quality of local neighbourhood environment — extent of noise and aid pollution</td>
</tr>
<tr>
<td>Physical</td>
<td>Road/rail network critical to ease with which informal and formal transport systems operate; also determines extent of facilities for pedestrians</td>
<td>Quality of road network partly influenced by bus use</td>
</tr>
</tbody>
</table>

This research project uses the sustainable livelihoods framework and the approach to the research has been informed by that framework. Within the framework, transport can be best viewed as an asset. Access to transport influences the package of assets that is available to communities and the individuals within them. At the same time, access to transport is in turn influenced by those assets. Hence the issues discussed in the interviews will primarily focus on the assets identified as contributing to and affected by transport services. Part of the preparation for the study will be testing the assumptions in Table 1. Individual interviews, focus groups and key informants will examine particular vulnerabilities and opportunities.

We would include (as was the case in Karachi) a discussion of restrictions based on religious and cultural factors and issues to do with the harassment of women and children.

As highlighted in Table 1, transport affects the livelihood opportunities of the poor in multiple ways. What the table does not indicate is the relative importance of these different areas. The Karachi study, alongside other research studies, suggests that the major influences are:
Positive influences:

- **Access to work, income generation, and employment opportunities** Urban households may participate in a multitude of activities including small-scale trading and service provision, work in factories, casual labour, and domestic work. In the context of structural adjustment and liberalization policies there has been a reduction in the proportion of the population employed in waged jobs in the formal sector. The subsequent proliferation of informal sector work in trade and services has meant a restructuring of livelihoods and a diversification to reduce the risk of loss of income from one source. In addition there has been an increasing labour force participation of women and children. The mobility of the urban poor can be seen to play a role in the diversification of livelihood; the access to production inputs, building up stores of saleable assets, social support networks related to work, market information, credit, and training and employment.

- **Access to education and health services** Well planned and low-cost transport services can greatly reduce the difficulties of getting to education and health services. This is of direct assistance to households in securing and improving their livelihoods. Reductions in social service expenditures may have increased the distances that residents have to travel. Many low-income settlements, especially those on the periphery of cities, are very poorly served.

Negative influences

- **Cost of transport services** The cost of transport is a major burden and often takes up a substantive proportion of household budgets. The study in Karachi reported that 51 per cent of households were spending 10 per cent or more of their income on transport. These figures show the difficulties faced by low-income households seeking to improve their livelihoods. In addition to these direct costs, there are the indirect costs incurred through transport use, particularly the time taken.

- **Reduction in the quality of the local environment** In some low-income settlements, transport services vastly reduce the quality of the local environment with noise and air pollution causing immediate ill-health and chronic illness.

**Key public transport issues affecting the urban poor**

The purpose of the report is to provide an overview of operational experience and practice within the transport sector. The fundamental goal of any transportation system is to take people and goods to where they need to go, safely, quickly, and affordably. A transport system consists of infrastructure and modes and improving the efficiency of the system depends on both. Transport infrastructure includes paths, roads, bridges, stations, highways, waterways, ports, aviation, and railways. Modes refer to trucks, pick-ups, buses, cars, minibuses, motorbikes, and bicycles, etc. Public transport is characterized by a variety of vehicles and services offered. Most, however, are road-based and provide either a bus-like service with a fixed fare and route or a taxi-like service where the fare and route is bargained.
Traditionally, investment in transport has been promoted to increase economic efficiency and economic growth. Transport can be seen as central to economic growth, increasing the physical access of urban people to resources (supplies, services, facilities, and income-generating opportunities) and markets, and affecting food security, the marketing of goods, and the affordability of health and education. An effective transport system can expand trade and with economies of scale, lower costs and prices, and increase government capacity for income redistribution. It is assumed to benefit the poor through the ‘trickle down’ effect in the economy, i.e. by lowering costs and increasing opportunities. However, these transport policies (and their narrow focus on macroeconomic growth as a means of alleviating poverty) may have harmed the poor through the displacement of Non-Motorized Vehicles (NMV), the increase in pedestrian fatalities, the relocation of labour-intensive manufacturing, and the increase in air pollution. Few urban transport policies and interventions focused on the poor, and thus the effects and impacts of transport interventions on the poor have been broadly unaccounted for.

The importance of a systematic approach to poverty issues has been recognized and the design of these projects has been changed to centre around poverty reduction. The rationale of investing in transport for the urban poor is to alleviate poverty and raise the living standards of these communities. Within the Sustainable Livelihoods Approach (SLA) transport infrastructure can be termed Physical Capital. Mobility depends on the availability, affordability, and efficiency of the system and the extent to which an individual is able to make use of these options to move themselves and their goods around. Attempts to improve the access and quality of public transport to the urban poor usually target those problems experienced and identified by the poor and may include:

- increasing transport modes;
- upgrading infrastructure like street lighting and pavements;
- using employment-intensive community-based methods;
- reducing accidents; and
- understanding the consequences both for the people concerned and for broader processes for urban change.

Employment and hence income generation is the prime factor in increasing the quality of an individual’s life. Spatial location and the transport system influence the opportunities to find employment and maximize sales for those employed in trading and hawking. Donors and governments use labour-intensive transport construction and maintenance methods to generate employment and supplementary income. Project components that contribute to poverty reduction do so by improving access to jobs and public transport, reducing travel time and costs, and improving the safety and comfort of public transport, thereby reducing accidents and providing pedestrian facilities and non-motorized transport services such as rickshaws and bicycles, etc. Transport is often a complementary input for effectively delivering poverty-targeted interventions such as health care, and for illustrating the need for cross-sectoral interventions. Sustainability of these efforts could be guaranteed by taking a cross-sectoral and holistic approach to cost-recovery policies, capacity building within the sector, and improved financial management and control.
It should be remembered that improving a transport system is not a substitute for other investments in poor areas, such as adequate health services, water and sanitation, etc. A few important distinctions need to be addressed, such as the differences between:

- accessibility or mobility. Accessibility refers to the ease or potential with which people can travel and move goods to destinations and opportunities. Mobility suggests the ability to move people and goods around. Accessibility takes account of location/spatial differentiation and mobility determinants.
- urban poor within or outside settlements
- formal sector and informal sector workers
- employment and employment-seeking activities
- productive and reproductive work in the maintenance of livelihoods
- concentration of poor in settlements and their diffused presence throughout cities
- public sector transport and the informal privatization of the transport
- direct employment of urban poor in the transport systems and the indirect maintenance of livelihood through increasing access to the transport system
- men and women
- motorized and non-motorized transport
- between and within the “urban poor.” The urban poor is a highly differentiated group. Will improvements to public transport merely increase the difference between the poor and the not-so-poor? How poverty is conceptualized will determine the proposed transport solutions.
- policies that are anti-poverty, i.e. designed to raise the incomes or consumption, or anti-vulnerability, which reduces the chances of a risk having a serious effect.

The urban poor make up the majority of inhabitants of cities and tend to live on the peripheries of cities in overcrowded, unhealthy, and marginal environments. Although these informal settlements may also be becoming increasingly widespread, the poor may also be dispersed throughout the cities, and these pockets of poverty may be missed by a narrow focus on settlements. Amongst these households there are a growing number of female-headed households and children involved in informal/reproductive work. The informal sector uses transport in trading, hawking, and employment seeking; these activities do not necessarily follow ‘commuter peaks’ and this requires a more flexible transport service. The poor are not car users and as they rarely make a high number of daily trips they are typically isolated from plans and policies regarding transport. The access and mobility of the poor is constrained by:

- city planning;
- socio-economic characteristics;
- transport facilities; and
- services available.

It is important to establish whether the low number of journeys made by the poor is because they are unable to support additional trips (lack of time/money to use transport) or because their lifestyles necessitate only a few trips, i.e. well-planned settlements with markets, schools, health clinics, and employment opportunities close to home.
The majority of the trips made by the urban poor tend to use some form of public transport or non-motorized transport (i.e. cycling or walking). Journey distance and income level affect the modal choice of transport, for example short trips may be made on foot or by bicycle (if the initial investment in a bicycle can be made), and longer trips use the bus. The poor are dependent on public transport for their access and mobility, amenities, and livelihoods; they also bear the burden of its inadequacies. Transport is both a cause and an effect of poverty. Low-income families are obliged to spend proportionately more of their disposable income on transport in order to make essential journeys.

High transport costs, as high as 30 per cent of monthly income, lead to reduced access to other basic needs and reduce the returns of economic activity. Thus, the level and quality of service is often lower for those in low-income areas, where commuters are heavily dependent on public transport for their mobility needs. People have little option but to suffer a deteriorating service. Low levels of capital investment in urban transport systems result in the reduced capacity of vehicles and roads. The past failure of city authorities to deal with the urban poor can be illustrated by slum clearances; the construction of high-rise apartment blocks and marketed schemes. The current problems associated with transport are a result of spatial inequalities in the provision of public transport (between middle and lower class areas) and the failure to provide services in an integrated way with planned/unplanned urban expansion. The challenges of increasing urbanization demand an increase in the provision of urban infrastructure and services, employment generation, investments in health and education, provision of safety nets for the poor, and the capacity and finances of local government. The level of public transport services provided for low-income communities may be subject to:

- unacceptable travel conditions;
- fewer bus routes;
- fewer buses per capita;
- longer bus journey times;
- greater bus waiting times; and
- high expenditure on travel.

The result reinforces patterns of unequal development in cities and the geographic, social, and economic isolation and thus the social exclusion of its poorest residents. The re-orientation of investment, identification, and planning to people rather than technologies, suggests that accessibility and spatial variations are of key importance to:

- improve low-income settlements;
- improve transport infrastructure; and
- improve the mobility of the urban poor.

Organizational designs to cope with the transport situation may range from simple commercialization to full privatization. Local government often have insufficient financial resources, management capacity, or accountability mechanisms. Private investment might be feasible where low capital investment and low operating costs are called for. There has also been a move away from public ownership to franchising arrangements whereby local government may authorize a private firm to manage and
operate a city’s public transport system. Such partnerships between the public and private sector are increasingly being pursued to meet the objectives of improving access and quality for the urban poor in towns and cities throughout the world. The private sector, formal and informal, has much to offer in terms of finances, project design and implementation. In some circumstances, they can help to provide transport services more efficiently than public utilities. Nevertheless the Karachi study showed some of the problems that arise from private provision when the public regulators are ineffectual. The public sector may continue to make significant amounts of public money available for transport infrastructure as a reflection of wider economic benefits.

Other interventions that may improve the access to and quality of public transport may be:

- **subsidies.**
- **restructuring, i.e. deregulation;**
- **transport infrastructure investment;** and
- **new town planning.**

More information is needed to inform policy about the impact of these interventions and urban planning on the poor, within efforts to improve the quality of and access to public transport. There is a need to analyse:

1. transport patterns: (trip rates and journey purposes, distances, role of public transport for social and recreational purposes, and the correlation between trip rates, transport expenditures, and household income)
2. travel needs and problems: (service availability, affordability, quality of services)
3. livelihood opportunities: (how do the poor respond to the changing conditions of livelihood and how does the transport market adjust?)
4. who are the urban poor?: (the heterogeneity of low-income groups, participatory poverty analysis, poverty impact indicators to measure poverty reduction, travel time, and costs. Are only blue-collar workers targeted, or those who are underrepresented in employment/ unemployment statistics?)
5. level of services in communities: (do other interventions, i.e. health and schools precipitate the generation of new travel routes?)
6. activities of the urban poor: (livelihood activities, reproductive, personal investment activities, i.e. health care/education, investment in social networks, and leisure activities)

If development is about social, economic, political, and environmental changes the interrelation between these processes and spatial mobility has to be a critical area for better understanding and for more useful interventions. Public transport investments have social, financial, economic, and environmental dimensions. A transport system which aimed to improve the access to and quality of public transport for the urban poor would be based on i) **social equality;** ii) **ecological imperatives;** iii) **health and safety considerations;** iv) **public participation** in its design; and the intent to v) **improve the quality of life** of its users. For these goals to be sustainable they must meet the needs of the present without compromising the ability of future generations to meet their own needs.
Key considerations

There are various issues which will be further explored in Phase 2, such as pedestrian access to services, fares, reliability of services, how new routes/services are planned, and how the local community views are included in defining the transport services.

There are also some generic and thematic issues, which have been found to be important in the creation of a pro-poor public transport system. Table 1 provides a listing of the issues and how they will be explored in the context of this project. A description of the key issues is provided in Appendix 2.

<table>
<thead>
<tr>
<th>Key issues</th>
<th>Nature of information</th>
<th>Focus of research</th>
</tr>
</thead>
<tbody>
<tr>
<td>Informal settlements</td>
<td>Primary and secondary</td>
<td>Overview and households</td>
</tr>
<tr>
<td>Gender</td>
<td>Primary</td>
<td>Households</td>
</tr>
<tr>
<td>Special needs</td>
<td>Primary</td>
<td>Case studies</td>
</tr>
<tr>
<td>Road accidents</td>
<td>Primary and secondary</td>
<td>Overview and specific to case studies</td>
</tr>
<tr>
<td>Environmental aspects</td>
<td>Secondary</td>
<td>Overview</td>
</tr>
<tr>
<td>Motorization</td>
<td>Primary and secondary</td>
<td>Overview and specific to Public transport</td>
</tr>
<tr>
<td>Non-Motorized vehicles</td>
<td>Primary and secondary</td>
<td>Overview and households</td>
</tr>
<tr>
<td>Pedestrians</td>
<td>Primary</td>
<td>Households</td>
</tr>
<tr>
<td>Institutional reform</td>
<td>Primary and secondary</td>
<td>Overview and specific examples</td>
</tr>
<tr>
<td>Income generation and enterprise development</td>
<td>Primary and secondary</td>
<td></td>
</tr>
<tr>
<td>Land-use control</td>
<td>Secondary</td>
<td>Overview</td>
</tr>
<tr>
<td>Bus services</td>
<td>Primary and secondary</td>
<td>Overview, operators, regulators and households</td>
</tr>
<tr>
<td>Consensus building mechanisms</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Research design

Background
The predominant ‘how and why’ nature of this research ensures that a case study method is adopted. It is understood at the outset that case studies will not generate statistical generalizations but will contribute in the logical replication with richer data to understand the situation (for more discussion see, for example, Hakim and Yin).

Study location
The study locations, as included in the KaR contract, are Faisalabad, Pakistan; Colombo, Sri-Lanka; and Dar-es- Salam, Tanzania. They provide a variability of situation, which is a more rigorous approach to test the viability or extension of the findings observed in Karachi in the first phase. Different levels of private operators, different levels of use of motorized transport, and different levels of cultural contexts will make Phase 2 richer. All the locations represent urban areas with a significant number of poor people.

Research methodology
The research methodology will include case studies using interviews and a series of focus group discussions at settlement and city level. The project will contribute to an understanding of some of the issues of vulnerability and of the roles of key public and private organizations. The project will also address the key issue of the contribution of partnerships in public transport to sustainable livelihoods for the urban poor.

The research will use the methodology developed and tested in Phase 1. Necessary adjustments will be made according to the specific requirements of the study locations. Both quantitative and qualitative approaches will be used to extract perspectives from users, operators, and regulators. This methodology (developed for the study in Karachi) involved the researchers in:

- starting with a historical review which included existing documentation and some interviews with key informants.
- moving onto consideration of the population of settlements in the city. how many should be surveyed and where they should be located, Existing information was reviewed in order to inform the interview schedule.
- piloting the schedule with some individuals.
- conducting interviews at the neighbourhood level with users of transport services.
- building up from the key informants, city forums were conducted first with the individual interest groups and then together. These forums provided appropriate venue for the exploration of recommendations.

The techniques will include content analysis, literature review, historical analysis, case studies, focus group discussions, forums, and workshops.

- Historical analysis of documents with interview with relevant people will help us to understand the context in which transport activities are taking place. They will be of
primary value in assisting in local discussions and researcher analysis of what might be an appropriate policy direction. In some cases, focus groups may also consider historical issues if the participants identify events of particular significance.

- Literature reviews will complement the historical analysis and provide additional information on current transport issues, perspectives and experiences in the city. The main purposes of the literature review are to ensure that the researchers are fully aware of the background to transport issues and to prevent duplication of work.
- Individual interviews will provide essential data on experiences and perspectives on transport services. Tables will be prepared to summarise this data.
- Focus group discussions will provide additional information on experiences but they will have been selected because initial solutions can most usefully be explored in groups with common purpose. Hence, as was the case in Karachi, focus groups will be held with users, providers and regulators.
- Comparative case studies will highlight common experiences and needs for an international development assistance audience. Consideration of a range of experiences may also be of use for transport planners working in a specific context. In addition, comparative case studies will help researchers and those directly involved in the transport sector to determine what is special about their situation and increase their understanding of the range of measures that might be used to secure improvements.
- Forums/workshops provide a critical component in bringing together experiences (with all the difficulties that are identified) and potential solutions in a public forum. The intention of these forums is both to enable experiences and proposals to be rigorously reviewed and to make the knowledge 'useable'. The review of experiences and proposals is important both for verification of the information that has been gathered and any interpretation that the researchers have placed on it. The public exploration of these experiences and proposals is likely to produce interesting insights that deepen the researchers' understanding. At the same time, the bringing together of all relevant parties to consider improvements will catalyse an ongoing debate in the cities.
- Content analysis by the researchers is necessary at every stage to add value to the information being gathered and to assist with mutual understanding between all the groups involved.
- Building up from these different sources of information, we will prepare reports for each city case study and conduct comparative analyses during the later stages of this project once individual city data is available.

Please refer to Appendix 4 where these methodological tools are considered in greater depth.

**Research partners**

The methodology places some stress on the involvement of key parties in discussions around recommendations. We will seek to develop the capacity of the local groups through the research programme to achieve a track record in this area that is as strong as the Urban Resource Centre in Karachi.

The local research partners in collaboration with the UK-based team will conduct the fieldwork. The local research partners include academics, professionals, and NGOs. Sevanathe (Urban Resources Centre) from Colombo, a town planner with team from
Faisalabad, and an educational institute (University Colleges for Land and Architecture) from Dar-Es-Salam will be the key local partners in the new study locations. Expertise will be drawn from the Urban Resources Centre of Karachi. There is a network of people around each field team to provide support. The U.K. team has the capacity, experience and contacts to respond to the demands coming from the local teams. The necessary support and information is being provided to local teams. We envisage the capacity building to be demand led and not supply led, however the project manager will review needs and provide inputs as required. In addition, through the local partners, a network of key stakeholders will be involved in the research. A meeting in Karachi of the all the local partners is being considered to improve the horizontal linkages among the local researchers.

The proposed work plan
The focus of the research in Phase 1 was Karachi, Pakistan, which is a city of between 10 and 13 million in the South of Pakistan. It is a city with a diversity of economic activities and a wide mix of different social groups including a substantive migrant community, drawn primarily from India and other areas of Pakistan. Phase 1 has been completed and a review, situation analysis, and policy conclusion can be found in the book Urban public transport and sustainable livelihoods for the poor: A case study: Karachi, Pakistan (Sohail, 2000).

Follow up from Phase 1
The research focused on the provision of transport services for the commuters in Karachi. Given that the public sector has more or less withdrawn from transport provision their role has been taken over by the private sector. Existing transport services are inadequate and are estimated to impact on the livelihood opportunities of 30 - 40% of the lower income segment of the city. In addition each day there are 2 deaths and scores of injuries associated with public transport. Most of the work-force in Karachi live in low-income settlements, katchi abadis, which are located at a great distance from major job markets (i.e. ports and industrial activity). The impacts of transport on livelihoods were investigated mainly by considering access and quality, which were identified as basic criteria for evaluating the role of a transport system in development. These aspects (including monthly expenditure on transport and the time spent travelling) were determined from user interviews complemented by a detailed analysis of the conditions under which industry has evolved and operates. The underlying premise of the research was that the existence of public transport and activity is a direct determinant of the availability of sustainable livelihoods.

The transport set-up in Karachi has developed in a fragmented way, with no comprehensive planning and coordination between modes and routes. The review made a number of recommendations such as:

- the implementation of and legal status for Karachi Mass Transit Authority,
- the continuous process of data collection and monitoring with all stakeholders,
- Localized planning and policy making, segregation of local and through road traffic and construction of a bypass.
These interventions would be complemented by the rationalization of routes and interchanges and the revival of Karachi Circular Railway together with shuttle services and bicycles. A number of self-help solutions were also identified such as the building, repair, maintenance, cleaning of bus stops and vehicles, the recovery of informal cash flows and more constructive wages.

**Phase 2**

This phase will see the work extended to other cities (Faisalabad, Pakistan, Colombo, Sri Lanka; and Dar Es Salaam, Tanzania). However, it should be emphasized that the extension of the core methodology is not simply replication of work in more cases.

It is a very challenging assignment and the local environment/sector differs between countries, although Colombo and Karachi may have some similarities because they are close geographically. The differences may include availability of different modes of urban transport services and differences in the proportion of people that have access to public transport services. In Dar es Salaam, which really only has minibuses and taxis, the poorest do make use of minibuses but a high proportion of them will only be able to afford to walk for most of their travel needs. Trying to understand the reasons why and how they can gain access to public transport services and how the quality of public transport can be improved through partnerships remains a challenge. The emphasis on access or quality may differ from case to case. In terms of pedestrians accessing public transport, both waiting times and the existence of affordable routes may be significant. In some cases there may be a need to improve pedestrian facilities such as pavements, as well as passenger access to public transport services. Generally most passengers have to walk either to or from bus stops or terminals and this should be included in ‘access’ to public transport vehicles.

**Mode of transport to be focused**

The project will focus on the dominant modes of transport in each of the cities: government-owned buses, private buses, vans, three-wheelers, and motorcycles.

- **Motorized:**
  - trains, buses, minibuses, coaches, lorries, three-wheelers, taxis, motorcycles.
- **Non-motorized:**
  - bicycles and carts, and pedestrian travel related to public transport, if appropriate.

**Major components of the study**

A country paper will be developed by the project team in the respective countries which may include the following sections:

1. Analysis of policies and strategies that govern public transportation in the city, including a historical perspective.
2. Situational analysis of current issues. Identification of the key issues and formal and informal partnerships to improve the access to and quality of the public transport.
3. Issues and accommodation for improved transportation system in the future.
Key perspectives
The key perspectives will be extracted in the context of the sustainable livelihood approach from:

1. users’ perspectives, particularly low-income households;
2. providers and operators of the service such as bus companies, drivers associations, owners’ associations, etc.; and
3. regulatory agencies (primarily the Transport Ministry and other government agencies and the private bus companies). Perspectives of the Municipal Traffic Department and City Traffic Police who regulate the traffic, licensing authorities.

Major activities to be carried out
The following activities will be undertaken based on Phase 1 of the project.

1. Selection of sample communities using criteria developed in Phase 1 of the project.
2. Development of route maps, if not already available, and identification of the key corridors where the poor travel for their livelihoods.
3. Profiling of users, private bus owners’ associations, regulators, and transport workers.
4. Collection of secondary data and information, particularly that related to transport policies, strategies, and regulatory measures.
5. Adoption of the research methodology developed in Phase 1 of the project to the new study locations.
6. Use of city forums / focus group discussions with users, providers/operators, and regulators.
7. Development of interview formats for focus group meetings and for interviews of key actors from the users, operators, and the regulators in the light the checklist, which will be developed in the light of the reviews, meetings, and Phase 1. Interview of key actors such as:

- community leaders of low-income settlements
- leaders of passenger societies
- advisory members of the traffic & transport committee of the municipality
- transport commission officials
- members of the Organization of the Professional Association of Traffic Police Division
- members of municipal council
- senior citizen groups

It is anticipated that nearly 300 interviews will be conducted in the case study locations.

8. Compilation of data and data analysis.
9. Preparation of the draft research report.
10. Addition of focus group on income and employment issues, and one on local environmental hazards.
11. Conducting group-based discussions with users, regulators, and operators. Identify common issues that appear to be (at least in part) capable of some improvement. Convening further meetings with the relevant parties to address these areas using the research findings as a common starting point. During the course of these meetings, developing and refining the report.

12. At the end of this process having a national meeting that is open to all for information dissemination purposes?

13. Modification of the research report incorporating the workshop findings.


Some specific consideration given in the research design is shown in Appendix 4.

**Issues to be discussed during the interviews**
The following is only an indication; the checklists will be further refined and tested.

a. Users from selected settlements
   - personal data
   - livelihood assets
   - travelling time
   - environment – waiting places, inside vehicles, user’s perspective
   - health and safety
   - modes and options
   - finances
   - corruption aspects
   - suggestions/ideas

b. Operators
   - personal data
   - finances
   - major operational problems/issues
   - O&M
   - corruption aspects
   - suggestion/ideas

c. Relationship between transport and livelihood patterns of the urban poor

d. Citizens' initiatives to improve their access to transport

For an overall work plan, please see Appendix 3.

**Capacity building through research**
In addition to the above there is a need to strengthen the ability of our local institutions/partners to undertake similar work/research in future. This is a very important implicit objective of the project. The local researchers will be provided with opportunities to develop their capacities by interaction with each country team. A meeting is being planned either in the UK or in Karachi to bring together the researchers at some stage during the project. Once the details of this additional activity are confirmed the project manager will communicate any financial implications to DFID. Through the local research teams, a wider network of key decision-makers and sector specialists in each
study location will be involved in the research. This will improve not only the research methodology and approach but also the dissemination of the final output and the final developments of the sector.

**Linkages with the TRL and other networks**

Dr M. Sohail participates in the TRL led research project ‘Activity pattern, transport and policies for the urban poor’ and Dr D. Mauder of TRL is contributing to this project. There have been several meetings in which partners from both projects contributed and discussed areas of mutual collaboration. The key areas identified are the fieldwork and dissemination. Both projects are keeping each other fully informed about their review and methodological developments. The fieldwork and dissemination process will build on each other’s capacities. This interim report has been prepared in close consultation with the other project. This project will in turn work very closely in the development of TRL’s project interim report.

Furthermore, Colombo is the common study location for both projects, which will improve synergies when fieldwork is planned and implemented, and cross-fertilize ideas in terms of data collection and analysis. The baseline information can be shared and the channels for information for dissemination can include some common organizations.

This report will also feed into the forthcoming Inception Project workshop of the TRL led project.

**Informing mutli-lateral initiatives**

The project team intends to keep a close watch on the processes of development strategies in agencies such as the World Bank. The project will keep such agencies informed about the progress of this research project.

**Issues of social exclusions and human rights**

During our research (see the section on methodology) we will seek to identify incidences of social exclusion and human rights abuse in the context of urban public transport. The first step that we follow is to identify social differentiation patterns in the case study context through existing literature and then go into further detail to explore their dimensions. Social characteristics and differences within the city are likely to be important and hence may be illuminating factors for the experiences that are to be explored. Our purpose in using local research collaborators is to ensure that we are working with researchers who already understand such differences in the context of their own city. Through the participatory and qualitative nature of research design the issues of social exclusions, if existing, will not only be identified but the following information will also be provided.

- Nature of social exclusion and its dimensions such as systematic or non-systematic, gender, age, etc.
- Degree of acceptability-how society reacts to it
- Ways forward- any emerging visions
The individual interviews will seek to ensure that the views of all groups are represented in the research although, due to the nature of social exclusion, the more socially excluded groups are unlikely to be fully represented in city based discussions about emerging improvements. We hope to extract similar information in relation to human rights but in the context urban public transport. It must be emphasized that such issues are very complex and this project will only provide initial contributions by identifying and clarifying such issues in the context of urban transport.

**Target audiences, information dissemination channels and proposed dissemination strategies,**

The guidelines will be produced for the benefit of a wide readership, including:

- readers with a general professional interest in the transport, urban transport, urban development and urban governance;
- policy makers who are developing strategies for urban transport at international (multilateral and bilateral, national and local government levels.
- Members of private sector firms, local government officials, NGOs and CBOs who are involved with the development and implementation of urban public transport.

Our final outputs will include documents or sections, which are targeted quite specifically at different audiences. The guidelines will provide simple and practical guidance to the target audience on how to address the issues of access to and quality of public transport for the urban poor. The guidance will be provided at policy and operational levels based on the findings of the research. A significant part of the output will also provide guidance on how to do such research.

The research will be conducted in close connection with the community based is designed to include a network of community based organization through our local partners. The information will be channelled back into the community groups. The research will be sensitive to identify new interest groups, if any, such as consumers groups or women groups. The research will not only include such groups in the research but the outputs will help them in their empowerment and advocacy.

**Proposed dissemination strategies**

Outputs will be published in the UK and South Asia with primary dissemination via local partner networks. We will manage an email conference on the project outputs which will also be available on the WEDC website. Subsequently secondary dissemination will include translation by local publishers. Workshops at settlement- and city-level will be held, and international media attention will also be sought through such organizations as the Panos Institute and the BBC World Service.

Dissemination of the project outputs will be targeted at policymakers, public officials, the private sector operators and local NGOs and CBOs. Electronic means of dissemination will be used in addition to the more conventional approaches. Project outputs will be displayed on WEDC’s website home page. An executive summary of the project output will be published in local languages. Workshops at community, city and international levels will be organized. After production of the final output, a specified period of time will be dedicated to monitor response to the dissemination. A journal article
will be submitted by the end of the project and a paper presented at a conference such as TRB Codatu. Close links will be maintained with the TRL by sharing outputs and networks and possibly by developing a shared dissemination strategy.
Bibliography


### Appendix 1: Research proposal log frame

**w) The Logical Framework**

Applicants are required to complete a 'Logical Framework' in the format shown to demonstrate the project design and the manner of its implementation. Guidelines on the completion of a 'Logical framework' are provided in Part B. We recommend that participants pay particular attention to producing a good logical framework. It is the key document in any appraisal of your project proposal.

The Logical framework should be as concise as possible, preferably not more than two pages.

**Project Title:** Partnerships to improve access & quality of public transport

<table>
<thead>
<tr>
<th>Narrative summary</th>
<th>Measurable indicators</th>
<th>Means of verification</th>
<th>Important assumptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Goal: As defined in 1.c) T3 Transport for urban and rural poor.</td>
<td>(5 lines) (F1):</td>
<td>(5 lines) (F1):</td>
<td>No input required.</td>
</tr>
<tr>
<td>Purpose: As defined in 1.b) (10 lines) To improve sustainable livelihoods of the poor through the improved access and quality of urban public transport by developing a guidelines for use by policy makers and operators in urban transport.</td>
<td>(10 lines)</td>
<td>(10 lines)</td>
<td>(Purpose to goal) (F1):</td>
</tr>
<tr>
<td>Outputs: 1 Short country papers containing review, situation analysis and policy conclusions related to the issues of access and quality of public transport</td>
<td>1. 200 English copies and 300 local language copies disseminated to the project partners; output available and advertised on website by September 2001. 2. 200 copies of the draft guidelines produced and disseminated by November 2001.</td>
<td>1. Availability of project documentation by EOP 2-3 Requests for copies of draft toolkit and report disseminated through IIED, URC and WEDC Peer review during electronic conference and response to evaluation forms sent out. Peer review during workshop and evaluation of the participants.</td>
<td>Stakeholders are willing and able to participate in the research. Solutions can be identified and implemented. There is a wider interest in understanding links b/w sustainable livelihoods and public transport.</td>
</tr>
<tr>
<td>2. Draft guidelines containing lesson learned and findings to improve access and quality of public transport for the urban poor.</td>
<td>3. Electronic conference on draft guidelines</td>
<td>4. Workshop held by March 2002. 5-200 copies of summary disseminated 6. 400 copies of guidelines disseminated by the EOP. 7. Article submitted for publication by EOP.</td>
<td>(Output to purpose) 1-5. Effective local co-operation and inputs from the researchers are available. Participation in workshop and electronic conference by relevant target group, and especially those concerned with policy making. Other groups involved in dissemination (and particularly the local media) are interested in the findings of the research.</td>
</tr>
<tr>
<td>3. Electronic conference on draft guidelines</td>
<td>4 International dissemination workshop.</td>
<td>5. A summary for publication in the local popular press and direct distribution to community organization. 6. Guidelines on issues of access and quality of public transport for the urban poor (final version)</td>
<td>6. Key stakeholder groups carry on with participation at this stage and take seriously the findings of the research.</td>
</tr>
<tr>
<td>4 International dissemination workshop.</td>
<td>5 Journal article based on this research.</td>
<td></td>
<td>(Activity to output)</td>
</tr>
<tr>
<td>Narrative summary</td>
<td>Measurable indicators</td>
<td>Means of verification</td>
<td>Important assumptions</td>
</tr>
<tr>
<td>-------------------</td>
<td>----------------------</td>
<td>----------------------</td>
<td>----------------------</td>
</tr>
</tbody>
</table>
| 1. Adjustments to the phase 1 methodology for additional cities.  
1.1 Joint collaboration meeting with TRL (T15)  
2. Selection of cases.  
3. Fieldwork at settlement and city level Joint preparation of fieldwork with TRL(T15).  
4. Analysis and documentation of findings.  
5. City and community level workshops  
6. International workshop  
7. Mount electronic conference  
8. Prepare output suitable for electronic format (websites, email).  
9. Dissemination through partner networks of WEDC, IIED, TRL and URC.  
10. Monitoring of dissemination  
Inputs (Detailed work plan and bar chart in Annex 1.1) | Measurable indicators  
Total £:000 (DFID)  
Staff cost*: 30  
Other expenses- 144  
(29 to local partners and 16 for dissemination)  
Total 174. | Means of verification  
Progress report to required | Important assumptions  
1. Input by principal investigators and local resources centre made successfully.  
2. Inputs by research collaborator and field work take place as planned.  
3. Input from stakeholders in commenting on documents that are prepared.  
4. All stakeholders have a capacity to adequately represent their perspectives during the research. |
Appendix 2: Key issues

1. Informal settlements

Informal settlements are growing in number and density and thus are often overcrowded and congested. Population growth affects transport systems as more people generate a greater demand and more trips. A greater density means longer travel times if people cannot walk or use NMVs, and more complex journeys if operators focus on general patterns of movement along major corridors. Additionally, unplanned settlements may be difficult to access because of their situation, i.e. hill sides or marginal land. Accessibility is further complicated by the lack of transport infrastructure and erosion or flooding in the rainy season. The internal transport infrastructure of these settlements can be improved as part of labour-intensive works and thus mechanisms for service distribution works can be bettered. Attempts to improve:

a) main access roads,
b) minor roads, and
c) footpaths, in addition to
d) waste collection systems and
e) stormwater drainage systems

would also contribute to poverty alleviation. Labour-intensive methods (with wages or food for work programmes), community participation, community contracting, and employment opportunities for women could be adopted to improve the access to and quality of public transport in informal settlements. The use of light equipment and tools, appropriate standards of construction, and high levels of management must also complement the use of local labour. Within settlements there would be light vehicular traffic; thus the construction of narrow tracks for use by NMVs would reduce investment costs. The community could then easily manage the maintenance of low-volume roads, bicycle paths, and footpaths. Community contracts would involve a partnership between the client (within city councils), contractors (from within the community), and consultants (who design the system and monitor works). The contract may be

- labour only;
- labour and materials; or
- full contracts.

The contracts would require technical assistance to provide technical and managerial know how. Community contractors may then find long-term employment opportunities as a result of this contract in terms of training, capacity building, self esteem, and empowerment and investments of income in local economies. Use can be made of rural labour-based works experience, with respect to urban application. However, community participation, as a cost-reduction strategy, shifts the burden of service provision from government to the urban poor and necessitates time and community organization, and the rigid structure of the authorities needs to be altered to facilitate community involvement in provision. A consequence of improvements to informal settlements may be to force up house rents due to higher land values.
2. **Gender**

Women’s involvement in transport activities is essential to the productive and reproductive well-being of households. The uniqueness of women-specific transport problems deserves special attention and planning on behalf of planners and policymakers. The mobility needs of women are grounded in the gender division of labour; men are characterized as the ‘breadwinner’ and women are typically homemakers as well as income-earners. Technology has also been gendered: men use public transport, cars, and motorbikes/bicycles to a greater extent than women. Women may be seen as substitutes for transport technologies: walking and carrying loads on their heads or backs, in addition to their children. The costs of this can be seen in terms of time, energy, and health risks, as over long periods of time head-loading may lead to deformities, headaches, exhaustion, skeletal damage, etc..

Efforts need to be made to alter societal attitudes and gender discrimination in public transportation policies. A gender analysis of household income distribution would suggest that efforts concentrated on reducing the cost of transport for male ‘breadwinners’ do not necessarily represent a saving to the household budget (or that savings will be distributed to improve the well-being of all family members). Transport can play a role in lessening and simplifying women’s chores through the promotion of non-motorized modes of transport and reductions in trip volume and length. Transport may also expand the income-earning activities of women and promote gender equity in society and the household.

The barriers to adopting transport technologies for women appear to be more to do with cultural attitudes than finance. Women in some societies are excluded or secluded from public life and thus concepts of honour/shame have become associated with the use of public transport or the possibility of being hooted at by cars. Women may also feel threatened and worry about their security on public transport.

The following need to be improved:

- services at off-peak hours (especially where women are working shifts in factories etc.);
- timing and frequency of services;
- a variety of modes;
- vehicle design;
- public safety; and
- a wider variety of routes and connections outside the commuter corridors (which go straight into the city centres).

3. **Special needs**

As has already been shown, the shortage of transport has a general impact on personal well-being. However some groups within society have special needs and this affects their ability to make use of transport systems. The elderly, disabled, and children have needs which should be identified and addressed. Their mobility and freedom may be curtailed by busy, badly lit, unsafe streets and poor public transport. Provision could be made to subsidize their fares or small-scale public transport could be arranged for trips to health clinics, community centres, etc. to improve accessibility.
Analysis of the urban poor is needed; the poor are not typically a homogenous group. The sex, age, and role of household members will affect travel characteristics. Indicators that reflect income distribution, access to services, literacy rates, etc. of the population can be used to affect the quality of and access to transport infrastructure. These indicators can be used to identify strategies to improve livelihoods through better access to opportunities. The urban poor may have adapted to unreliable public transport services by task sharing among the extended family units in order to make a living. These coping mechanisms should be recognized and strengthened. Transport is linked to social relationships and the maintenance of social links and networks which are used in crisis. In addition the role of rural-urban linkages should be recognized, where an urban family/individual may be supporting kin in their village and travel may be necessitated by family concerns or business interests.

4. **Road accidents**

Pedestrians are highly vulnerable road users. The more the poor rely on physical work, the higher the potential costs of physical disability. Whilst men account for the majority of road fatalities in developing countries, households are affected by their loss in emotional, financial, and social terms. Initiatives to protect the vulnerable through training and resources for road-user safety education must be coupled with infrastructure improvements and the reporting of road traffic accidents. Hospital and police records can be used to develop statistics regarding the economic costs of accidents, regional analysis, and causality by age, sex, and road-user type. These can then be used to judge the efficacy of safety measures and the costs and value of protection. The road worthiness of public transport should be assessed in terms of:

- the mechanical condition of vehicles;
- maintenance practices;
- speed limits; and
- passenger safety and comfort.

Restrictions on the number of hours worked, incentives for accident-free journeys, health checks of drivers, and driver behaviour could all be addressed by the public private partnerships.

5. **Environmental aspects**

The environmental aspects of transportation must be integrated within the traditional themes of safety, social, and economic concerns in the development of policies and programmes. Public transport vehicles are significant polluters and require effective control and regulation in this respect. Actual performance should be measured and monitored against a base line and the transport department’s environmental management goals. An understanding of the environmental costs of transport options would involve the:

- assessment of infrastructure from an environmental perspective;
- application of a ‘pollution prevention’ approach;
- reduction of air emissions from transport source;
- maintenance of biodiversity; and
- application of cleaner technologies where practicable.
The environmental and health impacts of pollution fall on those who are already disadvantaged, i.e. those living in poverty, the disabled, those with insecure housing rights, etc. The degradation of transit corridor zones may also lead to land use changes. The urban poor are more likely to take long journeys in non-air-conditioned vehicles and so suffer from air pollution. Air pollution (in terms of carbon dioxide, carbon monoxide, nitrogen oxides, hydrocarbons, suspended particulates, and lead) is responsible for respiratory and cardiovascular diseases and high levels of smog lead to increased hospital admissions.

6. **Motorization**

The growing ownership and use of motor vehicles in developing countries is seen as an inevitable outcome of moves towards modernization, increasing GDP, and income. Cars are mainly owned and operated by higher income groups, but the growing middle class are rapidly acquiring motorcycles and cars. The result of the rapid pace of motorization, however, is declining mobility and accessibility for the urban poor. There is an increasing misapplication of economic resources to the minority who use private cars, for example councils may prioritise primary and secondary roads over bicycle lanes and footpaths. Local demand for cars is often greater than the capacity of existing urban infrastructure to deal with them and other road users. Increasing private car ownership requires adequate road maintenance and the redesign of existing roads to provide a safer and more user-friendly environment for non-motorized modes. Motorization is influenced by public policy regarding:

- street space allocation;
- petrol prices;
- priorities for the mobility of private vehicle owners;
- transport subsidies; and
- transportation system investments.

Policies which promote motorization can be seen to damage economically and environmentally sustainable low-cost non-motorized modes of transport.

7. **Non-motorized vehicles**

NMVs (which includes walking, bicycles, rickshaws, hand carts, etc.) are a typically low-cost form of private transport, suited for short trips. In some areas NMVs may be a tool for targeting the mobility of low-income people. Interventions that promote NMVs (e.g. through shortcut routes for NMVs) could contribute to the welfare of the urban poor and the economic activities of petty traders and hawkers (due to carrying capacity, speed, and range of capabilities). NMVs may also play a direct role in creating sustainable livelihoods through employment opportunities for unskilled workers (driver skills are typically lower and maintenance is less skill-intensive). The efficiency and sustainability of NMVs can be maximized by stratifying different travel markets by length of trip and thus encouraging different travel modes for the different segments of the market, i.e. walking, NMV modes, or motorized transport. The emphasis in this mode is labour-intensive rather than capital-intensive and this means that they emit no pollution and use renewable energy. Thus, NMVs have an important role to play in urban transport systems and sustainable planning. NMVs are an appropriate and
efficient form of transport where the construction of motorized roads is costly/unfeasible, and where access is limited NMVs can penetrate congested areas and improve travel time and provide route options. Bicycles, for example, may be widely owned and used, allowing the rider to travel long distances for low marginal cost. NMVs are threatened by:

- growing motorization;
- loss of street space;
- other changes in the urban environment, i.e. urban sprawl (meaning longer journey times); and
- energy use.

The informal privatization of transport services may produce a more dense pattern of urban settlement. There is also a high rate of accidents associated with NMVs, presumably because of the competition for space on the road, inadequate driver training, and the lack of protection in event of a crash. Thus, projects that protect NMVs from motorized traffic in terms of safety and congestion may benefit the poor. Cultural considerations also play a part in the adoption of NMVs, as well as concerns over safety and the cost of purchase, i.e. bicycles may be associated with rural or village life and thus backwardness/poverty. Micro-credit schemes may be used to enable the poor to purchase NMVs, or MV operators may organize themselves into associations, and thus create the capacity to mobilize savings from members and negotiate with local authorities. Operators may then be given formal recognition by local authorities.

8. **Pedestrians**

The prevalence of pedestrians as part of the urban traffic on roads suggests that walking is the only option for low-income groups not served by affordable public services. Pedestrians must be accounted for in any public transport policy encompassing the urban poor. A focus on the major trips associated with employment opportunities may miss the shorter trips that household members make on foot for subsistence purposes. Women and children may make the majority of these to collect water and fuel or household supplies. These may be done on a daily basis depending on household demand, household budgeting, and time. Measures to improve their safety include improving:

- pedestrian access;
- walkways;
- junctions;
- crossing and overpasses;
- street lighting; and
- eliminating black spots.

9. **Institutional reform**

The fragmentation of institutional transport efforts is highlighted by the involvement of many ministries and local authorities within a transport sector. There need to be coordinated activities, services, and financing mechanisms in the development of inter-modal policy. A regulatory role for the state is also demanded. Public transport/supply can be integrated into urban planning by:
■ using joint planning teams;
■ sharing planning capabilities and responsibilities; and
■ pooling of financial resources.

There is a need to reduce urban public transport regulation and thus the barriers to supply of informal transport services. Involving the private sector in decision-making would also improve the distributive impacts of transport projects on the poor. Decisions must be made regarding the priorities in use of infrastructure or subsidy for public sector suppliers. There is a need for systems management — public transport is part of the total transport facilities of urban areas, thus there is a need for coordination activity between the various transport modes. Integrated planning would encompass motorization, public transport traffic congestion, environmental impact, economic growth, social policy and poverty reduction, infrastructure within settlements, and land use planning.

11. **Income generation and enterprise development**

Formal corporations and numerous operators in the informal sector meet demands for urban transport. These small operators have been able to match service, demand and cost by providing affordable services to the poor. These modes go where standard buses cannot, often giving a door-to-door service, tailored to what people can pay. In addition, these para-transit services have evolved to adapt to low capacity and poorly interconnected road systems. Yet there is criticism that the private sector is based on profitability not sustainability. Free entry to the transport market can lead to traffic jams, pollution, unsafe vehicles, unscheduled stops, decline in the quality of services, and businesses serving only profitable lines. The knock-on effects of a move from ‘public’ to ‘private’ may mean withdrawal of public services from low-demand routes and the loss of cross subsidies and thus withdrawal of fare reduction. There are a number of qualifications that need to be made to free entry to the transport market, including:

■ motorized modes, which may be made in part by local manufacturers, should be subject to crash safety specifications to improve the safety properties of the vehicles; and
■ the private sector may be equally prone to monopolistic tendencies and bad practice, i.e. they may focus on high-demand routes and avoid weak markets.

For these reasons there is a clear need for the regulation of service standards and control to safeguard consumers.

12. **Control of land use**

Residential segregation and compartmentalized land use activities accentuate the cost of maintaining existing and developing new transport infrastructure. For example, these distorted land-use patterns mean that children of lower class have long distances to travel to state schools in the absence of schools in their neighbourhoods. Urban sprawl and segregated land-use zones create greater fuel consumption, petrol use per vehicle, and pollution as well as longer journey time. Cheap peripheral land for low-income residential location is used at the cost of having to provide and subsidize cheap
mass transit systems to bring employment opportunities closer to residential areas. Location is important because proximity to the city centre brings increased modal choice. The number of trips tends to decline with increasing distance from city centre.

There is then potential for the integration of urban development and transport planning, i.e. public transport corridors. These corridors would enable existing cities to be restructured by intensifying the development of commercial or residential areas along these connecting corridors. Large metropolitan areas are increasingly becoming decentralized structures with the development of multiple subcentres (new self-contained, complete communities, towns/satellites) and local markets to supply basic household needs. The decentralization of land use also requires the decentralization of central government to district and local forms. This transfer of capacity, finances, and resources would bring decisions and services closer to the people. Thus, there is potential to prevent transport problems from becoming entrenched in these satellite towns. There is room for the packaging of land and property development rights with transport concessions. The role of security of land tenure for the urban poor also needs to be considered.

13. **Bus services**

Experience has shown that investment in public transport has a financial risk. However, there is a rationale for investing in the efficiency and capacity of existing infrastructure. Foreign aid and private investment may have a role to play in improving public transport. The need to make better use of existing roads and bus networks to encompass:

- equalities in fare structures;
- operation at night/weekends/holidays;
- marketing of services (advertising, promotion and ticketing, route numbers which are understood, timetables and route maps);
- redirection of spending from highways to public transport;
- the better use of existing networks and increase in the capacity of existing roads;
- the speeding up of passenger transfer and congestion (off-bus payment systems, wide multiple-entry doors, bus shelters, fast lanes for public transport, traffic signals to give preference to public transport);
- the gauging of consumer satisfaction with the quality of service offered; and
- the segregation of motorized and NMVs and the limiting of the use of vehicles in mainly pedestrian areas as well as providing pedestrian crossing facilities.

Managing the maintenance, operations, and renewal of existing systems is often more complex than managing new works. Extensive community involvement (not just consultation) is required in the restructuring of services, to identify alternative policies (not just to steer people into a predetermined agenda). Much depends on the development of a ‘bus culture’ rather than a ‘car culture’.
Transport systems should be economically viable and sustainable, i.e. low costs and high benefits. There are high capital costs for mass transit systems and so they might not be viable for low-income areas if these costs translate into unaffordable fares. The barriers to affordable urban public transport must be removed since public transport has the potential to be the most efficient mode, able to serve the majority of the population. The government also has a role in regulating and controlling tariffs to prevent undue increases which are harmful to low-income users and to monitor levels of service against pre-agreed targets. There is a belief that urban public transport must be subsidized in order to allow the poor to get to work. Artificially low fares may be used to support the urban poor (through cross-subsidy from more profitable routes or government blanket subsidy), controlled fares, subsidies, and operator subsidies. These subsidies can lead to overcrowding, loss of revenue from the better off, lack of vehicle replacement, and reduced incentives to operate competitively. If subsidies are used then there is a need to monitor that policy objectives are achieved and the non-poor do not capture the benefits of targeted interventions:

- Knowledge of distribution of public transport usage by income group is needed.
- The need to improve competition may be introduced in terms of expanding the length of bus runs rather than costs.
- Competition could be introduced in the form of safe bicycle and pedestrian traffic.

14. **Consensus building mechanisms**

In order to achieve efficiency and equity in transport operations and improve the treatment of poverty issues, it should be recognized that transport is not only a technical issue. The urban poor should be involved in collaboration with other users, suppliers, governments, environmental groups and NGOs/CBOs to implement solutions to transport and locate institutions that can deliver resources outside the control of the poor. Pedestrian, bicycle, public transport users, and taxi users usually lack organized voices. These stakeholders need to be included in policy decisions in addition to the powerful champions of the fuel industry, i.e. car and lorry drivers. The poor have little influence on political processes. There is a need to incorporate the expertise, knowledge, and perceptions of communities of the urban poor in order to meet their needs and develop home-grown solutions specific to local situations. A successful public/private/community interface depends on working with communities to define and develop good outcomes from legislation, regulations, authorities, government resources, and political power and private sector involvement. That said, people’s participation does not reduce poverty unless people have the capacity to organize, identify local resources, plan for and maintain change, and have bargaining power and the ability to negotiate with the public sector.
## Appendix 3: Project work plan

### Chart Information

**DEPARTMENT FOR INTERNATIONAL DEVELOPMENT**

**KaR PROJECT BAR CHART**

**NOTES:**

1. Please tick appropriate box for activity/travel month
2. A separate Bar Chart should be shown for each year of the project, additional Bar Charts can be copied from the one below.
3. Overseas travel: give names of travellers, length of stay and the countries to be visited.

Copy extra years from here:

**PROJECT TITLE**

**Partnerships to improve access & quality of public transport**

**YEAR OF ACTIVITY (eg: 00/01)**

2000/01

### Activity Table

<table>
<thead>
<tr>
<th>ACTIVITY</th>
<th>MONTH</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A</td>
</tr>
<tr>
<td>1 Literature update</td>
<td></td>
</tr>
<tr>
<td>2 Adjustment of methodology developed in phase 1 for additional cities applications</td>
<td></td>
</tr>
<tr>
<td>2.1 Collaboration meeting with TRL</td>
<td></td>
</tr>
<tr>
<td>2.2 Joint planning of fieldwork with TRL in an inception workshop producing a report</td>
<td></td>
</tr>
<tr>
<td>3 Inception visits and selection of cases</td>
<td></td>
</tr>
<tr>
<td>4 Field work at settlement and city level including local workshops and forums</td>
<td></td>
</tr>
</tbody>
</table>

### Overseas Travel

**By Dr. Sohail and/or Dr. Maunder to Asia and Africa (21 days per visit)**

<table>
<thead>
<tr>
<th>DURATION (DAYS)</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Copy and insert extra years below;
# PROJECT TITLE

**Partnerships to improve access & quality of public transport**

**YEAR OF ACTIVITY (eg: 01/02)**

2001/2002

<table>
<thead>
<tr>
<th>ACTIVITY</th>
<th>A</th>
<th>M</th>
<th>J</th>
<th>J</th>
<th>A</th>
<th>S</th>
<th>O</th>
<th>N</th>
<th>D</th>
<th>J</th>
<th>F</th>
<th>M</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 Field work at settlement and city level including local workshops and forums</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 Monitoring visits</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 Analysis and documentation of findings</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Production and dissemination of country papers.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Production and dissemination of draft guidelines</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Electronic conference on the draft guidelines</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Additional field works to test the guidelines.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>International workshop to review the findings</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>

*Rows expand*

<table>
<thead>
<tr>
<th>OVERSEAS TRAVEL</th>
<th>DURATION (DAYS)</th>
</tr>
</thead>
<tbody>
<tr>
<td>By Dr Sohail and/or Ms. Mitlin to Asia and Africa (21 days per visit)</td>
<td></td>
</tr>
<tr>
<td>To</td>
<td></td>
</tr>
<tr>
<td>By</td>
<td>X X X</td>
</tr>
<tr>
<td>To</td>
<td></td>
</tr>
<tr>
<td>ACTIVITY</td>
<td>MONTH</td>
</tr>
<tr>
<td>---------------------------------------------------</td>
<td>-------</td>
</tr>
<tr>
<td>Production and dissemination of the guidelines (validated)</td>
<td></td>
</tr>
<tr>
<td>Exploration of dissemination pathways with TRL</td>
<td>x</td>
</tr>
<tr>
<td>Dissemination, conventional and electronic</td>
<td></td>
</tr>
<tr>
<td>Monitoring of dissemination</td>
<td>x</td>
</tr>
</tbody>
</table>

**OVERSEAS TRAVEL**

<table>
<thead>
<tr>
<th>By</th>
<th>To</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DURATION (DAYS)</th>
</tr>
</thead>
<tbody>
<tr>
<td>x</td>
</tr>
<tr>
<td>x</td>
</tr>
<tr>
<td>x</td>
</tr>
<tr>
<td>x</td>
</tr>
<tr>
<td>x</td>
</tr>
<tr>
<td>x</td>
</tr>
<tr>
<td>x</td>
</tr>
<tr>
<td>x</td>
</tr>
<tr>
<td>x</td>
</tr>
<tr>
<td>x</td>
</tr>
</tbody>
</table>

Rows expand
Appendix 4: Methodological considerations
Following are some of the considerations for the design of the research.

The hypotheses to be tested and/or research questions and issues to be addressed
The assumption of this research project is that transport services make a significant contribution to the livelihood strategies of the urban poor. Their contribution (both positive and negative) to livelihoods includes access to employment and income generation opportunities, education, health, and social networks such as extended families which can help in securing incomes and necessary goods and services. Variables that affect use include the cost and accessibility of transport services, reliability, safety getting onto and off the vehicles and during journey, levels of comfort during the journey, location and quality of pick-up and drop-off points. Transport services have a further potential impact on environmental and health aspects of life in low-income settlements through noise and air pollution and traffic accidents.

With this understanding, this research project seeks to:

- investigate existing community-based, commercial, NGO and institutional roles and responsibilities for the provision of transport services in urban poor communities in case locations and, in so doing, better understand the impact of such services on the well-being of the urban poor;
- identify improvements that can be undertaken;
- establish a process which develops a momentum for the implementation of these improvements; and
- develop a framework for use elsewhere in order to improve transport services for the urban poor.

The research project seeks primarily to understand the differentiated perspectives of the urban poor with respect to transport. In order to identify service improvements, it is also seeking a better understanding of the perspectives of providers of transport services. The research process is designed to bring together these perspectives in order to increase the possibility of securing such improvements.

Possible methods to be used for collecting information/data and the methods for the analysis of it
The following methods will be used for the collection of information considered during the research process:

- literature review and synthesis of secondary data including an historical analysis of transport provision in case locations, review of existing user studies, existing studies of transport providers.
- case studies in specific communities.
  Case study information will be gathered through semi-structured interviews with key informants in four to five low-income settlements. Focus group discussions with age, ethnic and gender groups within each settlement will follow up on issues identified through the individual interviews. The perspectives, problems and pro-
posals of the urban poor in case locations will be presented back to the communities at local meetings both for validation and further exploration. The findings will be presented to a wider group of leaders from urban poor communities throughout the city.

If relevant, interviews will also be conducted with providers of transport services who are living within the case study areas.

- Analysis of transport issues for groups working across the city. Semi-structured interviews will be held with public, private and civil society representatives. Focus group discussions will also be held with the private sector providers (especially the drivers of the vehicles as strong city based organizations do not exist for this group) including trade associations. These private sector providers are primarily rickshaws, taxis, buses and mini-buses.

In Karachi the local research team identified a list of those that they believed to be significant local actors and interviewed them all. In general these were 'post holders' either by employment (government representatives, managing bus companies) or in representative capacity (bus owners association). For the 'key actors' we would follow a similar strategy, hence issues such as differentiation may not be will addressed if these groups are excluded from such posts. We would seek to sensitize the research results to these groups through household interviews and focus groups. The semi-structured interviews will be analyzed by the local research teams and the results further explored through the city forums.

- City Forums
  Using city based forums, the information emerging from the interviews and analyzed by the local research team will be further explored. The forums provide the means by which stakeholders become involved in the research process. Each stakeholder forum involves five steps:

  i. identify issues through semi-structured interviews (as described above)
  ii. identify further critical actors through the same interviews
  iii. ask one of the interviewees to be a resource person presenting a perspective to a group of others from the same stakeholder group. The chosen individual is one who has an insightful view of the issues.
  iv. have a stakeholder forum at which the perspective of the individual is further discussed and explored. At this stage, the local researchers use the analyzed results of the interviews to provoke the discussion, presenting key problems and issues before them.
  v. following the forum, the researchers draft a summary note and circulate this to participants.

Different strategies will be used for the focus groups and city forums. Focus groups will be representative and will bring together those that are similar in age, ethnicity, gender or other relevant characteristics in order to better understand their experiences. They will be selected through local organisations (residents associations and NGOs) that are working in the settlements to be surveyed. The purpose is to add value to the
questionnaire responses by discussing findings and issues that arise from the findings. City forums will involve representatives of either the same or of different groups supplemented by individual invitation as necessary. (That is, if a group does not have a formal association through which the researchers can work.) When selecting individuals without a formal association, researchers will identify those that seem to have something to say in order to contribute to the forum discussion. (As was the case in Karachi, they will also be openly advertised and people invited to take part.) The emphasis in city forums is on developing recommendations (or potentially action by autonomous parties); while findings may be reviewed, this is to establish a common starting point from which to move forward.

The analysis of data will be undertaken in the following ways:

- Information from the semi-structured interviews will be compared across the case study communities with similarities and discrepancies being highlighted. Comparative analysis (pattern matching) will also be undertaken by user groups and by transport groups. Differences between user groups, transport groups and settlements will be identified and further explored through the city forums.
- Numeric information (for example, on the numbers of journeys, cost of journeys, reasons for journeys) will be tabulated where possible.
- The analysis of information from the interviews will be summarised prior to the focus group discussions. The focus group discussions within the low-income settlements will be structured to allow for comparative analysis.
- The preliminary conclusions arising from the data analysis will be explored through the city forums.

Verification will be primarily through triangulation with four sources of data being cross-checked to ensure reliability.

- individual interviews
- discussions with communities and stakeholder groups
- existing data on transport and the urban poor
- interviews with key informants

The process of information review and examination through the city is intended to assist users, providers and regulators. In the case of users, and potentially providers, this process is intended to assist with a growing consciousness of their situation and the opportunities that are open to them. It will also open avenues for them to articulate their perspectives and solutions to the regulators (and other relevant government parties such as city planners). In this sense, the research process is intended to assist users and providers through providing advocacy opportunities. Through this growing consciousness of their situation and their choices within this situation it may assist with empowerment.
Source and quality of data/information to be used or generated in the research
Secondary data is available on some of these issues and links have already been established with the relevant departments and institutions. Whilst this data is considered to be reliable, it is limited. In particular, there is no good information on the cost of transport, nor on the perspectives of different groups of users.

The research will generate, as a result of participatory research methodology, very rich primary qualitative data. It will add to the existing data base available locally and internationally. The local researchers will be supported with training and orientation in research methodology and will be closely monitored by the project team to ensure high quality data. At the same time, they will provide the contextual understanding necessary to maintain the quality of the outputs.

Methods chosen in relation to the research objectives and the possible alternatives
There are two major alternatives which might be used: a more in-depth ethnographic study of the experience in one or more low-income settlements or a more quantitative study with a structured questionnaire for statistical analysis. The latter chosen methodology is preferred because:

- generalizability: the breadth of experience means that it is more likely to produce generalizable results that are valid across the city whilst, for the same cost, a household level study would focus on a smaller area;
- involvement of key stakeholders: the emphasis placed on the interaction of important transport-providing and transport-regulating groups is to ensure that the findings address their needs and influence the dynamics within the transport sector. It is hoped that this will assist in the introduction of improved services; and
- understanding experiences: an exploratory study is required to better understand the experiences of the urban poor when using the transport system. We are anxious to identify a range of needs, possible problems and their consequences for the livelihood strategies of differentiated groups within the urban poor.

Strengths and weaknesses of the chosen methods and the implications for the validity of the conclusions reached by the research
It is believed that the most significant strengths of the chosen methodology are that it will:

- produce a rich understanding of local perspectives differentiated by groups within the urban poor
- engage key groups in the research process
- provide a new source of information for stakeholder groups to consider
- enable recommendations for improvements to emerge from, and be considered within, the research process.

However, there are weaknesses within this methodology. The critical weaknesses are given below together with a short discussion as to how we will seek to mitigate these problems:
**Representativity of settlements:** We have concerns over the representativeness of the case study settlements. The sample chosen can be criticised for not being sufficiently large to give an accurate representation of the experience of the urban poor in Karachi. Care will be taken to examine the existing documentation of low-income settlements in the city to ensure that the areas for this research do not have anomalous characteristics.

**Representativity of key informants:** City based stakeholder groups are not necessarily representative. Not all the perspectives within each group may be represented at the meetings and second, there may be some groups that are not strong enough to participate through such forums. To address the first problem, care will be taken to both interview the main office bearers of any stakeholder group, and dissenting groups or individuals in order to present a variety of views. To address the second problem, care will be taken to interview more widely within groups which have weak representative lobbies (for example, drivers of private transport services) and a number of additional workshops for such groups will be held.

**Limited vision of what is possible:** Whilst the research process will gain a comprehensive and detailed understanding of the transport related problems faced by the urban poor, solutions are likely to be limited to those that existing stakeholders believe are possible.