urban public transport

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and sustainable livelihoods for the poor

A case study: Karachi, Pakistan

M. Sohail
with contributions
from URC and the project team

Prepared by WEDC, Loughborough University
in collaboration with the
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Contents

Introduction

Project details

This document presents the findings from Project R7455, *Partnerships to improve access and quality of urban public transport for the urban poor,* carried out by the authors as part of the Knowledge and Research Programme, Infrastructure and Urban Development Department, Department for International Development (DFID) of the British Government.

Purpose of the project

The purpose of the project was to identify, explore, and document critical issues in the provision of transport services for and in low-income settlements in developing countries. The identified issues can be used at policy and operational levels to provide better transport services to low-income communities in urban areas. In the research methodology, a sustainable livelihoods framework was used to set the research framework.

The focus of the research was Karachi, Pakistan, which is a city of between 10 and 13 million people in southern Pakistan. It is a city with diverse economic activities and a wide mix of different social groups, including a substantial migrant community, drawn primarily from India and other areas in Pakistan (for more details see Hassan 1999).

Context of the project

Alleviation of poverty is the key objective of any international development policy. The strategy adopted by donors such as DFID can be summarized as:

- Policies and actions which promote sustainable livelihoods
- Better education, health, and opportunities for poor people
- Protection and better management of the natural and physical environment (DFID).

To translate policies into action on the ground, it is necessary to understand the realities on the ground, and the historical and socio-economic context.

A holistic and integrated approach will work better than a sectoral approach to identify the key policies and practices that will improve the livelihoods of the poor. One such approach is sustainable livelihoods (SL). This study reports briefly on the findings of resulting from the application of this approach on the issue of urban public transport.

The urban context

Most of the world's population are or soon will be urbanites. The growing proportion of urban people but also the rate at which this urbanization is taking place is creating an unprecedented demand on urban services. Good quality livelihoods, particularly for the poor, depend on urban services, including public transport. Urban public transport is particularly important for the urban poor, as this is the only mode available to them for long-distance travel.

The assumption of this research project is that transport services make a significant contribution to the livelihood of the urban poor. The 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.

Practical sustainable livelihoods approach

'A livelihood comprises the capabilities, assets (including both material and social resources), and activities required for a means of living. A livelihood is sustainable when it can cope with and recover from stresses and shocks and maintain or enhance its capabilities and assets both now and in the future, while not undermining the natural resource base' (DFID 1999).

The Sustainable Livelihoods(SL) Approach is a flexible framework that can be used to identify the key issues and methodologies to explore those issues. The following section provided a brief definition of livelihoods and some core principles of SL (Ashley and Carney 1999).

Livelihoods

A livelihood comprises the capabilities, assets, and activities required for means of living.

Core principles of SL

Following are some of the core principles of SL approach.

Poverty focused

This research focuses on low-income communities and on issues related to transport which influences their livelihoods.

Responsive and participatory

The research was conducted using a participatory approach and in response to the demand of the urban poor.

Multilevel: micro and macro

The research explores macro-level factors which have influenced the livelihoods of the urban poor. The issues were also explored at micro-level, which bear on macro-level policymaking and operations. The linkage between policy and practice was also explored. An historical perspective shows hows these linkages are at work both now and also in the past.

Conducted in partnership

Perspectives from the urban poor, regulators, and the operators were explored.

Sustainable

Special attention was paid to learning both from past and present policies and operations that worked and from those which did not produce sustainable development in Karachi.

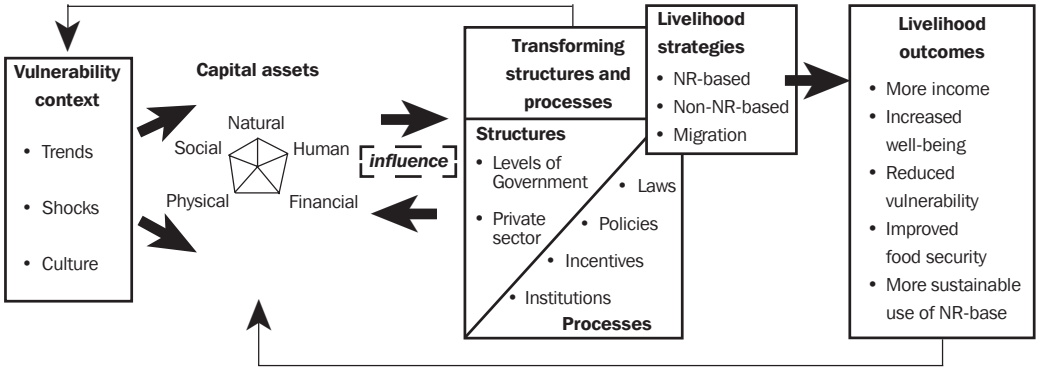
Dynamic

The socio-political dynamics of the past and present, linkages between changes at micro and macro levels, and the changing pattern of the city and changing political context were also explored to understand better what mechanisms might to improve the access to and quality of urban transport to the poor through partnerships.

Key components of the framework for analysing the livelihoods of individuals and the community are:

- capital assets;
- vulnerability context;
- transforming structures (layers of organizations both in the private and government sectors); and
- processes (laws, policies, incentives).

Figure 1: Sustainable rural livelihoods: Framework



Source: Carney, D. and Ashly, C. 1999

The framework for their interaction is illustrated in Figure 1.

The capital assets are grouped as:

- Natural capital: The natural resource stocks from which resource flows useful for livelihoods are derived (including land, water, wildlife, biodiversity, and environmental resources).

- Social capital**:** The social resources upon which people draw in pursuit of livelihoods (i.e. networks, membership of groups, relationships of trust, access to wider institutions of society).

- Human capital: The skills, knowledge, ability to labour, and good health important to the ability to pursue different livelihood strategies.

- Physical capital: The basic infrastructure (transport, shelter, water, energy and communications) and the production equipment and means which enable people to pursue their livelihoods.

- Financial capital: The financial resources which are available to people (whether savings, supplies of credit, or regular remittances or pensions) and which provide them with different livelihood options.

Urban public transport contributes directly or indirectly to all the categories of capital assets of the urban poor. The transport sector is associated with improvements in physical capital, but access to transport and other services such as schools, health clinics, and markets is integral and contributes to the development of all capital assets; hence transport practitioners have a significant role to play in understanding and supporting sustainable livelihoods as part of a multi-sectoral analysis of community life.

Under the sustainable livelihoods approach integrated multisectoral analysis is essential.

It is important to understand the structures and processes which define people's livelihood options. These are critical in determining who gains access to the various assets, and in influencing the effective value of each asset. The vulnerability context is particularly important as it indicates the nature of trends, shocks, and culture, and the ability of the poor to withstand their impact. The combinations of activities which make up a livelihood strategy are known as a 'livelihood portfolio'. A portfolio will be diversified over time, and between households, communities, and generations, so the composition of livelihood strategies is a dynamic element of sustainable livelihoods, and as such requires a historical analytical approach (for more details see Carney, D. 1998).

Focus of the project

The main aim of the approach is to eliminate poverty, however, for research purposes the question was how to improve the access and quality of public transport for the urban the poor. The work focused on formal and informal relationships (contracts), and roles and responsibilities in the context of projects where transport services have been provided to the poor.

Policy problems

- The research explored the many ways in which transport provision (or the lack of it) impacts on the lives of the poor.
- The research will thus help in dealing with issues such as settlement planning, transport planning, and transport pricing.
- The research will help in the integration of multiple transport services to address better the needs of the urban poor for transport. In addition to other factors, it has looked at the interface between the private and public sectors.

- The research has contributed in developing a better understanding of the actual and potential roles of different actors, and thus has the potential to guide policy improvements.

Practical problems

The research planned to develop a better understanding of the urban poor's need for effective and efficient transport services in order to access their places of work, education, and leisure. It has also looked at the implications of transport costs for the livelihood strategies of the poor, in particular, the differential impact of existing transport services on women, children, and the elderly.

The research has identified the environmental and health-related problems experienced by the urban poor which are related to transport services.

The likely beneficiaries of the research are the urban poor. Private sector transport through improved services and the increased financial viability of transport services should be other likely benefits. Public sector benefits from a better understanding of the needs and perspectives of the poor users and the private sector. Indirect beneficiaries are likely to be higher income users and employers.

Research approach

The research used case studies compiled using interviews and a series of focus group discussion at settlement and city level. The perspectives of users, operators, and regulators were explored and documented. An initial platform for better communication among the stakeholders was created. The project has contributed to an understanding of some of the issues related to vulnerability of the roles of key public and private organizations. The project has also addressed the key issue of the contribution of partnerships in public transport to sustainable livelihoods for the urban poor. The research has developed and tested the methodology using literature review, historical analysis, case studies, focus group discussions, forums, and workshops. It is hoped that this work will be extended to other cities worldwide in a further phase of the project.

This research aims to translate into policy and practice through:

- the involvement of key stakeholders (drawn from the public, private, and civil society sectors) in determining the priority needs for information, and the meeting of these needs;

- capacity building and involvement of the Urban Resource Centre, one of the important local civil society actors in transport provision;
- the direct involvement of both public and private actors in the research process through individual and joint stakeholder meetings and, through the latter, joint dialogue on agreed issues that need to be addressed; and
- community- and city-level cases were studied with the longer term view of scaling up the activities to improve sustainable livelihoods of the urban poor communities. It is hoped that the active involvement of community groups in the research process, together with appropriate and meaningful data collection and analysis, will lead to on-going pressure on public and private sector groups to address the transport needs of the poor.

Executive summary

The premise

The application of an innovative, partnership-oriented, problem-solving approach derived from the latest development concept of 'sustainable livelihoods', is the hallmark of this research. The ultimate aim is to establish rapid result-yielding links between the various stake-holders involved in public transport activity, in an effort to facilitate a service which can offer better access and quality for the urban poor. The city of Karachi serves as the first case study for exploring this methodology.

This is a relatively new approach to an already much discussed and documented topic, the innovation being the more realistic and down-to-earth concept of 'sustainability' which advocates a logical and systematic derivation of solutions from within the context of a problem. Sustainability of the context itself is therefore the automatic starting point of this concept. In this case study this translates into a concern for the extent to which public transport is or is not contributing to the maintenance and development (including the potential of providing sustainable livelihoods), of the city of Karachi.

As is the case for any urban system, the well-being of Karachi and the transport activity in this city are densely interwoven in an inseparable relationship of cause and effect. This exercise has confirmed that the life blood of this city is essentially the port activity and the resulting gradual proliferation of industry, which has attracted and continues to sustain a total estimated population of more than 10 million people (unofficially believed to be close to 13 million). The port and industrial activity cannot survive without the directly transport-dependent availability of a huge blue-collar labour force. This labour pool lives in the low-income squatter settlements colloquially called *katchi abadis* (estimated to contain more than 50 per cent of the population of the city), which are located at such a distance from the major job markets that there is virtually no other way to link them other than a system of mass transit.

Public transport activity therefore clearly occupies a centre stage position, a two-way life-line between the fundamental employment and residential activities which sustain Karachi.

Access and quality naturally emerge as the basic criteria for evaluating whether the transport system (in its present form as well as in any of its future proposed forms) is helping or will be helping in the development of the city or contributing towards its gradual degradation. These two issues, by virtue of their own definitions, represent the experience of the users, who also happen to have the most will to see improvements. (The public sector have almost completely withdrawn from this activity, while the overall unfavourable operating conditions ensure that the transporters/operators are concerned about little more than the survival of their business and related issues.) Hence the underlying premise of this whole project – that the existence/non-existence of public transport activity is a direct determinant of the availability/non-availability of sustainable livelihoods at all three levels: transit and related services/supporting activities being a major source of blue-collar employment in themselves; as the critical/direct link between residential and livelihood-related activities of the low-income segments; and, thereby, as one of the foremost factors affecting the well-being and sustenance of the whole city, which includes all other income-level citizens as well.

Overview

A number of activities have been carried out, including: the collection of primary data from field surveys and interviews; public forums and workshops, as the first step towards building partnerships between the stake-holders; and the final report, containing information obtained through literature/secondary data reviews, and also elementary analysis reports.

Given the premise of this research (as evident from its title), the point of view of the users of large public transport modes has evolved as the highlight of the whole venture. This proved to be the foremost source of understanding the nature and extent of the problem, as well as the starting point of any intervention actions. The large modes are the cheapest means presently existing and represent the only portion of the public transport activity which operates as a system, supposedly consisting of set routes and timings (in practice these are not followed exactly). The users of this so-called system are undoubtedly the party which has the most at stake, as they are largely people on low incomes, whose livelihood opportunities are directly dependent on the access and

quality of the set-up (see section on Current Analysis). The secondary data available on this subject was found to be devoid of any documentation of the point of view of the users, further confirming the significance/ innovative nature of this project's approach.

The findings basically show that the present transport services are severely lacking, with alarming negative impacts that directly affect the livelihood opportunities of 30-40 per cent of the already deprived low-income population of the city (who in turn constitute more than 50 per cent of the total population). The long distances between the major blue-collar job markets and the squatter settlements where they live means that these people do not have any other choice but to improvise with whatever is affordable/available – even at the current heavy cost of at least two deaths and scores of injuries per day (and the true figures may be higher than this unofficial report).

The root causes consist mainly of certain 'grand' policy decisions taken in the past (documented in the Historical Review section) which have gradually worsened over the years, leading to the current crisis situation. An analysis of the cause/effect inter-relationships of this provides important clues as to what may be avoided/included in future planning, while the 'Current Situation Analysis' highlights further details about all the participants (and hence potential partners), in the existing activity.

The 'Recommendations' section includes a synthesis of all the major findings, exploring the possibilities of creating partnerships between the actors as a means for establishing mutual co-operation for bringing about improvements (specially noteworthy are the valuable groundbreaking starting points yielded by the forums and workshops, which show that both the users and the transporters possess a substantial will for improvement – albeit for different reasons – which can be channelled into constructive/positive/sustainable ends).

In terms of 'Methodology and Process', the frustrations and time-lags resulting from the unavailability of reliable/presentable data and the vastness of even each sub-aspect of the transport activity in Karachi today together represent the extremely acerbic constraints which the research team found itself at a loss to overcome within the time-frame set for the completion of this project.

Historical review

The comparatively 'young' independence of Pakistan (1947), and the continuing overall instability (or 'adolescence') which can be attributed to a series of traumatic events accompanying or following independence is the basic perspective in which the roots of a number of detrimental policy decisions and related negative socio-cultural trends fit into a common context.

Foremost among the policy decisions is the 'grand' plan executed by the military regime in 1962-64, in which it was envisioned that with a few sweeping decisions all of the proletariat classes would be taken out of the city centre, and jobs as well as housing (through the creation of industries and adjacent labour colonies) would be arranged on the outskirts of the city. This grand plan had to be abandoned in 1964, mainly because of the limited resources of the country/city which precluded the continued high investment necessary. Unfortunately the discontinuation of this idea occurred at a most crucial and irreversible stage of its execution – the low-income areas had already been literally bulldozed out of the centre, but jobs were not created for them in the outskirts (the expected incentive-supported springing-up of industries never occurred). Then began the daily long-distance commuting activity to and from the job-intensive port and central areas of the city, creating the multiple distance/time/fare problems which continue today.

Moreover, frequent military interventions in the democratic process (including those which were ordered by the 'elected' governments themselves), and

the continued deployment of an out-dated and incompatible civic-administrative set-up (whose negative traits of poor co-ordination, fragmented duplication, growing corruption, etc., have been allowed to proliferate instead of being questioned in the light of more efficient examples existing within the developing world), have combined to culminate in the present virtually complete collapse of the civic institutions.

The transport set-up has therefore grown in an *ad hoc* manner, and no attempt was ever made to comprehensively plan a co-ordinated and rational use of the modes and routes. The infrastructure (roads, stops, terminals, etc.) has suffered from continued negligence, with the consequence that even whatever assets were inherited/acquired (the Tramway, the Karachi Circular Railway, the KTC fleet of buses, etc.) were all lost to either the accompanying spontaneous/unplanned policy decisions, or to the resulting rapid rate of erosion. Details provided in the 'Historical Review' section allow a most valuable understanding about the background of all these continuing issues, enabling the development of an appropriate and effective strategy to face them, rather than further wastage of the already meagre resources of the country in the pursuit of unrealistic grand solutions.

Equally noteworthy are the positive aspects of the past. There have been periods of good performance (details of the KTC service during 1977-84 have been included in the Historical Review), showing that a precedent for better performance does exist, and that it is therefore not impossible to achieve international standards. At a more holistic level, it can be observed that although this city has had to bear periods of extreme turmoil and violence (especially succinct is the directly transport-related violence of the mid-1980s, whose colossal negative impacts on business and commerce activity – and accompanying repercussions on not only the livelihood opportunities of the low-income segments but on the socio-economic well-being of all the citizens of the city – have yet to be assessed), it nevertheless has still managed to survive and persevere, demonstrating the immense potential for constructive intervention in this case-study. The overall root-causes for the existence of Karachi (it continues to be a major port and industrial centre, and therefore one of the largest job-markets in the country), combined with the now deeply embedded long-distance dichotomy which continues to exist within the city (between the low-income residential areas and their main livelihood activity locations), appears to provide a perpetual impetus for intense public transport activity. The concern now only remains of how the inherent momentum of this activity can best be channelled for it to acquire the most appropriate shape and

form, so that rather than inhibiting socio-economic progress (as it has been doing in the recent past), it can instead become a means of not only enhancing the whole city's potential to provide sustainable livelihoods, but can even perhaps become one of the major sources of employment itself.

Current situation analysis

The issues of access and quality have been used to evaluate and understand the prevailing conditions. The activity was found to consist of three broad levels: first, the *actual travelling activity*, in which there are three main parties or stakeholders, namely the users, the operators, and the regulators; secondly, the *related services sector*, consisting of workshops, rest facilities for drivers/conductors, vendors (catering to transit/waiting passengers), spare-parts businesses, etc.; and thirdly, the *impacts/fall-outs* of the activity, including accidents, pollution and its effects (noise as well as air), socio-economic repercussions, etc.

Access was found to be so difficult for even an average user that gender issues appear almost entirely eclipsed in comparison. A general insufficiency prevails, with people having to risk their lives by traveling on roofs during peak rush-hours, and waiting for long periods at other times timings, and in fact the services were found not to be available at all from early evening onwards in some places. Time lost because of the absence of rationalized routes and unreliable operating practices were discovered to be inhibiting not just the livelihood activities of the users, but even their social and self-development opportunities. The underlying long-distance commuting phenomenon also means that people who are already struggling to get by on low incomes are having to spend a large proportion of their income on transport being.

The lack of safety and frequent accidents/injuries are the foremost among the quality problems, while the non-maintenance of the buses and the inadequacy of their design (interior as well as exterior) makes journeys uncomfortable and encourages nuisance behaviour. Combined with the rude behavior of the drivers/conductors, the cumulative inconvenience is causing some people (especially ladies), to completely abandon their livelihood-seeking activities.

Despite these problems, the users still expressed a willingness to participate in any effort to improve the situation, and many attended the forums to give their views. The other two primary stake-holders, the operators and the regulators, had different perspectives on the problem, as expressed in separate forums/workshops conducted with them.

The main concern of the private operators/transporters is that the fares are too low, and they cite this to justify all malpractice associated with the services being provided by them. They advocate the need for an adherence to internationally used formulas for calculating the maximum and minimum fare limits (based on fuel prices, cost of vehicles, operating costs, distances, route structuring, etc.). They claim that the administrative agencies have a negative attitude towards them, quoting examples of frequent stoppages and checking of documents on the roads (designed to cause inconvenience and persuade the transporters to enter a 'deal' instead), unchecked sale of adulterated fuel/oil, etc. At the policy/planning level their grievances include:

- high import duties on large vehicles;
- absence of credit/insurance facilities;
- undue encouragement of small vehicles;
- high fuel prices;
- deteriorating infrastructure (broken roads, absence of bus-stops/depots/terminals); and
- non-implementation of recommendations submitted for and included in the national-level 'Five Year Plans'.

Nevertheless they have a positive attitude, displayed by the way they have organized a Compensation Fund on their own (in the wake of the refusal of insurance companies to insure the old vehicles being used, and non-existence of any parallel facilities from the government), through which they have managed to distribute Rs30 million among various affected groups (victims of accidents, political violence, etc.) within the twenty or thirty years since each operating vehicle began contributing a small amount regularly for this purpose. They also have a co-operative attitude towards the action-research process and are willing to participate in discussions and forums, as and when they are invited.

The distortions surrounding the role of the regulators, however, have been found to be far more complex. Traditionally it would have been assumed that, aside from temporary or exceptional lapses, the government is 'in control of everything'. In fact a number of significant realities were exposed during the research, the most vivid example being the fact that thousands of public transport vehicles on the road today are operating without valid route permits and have been doing so since the ban placed on mini-bus route permits after

the Bushra Zaidi accident of 1986. There is also an elaborate *bhatta* system (bribes paid on a regular/monthly basis to the authorities by the transporters/ street-hawkers in exchange for allowing blatant violations of laws and regulations) estimated to involve up to Rs11 million monthly just in the area of Saddar (in the central part of the city). Rampant traffic violations, encroachment onto large portion of roads, haphazard parking, etc., are among the issues which have remained unresolved over the past decade, and are expected to become even more severe if they are allowed to continue unabated.

At the policy/planning level, there are many problems.

An absence of route-planning. This actually requires a comprehensive transport plan, in turn only possible if developed as part of a proper city/ regional Master Plan, which is virtually non-existent (the Plan 2000 developed in the 1980s has not been adhered to or followed, and it was never given any legal status).

An absence of infrastructure. Out of the eight settlements surveyed in five different parts of the city, only one had a bus-stop/terminal, otherwise no proper bus-stops have ever been built. Even the places marked by signboards are rarely used, as passengers were found to load and unload randomly wherever convenient.

The policymaking process remains disconnected from the day-to-day changes occurring on the streets. One of the senior officials admitted during a forum/workshop, that the government has not incorporated the user's input even in the latest reports being prepared on the subject of Transport.

Whatever policies/decisions do get formulated, they remain largely unimplemented. The inability of the administration to enforce even a Supreme Court judgment concerning the prohibition of the pollution-creating (both noise and air) and ill-maintained silencers (exhaust pipes) being used in auto-rickshaws in 1996-7 illustrates this most vividly.

Also widespread lawlessness prevails, which is mainly rooted in the detachment/alienation of the public from the administrative mechanisms, and caused by the frequent and lengthy military takeovers and accompanying disruptions of the democratic process that have occurred throughout the brief fifty-year history of the country. One of the negative outcomes is the emergence of four mafia-type interest groups who essentially control the city, influencing all major urban processes and events.

With reference to views about the relationships which exist with the other two primary stakeholders, during the workshop on the topic of 'Regulating Agencies' certain officials said that an offer was once made to the transporters to abolition the infamous *bhatta* system, but they declined because they were concerned about the severe disruptions to the service that they expected to happen because of the frequent checking of documents, etc.

The services sector fits into the transport scene as a secondary stakeholder, consisting of workshops, service-shops, rest and eating places for operators, vendors and hawkers (catering to the passengers in transit), spare-parts businesses, parking/depot facilities, etc. An almost minimal provision for these activities exist in the infra-structure and built environment of the city, hence there is little choice for the small businessmen other than to encroach upon whatever place is available (on the streets, on sidewalks, etc.). This is a major cause of congestion and degradation in the city, and it also restricts the flow of traffic, including the passage of public transport vehicles.

At the next tertiary level of transport-related activities and processes are the impacts and repercussions of what is present on the roads today. The vastness of the two foremost issues, loss of life and property due to accidents and the transport-related decrease in the availability of sustainable livelihoods, merit complete full-fledged studies all by themselves. Pollution and the related health hazards also have an indirect affect on livelihood activities, while the overall end-result is a comprehensive physical and socio-economic degradation, expected to produce extensive negative consequences for the whole city, including all its citizens (not just the low-income users of public transport).

The freight-traffic issue and the related Northern Bypass Proposal; the proposed 'grand' Karachi Mass Transit Program (KMTP); the existence of numerous un-coordinated civic bodies dealing with transport; and overall socio-cultural issues are among a number of other separate analytical aspects which have been described in detail in the 'Current Situation Analysis' section as well as in the Appendix.

Recommendations

A three-tiered hierarchy of interventions is proposed, in accordance with the scope and nature of impact expected from each category of proposals/recommendations. The hierarchy consists of:

- long-term policy-level recommendations;

- medium-term administrative measures; and,
- grassroots-level partnerships between stakeholders.

Long-term policy-level recommendations

A number of specific policy decisions will eventually become unavoidable, and delaying these decisions will only increase the extent of harm caused to the city and its inhabitants:

1. The establishment of a single, all-encompassing official body for dealing with transport (the proposal for a Karachi Mass Transport Authority is already partially implemented, but it needs to be given legal status).

2. The initiation of a continuous process of data collection and monitoring, interaction with all the stakeholders, and localized planning and policy-making needs to be taken up by the body proposed above.

Medium-term administrative-level measures

These recommendations represent remedies which can yield almost immediate relief for the commuters:

1. The segregation of local and through road traffic, and the construction of the proposed Northern Bypass.

2. The rationalization of the routes and interchanges.

3. The revival of the Karachi Circular Railway (KCR), in conjunction with shuttle-services and bicycle/pedestrian access ways.

Grassroots-level partnerships between stakeholders

A tremendous potential exists for developing self-help solutions, in order to overcome the constraints of limited resources and lack of control prevalent in the present administrative set-up. These small projects can be taken up easily and rapidly by all the stakeholders together, in fact willingness to contribute to these type of initiatives has already been expressed by the users in the discussion forums and interviews:

1. The building, repair, and maintenance of bus-stops.
2. The cleaning of bus-stops and vehicle interiors.
3. The employment of ergonomic standards for the interiors of the vehicles.
4. The recovery of the informal cash-flows, and their constructive usage.

Action plan

On the basis of these recommendations the following immediate actions are proposed:

1. Initiation of a lobbying effort to encourage the required policy decisions.
2. Preparation of detailed proposals for the Northern Bypass and the revival of the Karachi Circular Railway.
3. Preparation of data collection and monitoring and update mechanisms to be adopted by the proposed administrative agency on transport (including graphical charts, plans, and diagrams).
4. Conducting of more forums and workshops to initiate the small-scale partnership projects, which can be later used to develop larger self-help improvement ventures.

Methodology and process

An attempt has been made in this project to build upon all research and data already available on this subject, in order to avoid wasteful repetition or elaborate detailing of impractical strategies. Therefore a sustainable livelihoods approach has been used not only to identify the objectives of the study, but to plan all aspects of the exercise, including data collection, field surveys, analysis parameters, recommendations, and methodology. The following are some of the highlights of the methodology employed:

- A preliminary analysis was first made to identify the objectives of the project, through discussions and meetings with various resource persons.

- Special care was taken to identify the key aspects of transport activity in Karachi, which were observed to have the potential for both facilitating an understanding of the problems, and also for concentrating on the most rational intervention points. The scope of data collection and processes involved were determined accordingly, avoiding unnecessarily cumbersome statistical processing, but ensuring complete coverage of all relevant information.

- Live forums and discussions were used to obtain candid viewpoints of the stakeholders, and also as the first step for building future partnerships for the purpose of co-operating on self-help improvements.

- Recommendations have been derived from within the identification and analysis of the problem, rather than being imposed on the basis of unfound external assumptions.

The following constraints severely held back the achievements of this study:

- Reliable data is not available from secondary sources, therefore original sources had to be approached, involving several logistical limitations, and disproportionate waste of time. Data collected in this way was often found to have discrepancies and inaccuracies, which also needed cross-checking and verification, again draining the time and effort needed on the more advanced levels of the project.

- The quantity, size, scope, and volume of each aspect of the subject exceeded all expectations, creating an end situation that investigations into a number of issues which were initially considered significant had to be abandoned in order to submit whatever work was completed within the given time.

A number of guidelines have been identified for better application of this methodology in subsequent phases of the project or when applying to other case studies elsewhere in the developing world. Details of these guidelines are given in the Methodology section of the report, and a few highlights are presented here as examples:

- A weekly monitoring format should be adhered to strictly, in order to ensure timely decisions about adjusting the course of action during the project in accordance to any unexpected developments and discoveries.

- Dialogues and forums can be conducted simultaneously with secondary research material scanning, in order to expedite the process.

- The research team should develop a set format for data collection from the outset, in order to avoid losing valuable data because of shortfalls in source notations, or wastage of time in re-obtaining the same material.

Conclusion

The research team feels strongly that this project has been useful as a first step in a more innovative and result-yielding direction. This further accentuates the need for follow-up exercises, however, and the findings included in this report bear witness to the severe and immediate need to address the situation.

This exercise can therefore be useful as a demonstration of the need for further exploration and intervention along the lines set through this first phase.

Methodology

Introduction

This section describes how the research was conducted, including the practical aspects, and also contains reflections from the research team. The Sustainable Livelihoods concept is the basic source from which the methodology for this action-research has been derived. The most prominent aspect of this approach is the commitment to achieving solutions which are 'do-able' as well as sustainable. Furthermore the resources required for implementation and maintenance should where possible be extracted from within the community or context of the problem itself rather than being imported, in order to enable future replication and more comprehensive and longer lasting self-sufficiency for the people. The sustainable livelihoods approach was introduced briefly in the introduction.

The local partners were involved in the development of the research proposal and hence there was less time consumed in establishing the research work plan.

The field team began its work by discussing the issues with different actors to help develop concepts and to operationally define the concepts within the context of research. The UK team adopted an enabling role, while the Karachi team drove the process. Through various participatory discussions, key actors were identified, key issues were identified, and relevant checklists were prepared for conducting a literature search, interviews, and forums. The preparatory work began even before the contract was finalized with the client. The work can be categorized into:

1. **Planning:**
   a. identification of the research locations
   b. development of a working hypothesis
   c. determination of a working methodology
   d. making a list of the tasks expected to be involved

2. **Process:**
   a. literature and secondary data review
   b. action research, fieldwork, interviews, surveys, forums
   c. documentation and analysis of data collected (from both of the above-mentioned sources)
   d. formulation of final recommendations and conclusion
   e. writing of report and presentation
   f. dissemination of the findings

It is intended to feed the lessons learned in this phase into Phase 2 of the project.

Both these categories of work are being documented and presented here including certain reflective points. A separate Guidelines is also included at the end to help anyone else to use the same methodology in future.

Basic approach

The basic approach of the project was decided upon as the first step of the planning of the research exercise.

Objectives

The objectives were to identify and explore critical issues in the provision of transport services for the urban poor in Karachi and, in so doing, to develop policy proposals for key stakeholders to improve the existing services.

In the course of the research process, to develop a methodology to help stakeholders to understand better how to improve transport provision. This methodology is intended to be potentially useful to policymakers, donor agencies, and practitioners seeking improved services in a number of other Southern cities.

Policy considerations

- To explore the multiple ways in which transport provision (or lack of it) impacts on the lives of the poor.
- To help indirectly in dealing with issues such as settlement planning, transport planning, and transport pricing.
- To help integrate the multiple transport services to better address the needs of the urban poor for transport. In addition to other factors, it looked briefly

at the interface between the private, formal, and informal and public sectors.

- To develop a better understanding of the actual and potential roles of different actors, and thus a guide to policy improvements.
- To explore the viability of the Sustainable Livelihoods approach.

Practical considerations

- To contribute to developing a better understanding of the urban poor's need for effective and efficient transport services in order to access their places of work, education, and leisure.
- To explore the implications of transport on the livelihood strategies of the poor and differential impact of existing transport services on women, children, and the elderly.
- To identify the environmental and health-related problems experienced by the urban poor which are related to transport services.

Working hypothesis

It is useful to focus the inquiry by using a working hypothesis. The assumption of this research project is that transport services make significant contributions to the livelihood strategies of the urban poor. These contributions (both positive and negative), include 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 users include the cost and accessibility of transport services, reliability, safety getting onto and off of the vehicles and during the journey, levels of comfort during the journey, and the location and quality of pick-up and drop-off points. Transport services have a further potential impact the on environmental and health aspects of life in low-income settlements through noise and air pollution and traffic accidents. The objectives were formulated with this understanding.

Objectives (detailed)

The following details about the objectives were decided and planned.

Description of the objectives:

- Investigate existing community-based, commercial, NGO, and institutional roles and responsibilities for the provision of transport services in urban poor communities in Karachi 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, and establish a process which develops a momentum for the implementation of these improvements.
- Develop a framework for use elsewhere in order to improve transport services for the urban poor.

The project sought primarily to understand the different perspectives of the urban poor with respect to transport, in order to identify service improvements, and also to achieve a better understanding of the perspectives of providers of transport services. The research process was designed to bring together these perspectives in order to increase the possibility of securing improvements. The research was expected to generate, as a result of participatory research methodology, very rich primary qualitative data, which would add to the existing database available locally and internationally. The local researchers were expected to gain training and orientation in research methodology, while being closely monitored by the project team to ensure high quality data (and also at the same time provide the contextual understanding necessary to maintain the quality of the outputs).

Anticipated outputs

The following outputs were envisioned at the outset of the study exercise:

Short booklet

Short draft booklet containing review, situation analysis, and policy conclusions to be available locally and internationally.

Electronic conference on draft booklet

This will open the debate to wider audience. Invited participants will be drawn primarily from those interested in transport issues. A range of perspectives will be sought, hence we will invite both those interested in transport and poverty, and transport and the global environment, to participate. The suggestions and comment will guide further work.

Workshops at city and settlement level

The forums will be held to consolidate and validate the data collected and share the information with the key actors. Trained researchers will facilitate the forums.

Methodology to be developed, explored, and documented

A methodology for process analysis, participatory research, and advocacy will be developed to address the transport problems of the urban poor.

Anticipated risks

The link between research, policy, and practice is a difficult one. In particular, the acceptance of research often requires careful timing to ensure that the relevant institutions are receptive to the emerging knowledge. These risks were minimized in this programme because of the integral involvement of key stakeholders in the research process and the investment of the Urban Resource Centre.

Whilst the danger of non-participation of the key officials was considered, the research project benefited from the existing reputation of the Urban Resource Centre within the city. Drawing on past experiences, it was ensured that the policymakers attended the forums and were willing to be involved in this study.

Benefits / beneficiaries

Identification of the benefits and beneficiaries was outlined in the following manner:

The likely beneficiaries are the urban poor. Through improved services and the increased financial viability of transport services, private sector transport providers may also benefit. Indirect beneficiaries are likely to be both higher income users and employers.

The research methodology was developed with a view to being translated into policy and practice through:

- the involvement of key stakeholders (drawn from the public, private, and civil society sectors) in determining the priority needs for information, and the meeting of these needs;
- capacity building and the involvement of the Urban Resource Centre, one of the important local civil society actors in transport provision;
- the direct involvement of both public and private actors in the research process through individual and joint stakeholder meetings; and, through the latter, joint dialogue on agreed issues that need to be addressed;
- community- and city-level cases to be studied with the longer term view of scaling up the activities to improve the sustainable livelihoods of poor urban communities. It was hoped that the active involvement of community groups in the research process, together with appropriate and meaningful data collection and analysis, will lead to on-going pressure on public and private sector groups to address the transport needs of the poor.

A summary of research activites

The planning stage also involved elaborate technical details to develop a research framework. Core principles of the sustainable livelihoods approach weres used to identify the likely direction of enquiry. The process is briefly described in this section:

The project purpose was taken as the focal point in developing the research framework. The project purpose was:

To identify, explore, and document critical issues in the provision of transport services for and in low-income settlements in a study city (Karachi) with a view to developing methodology, addressing policy and operational issues, and applying these in other cities in a subsequent phase of the research.

Modes of transport

After discussion with the researchers and the key informants, it was decided that the modes of transports that are most relevant are:

Motorized

- bus
- mini-bus
- coach
- contract carrier
- autorickshaw
- taxi
- Suzuki van
- boats

Non-motorized

- animal-drawn carriages (such as tongas and victorias)
- cycles

Major components of the studyIt was decided after discussions and initial review that the main components of the study could be divided into:

- Part I: Historic perspective of transport issues in Karachi
- Part II: Situational analysis of current issues
- Part III: Issues and recommendation
- Part IV: Methodology

It was thought that an early focus on different components would enable the team to run the activities in parallel. The section on historical section was intended not only to provide the case study with a rich historical context but also provide a link between micro and macro variables.

Key perspectives

After initial review and discussion it was evident that the perspective of the users in the debate about public transport is lacking. It was recognized that the key actors are:

- users
- providers/operators
- regulatory agencies

Major activities

In light of the focus of the project and after identification of the gaps and the key actors a working research framework was developed to undertake research.

Collection of secondary information

The main activities identified were literature reviews and development of references and bibliography, sorting of information, and synthesis.

Collection of primary information

The main activities were:

City forums

- users
- operators
- regulators

Wider information collection

Information was collected from the key actors:

Users

- To select four or five low-income settlements and get 100 to 150 interviews. Appendix 5 provides an example of how the selection of low-income settlements was made. Appendix 1 provides an example of the considerations given in selecting the case settlements.
- Interviews will also include perspectives from women, children, senior citizens, and people with disabilities.

- Interviews with people at destination points such as:
  - bus-stops
  - hospital/schools
  - railway stations
  - inter-city bus terminals

Users involved in an accidents (one or two interviews from each settlement from people who were directly involved in accidents)

A brief profile of the users is given in the Appendix.

Providers or operators

It was aimed to cover the following key informants:

- 5-6 interviews with owners of transport vehicles
- 8-10 profiles of the transporters associations
- 8-10 profiles of transport workers of (drivers and conductors)
- 2 interviews of insurance companies to find out various possibilities of motor vehicle insurance

Regulatory/government

The key organizations were identified on the basis of the existing information and reviews. The organizations were:

- Traffic Engineering Bureau (TEB)
- DIG (Deputy Inspector General) Traffic
- Regional Transport Authority (RTA)
- Karachi Metropolitan Corporation (KMC)

Two interviews with key informants from each of the following regulatory agencies was aimed for.

Miscellaneous information

Route map

No reliable route map was available, so the local research team took the initiative and developed a route map of the existing transport system.

Records of traffic violations

To find out the nature of traffic violations and involvement of buses and mini-buses and other vehicles the following information was thought to be useful:

- Route violation and fitness test

Citizens initiatives to manage traffic

Information in the press and interviews were undertaken with the key actors.

Development of relevant checklists

Relevant checklists of the issues to be explored were developed (see Appendix). The lists were not rigid and necessary changes were made during research. Any new issue was welcomed. The livelihood issues were implicit in many of the issues, and livelihood principles were used in identifying the potential key issues. The developed checklist of the issues was then pilot-tested during the initial phase of the research.

Planning of the data collection activity

The case study approach used various methods of collecting evidence. Elaborate planning was done prior to the data collection exercise. Details about decisions taken on how the primary and secondary data was to be collected are being presented here, along with the decisions about conducting the forums.

Primary data collection

Case study information was collected through a literature review including unpublished local reports and semi-structured interviews with key informants in four or five low-income settlements. In total some 20 interviews were undertaken in each of the case study settlements, all with users of the services. Additional interviews — a further 10 in each settlement — were undertaken with selected individuals travelling to and from these settlements at nodal points. These settlements were selected from the Urban Resource Centre's existing database. Care was taken to achieve an adequate representation of gender and age groups within these interviews. The interviews were based on the developed checklist around the identified issues. The issues were triangulated by key informants and literature review.

Details of the strategy were decided during the planning stages in the following way:

Options

There were two major alternatives which might be used: an 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.

Criteria

The criteria selected for choosing a research method is summarized as:

- Generalizability: logical replication rather than statistical replication was aimed for. 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 are 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.
- 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 constraints

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 to enable recommendations for improvements to emerge from, and be considered within, the research process.

There are some areas, however, which with due care can improve the effectiveness of the methodology.

- Accuracy of information about settlements: We have concerns over the representativeness of the case study settlements. The sample chosen can be criticized for not being sufficiently large to give an accurate representation

of the experience of the urban poor in Karachi. Care was taken to examine the existing documentation of low-income settlements in the city, however, 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 there may be some groups that are not strong enough to participate through such forums.

To address the first problem, care was taken to interview both 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 was 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 has gained 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. The disadvantage of a single city study is that insights gained in other cities cannot be used to challenge assumptions about what is possible. In the short term, this problem will be addressed through a rigorous process, which inputs alternative ideas into the city forums. In the longer term, it is hoped that the key actors in Karachi will also be drawn into the second phase of the research.

Triangulation of information

Verification was primarily through triangulation, with four sources of data being cross-checked to ensure reliability, including:

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

The lists of issues for the semi-structured interviews were developed from an analysis of existing community case studies and then piloted with individuals prior to being finalized.

Discussions/forums/workshops

The checklists of issues and the issues raised in the semi-structured interviews were the basis of the forums/workshops. Care was taken in planning the

forums so that a spread of age, ethnicity, and gender was reasonably maintained. The forums were not only used to learn about the problems and proposals of the urban poor in Karachi, but also were used for validation of information collected. The other role of the forums was the concurrent dissemination of the research information. The findings were presented to a wider group of leaders from urban poor communities throughout the city. Using forums, the information emerging from the interviews and analysed by the local research team was explored. The forums provided the means by which stakeholders become involved in the research process. Each stakeholder forum briefly involves the following five steps:

1. Identify issues through semi-structured interviews.
2. Identify further respondnets/actors through the same interviews.
3. 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.
4. Have a stakeholder forum at which the perspective of the individual is further discussed and explored. At this stage, the local researchers use the analysed results of the interviews to provoke the discussion, presenting key problems and issues before them.
5. Following the forum, the researchers draft a summary note and circulate this to participants.

Once such a forum has been held for each of the stakeholder groups, a larger group of up to 60 people is then convened to explore issues between the different stakeholders. It should be stressed that the purpose of such a forum is not to secure agreement but rather to allow the perspectives of the different stakeholders to be reviewed by a wider group.

Analysis

To analyse the transport issues for groups working across the city, semi-structured interviews were held with public, private, and civil society representatives. Focus group discussions were also 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. The semi-structured interviews were analysed by the local research team with support from the UK-based team. The results were further explored through the discussions in city forums.

The analysis of data was undertaken in the following ways:

- Information from the semi-structured interviews was compared across the case study communities with similarities and discrepancies being highlighted. Comparative analysis (pattern matching) was undertaken by user groups and by transport groups. The differences between user groups, transport groups, and settlements were identified and further explored through the forums.
- Numeric information was tabulated where possible.
- The analysis of information from the interviews was summarized prior to the focus group discussions. The focus group discussions within the low-income settlements were structured to allow for comparative analysis.
- The preliminary conclusions arising from the data analysis was explored through the forums.

Secondary data collection

Sources for secondary data were also discussed while planning the methodology.

Secondary data is available on some of the issues and professional agencies like the Traffic Engineering Bureau and the Engineering Department at the university were very useful. While data from such sources is considered to be reasonably 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.

A strategy for data collection was formed during the planning stage which would included literature review and synthesis of secondary data and contain an historical analysis of transport provision in Karachi, a review of existing user studies, and existing studies of transport providers. The database of the project includes international studies as well was other research activities.

Workplan and activities

It is important to draw a work plan for activities in consultation with the local partners. The plan should have the flexibility to accommodate changes such as local holidays and celebrations, which may effect the work plan. The following work plan was chalked out.

Schedule of activities

1. **Preparatory phase** During the preparatory phase the researchers:

- draw together the secondary literature in a report,
- identify the case study settlements and key city-level informants; and
- prepare the research tools.

During this phase, a UK-based team member visited Karachi and worked with the URC to develop the research methodology and tools and to analyse the secondary data. (For example see Appendix)

2. Primary research phase During the primary research phase the researchers:

- collect the settlement and city level information (individual interviews, focus groups and key informant interviews);
- undertake preliminary analysis of this information;
- prepare the initial findings; and
- conduct the city-level forums.

3. Completion phase During this phase the researchers complete the research and report on the initial findings and review these findings through city-wide discussions;

- share the findings more widely through an electronic conference;
- finalize the city and international publications;
  disseminate the findings through a number of different means of communication; and
- a UK-based team membervisited Karachi to help the URC with the analysis, review of the findings, and the development of the conclusion.

The law and order situation in Karachi and political changes in Pakistan have affected some of the activities for a short period of temporarily. While the law and order situation in Karachi might be perceived to be a major risk, it should be recognized that the main reason why transport is currently targeted during disturbances (as is the case at present) is the high level of frustration with existing services. The process of the research will hopefully offer transport providers insights into how, both individually and collectively, they can improve the services that they offer.

Responsibilities in the research process

The following decisions were taken regarding the roles and responsibilities of the research teams from the beginning.

- Overall management of the research project was clearly assigned. The tasks for primary and secondary data collection and the analysis of the data were clearly defined. Procedures were developed with the local members for documenting the processes, collecting and indexing data, choosing retrieval mechanisms, and investigating possibilities for automatic data retrieval.

- Channels of communication within local partners and among the UK-based partners was clearly defined. The main contact point in the UK and in Karachi was established.
- Specialist inputs were clearly defined and managed in a way that the local partners get the full benefits of such inputs without any interference in their research process.
- The local team was organized and capacity building sessions modelled around the actual job were organised. These discussions included the topics such as research methodology, techniques, and analytical framework. The team was lean and the members were selected to complement the skills and not to duplicate, though there were some areas of overlap. Both male and female researchers were involved in the research process.
- Time for deliberate interim reflections and frequent meetings was built into the research programme. The research process was developed into a very organic process.
- Logistics requirements were estimated right from the beginning and efficient support was maintained throughout the research.

Process

Research in action

Highlights of the actual proceedings of the practical work undertaken are presented here, along with reflections from the local team. It is hoped that the documentation of the research process and the reflection will help in undertaking similar research activities.

During the research process some reporting and monitoring tools were developed by the local team to improve the research monitoring. The team developed a simple weekly progress-monitoring format (a copy is included in Appendices 7,8 and 9). Copies of two schedules which were prepared are also included.

The research activities were categorized as follows:

- settlement visits / interviews
- documentation of the interviews
- collection of secondary data / sources
- compilation of secondary data collected

- analysis of interviews
- compilation of data obtained from interviews
- presentation of compiled data into a report format
- conducting forums / workshops
- formulation of recommendations
- documentation of process / methodology

Upon reflection the team feels that there were certain parts of the process which could have taken place simultaneously, and thereby the overall time taken for the study could have been used more effectively. These lessons could only have been learned by the team after going through the whole exercise, so it was a capacity building and lesson learning process. The documentation of the process can guide future work of similar nature, by this team or another. The categories of work listed above do not necessarily correspond to the order in which they were undertaken. Certain points on the sequencing of work will be presented later.

Settlement visits/interviews

Reflections on the dialogues undertaken with the communities in the settlements are presented here in the form of brief notes:

- Existing links and contacts in the community are very useful when working in low-income settlements. These links can be crucial in dealing with the women and children.
- An initial visit to the community, even a short one, is helpful in being accepted in the communities. An introduction to the research can be provided during these initial visits.
- An early link with community activists can be useful in identifying names of the people who regularly use public transport.
- Before starting an interview, it is always beneficial to explain the project objectives, and to start with a an informed discussion on the subject of transport.
- After the interview, it is always useful to leave the contact address and number in case the interviewee wants to add some more information.
- Interviews were held mainly on Saturdays and Sundays. Urban poor people are very busy and the researcher should respect their activities. It is out of kindness that the poor have accommodated our research in their schedule.
- The researchers conducted interviews with women inside the houses. Usually female researchers interviewed the women.
- During interviews group discussions were also encouraged.
- At settlement level, people usually believe that transport is not an immediate/internal problem which they can/should solve by themselves, but after applying the sustainable livelihoods principles they started to appreciate the links.

Documentation of the interviews

- Notes were taken during the interviews, which were later re-written in a fair manner, then they were typed (in Urdu).
- Interviews were documented as soon as they were completed.
- Initially an effort was made to record the interviews, but it soon became evident that the people were reluctant to speak in front of the taperecorder, so notes were taken by hand.

A copy of a general questionnaire prepared for the interviews with the some key informants is presented in the Appendix.

Medium of communication

The respondents feel more comfortable communicating in their local language. This has created additional translation work for the research team. In some cases non-text-based mediums like photographs and charts were used to communicate with the respondents.

Processing the information from the interviews

The following steps were taken to process the information:

- Copies of interview transcripts were made.
- The interviews were typed up in the local language.
- Concurrently, the issues mentioned in the checklists were highlighted through the process of group discussion among the researchers.
- The paragraphs and sentences were then coded according to the discussion of the issues. First the portions were coloured with highlighters, then they were cut out with scissors, and then they were pasted onto separate issue sheets. This exercise became the basis for the analysis of the types of comments recorded on each issue.

Upon reflection, the team felt that a better coding system might have been more efficient. Instead of cutting and pasting paper, it could have been done on computer as the interviews were proceeding. The use of software for qualitative data analysis can also be considered for future work.

The analysis process involved the following major steps:

- Some of the interviews were analysed. The team members reflected on the findings in a group discussion and then more interviews were analysed. The process was iterative.
- It was realized after the work began that important information can be sorted out during the data collection phase, there is no need to wait for all the interviews to be completed.
- It was learnt that a proper format for documenting the interviews has helped to speed-up the analysis.
- The involvement of field researchers in the analysis was helpful. They could link a number of aspects, which were not explicitly noted in the documentation, or which would have been difficult to extract.
- Because semi-structured and unstructured interviews were used the analysis process became more time consuming. Therefore it was learned that the entire team of researchers must understand clearly the overall implications

for selection of the research methods from the beginning.

- After compilation of all interviews a final analysis of the interviews was performed.

Compilation of data obtained from interviews

After the completion of the analysis sheets, as described above, broad categories for tabulating the findings were decided and the number and list of comments obtained were listed/counted accordingly. These lists were then translated and presented by issue in narrative form in the report. The research teams learned that:

- A systematic scheme to sort information from the early stages of the data-collection activity is essential.
- Each interviewer should not only document the interview but also process the information as soon as possible.
- A good documentation process helps to sort out the information easily.

Collection of secondary data sources

The availability of reliable data was the main constraint. Some of the basic information which is generally assumed to be available was lacking, such as the maps of the bus routes. The time consumed in locating sources, obtaining the information, and then verifying the facts was far more than expected. It is still hard to quantify such efforts. Some comments are as follows:

- It was generally found the libraries are poorly maintained, i.e. no proper catalogue was available, and books and reports were missing. The listing and collection of the material was, therefore, a difficult process.

A filing system for storing the information was developed. Initially some notes were made and filed but the source information was not recorded properly. Later on, at the stage when footnotes for the report were being planned, it was realized that to re-check the source information for each statement being used amounted to locating the material all over again. Afterwards a format was established for noting source information, and all the facts and statements collected from that point onwards were filed only when their source was noted down completely in the format agreed.

A copy of one of the table formats developed for noting down information about modes and infrastructure is presented in the Appendices.

Compilation of the secondary data collected

The books, papers, reports, and unpublished reports were collected and reviewed. The process of recording the collected data involved the following steps:

1. Developing categories of information.
2. Sorting the information into different categories.
3. Developing a bibliography and references.
4. Developing abstracts of the plans and related information.
5. Immediate computer feeding of the sorted material to develop a database.

Presentation format and report writing

A format consisting of charts and issue essays was considered but later, in order to maintain the report-like character of the presentation, a more straightforward and simple chronological style of presentation was chosen. The scanning and sizing of photographs took an extensive amount of time, until it was learned to do this more efficiently.

Conducting forums/workshops

Forums were advertised using notices through the existing networks to invite the participants. Transparencies and charts were prepared for a brief presentation before each Forum (see Appendix).

The following are some of the steps involved in conducting the forums:

- Meetings were held before the Forums, to explain the objectives.
- Dates and time were fixed according to the participants' convenience.
- Venues were selected within the respective settlements for the Users Forums.
- Community groups and/or activists were given the tasks of inviting all the participants.
- Proper invitations were issued for the Forums.
- A reminder was sent before the Forum.
- All proceedings were recorded and transcribed.
- A brief introduction of the participants facilitates discussions.
- A brief presentation of the key findings from the key actors also proved to be useful to stimulate the discussion.

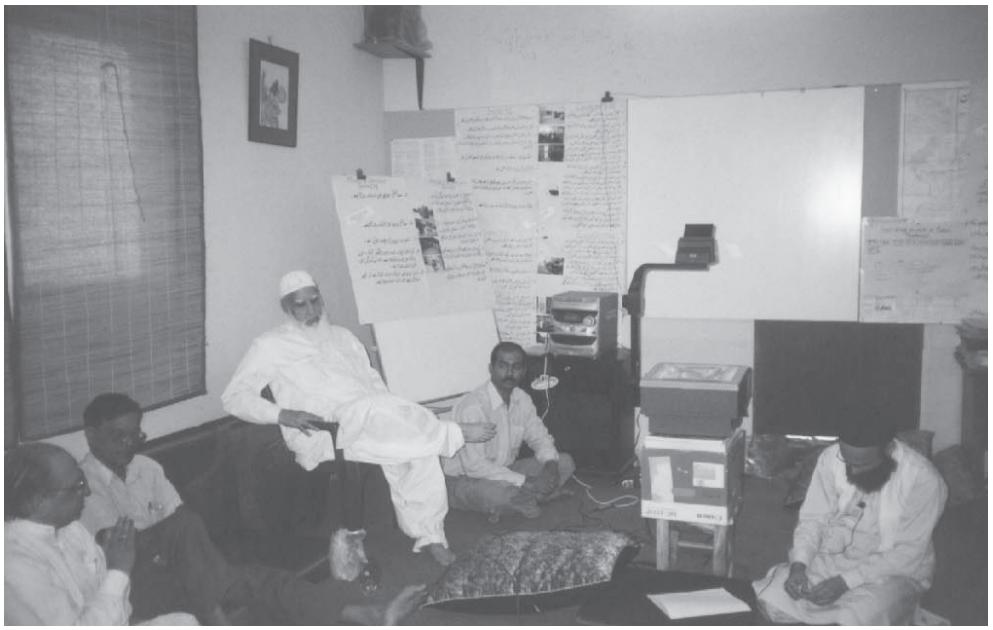
- More time was felt to be required for the discussions.
- No rigid format was used, only a tentative programme used for planning purposes.
- Participants were encouraged to speak openly but care was taken that the forum was not 'hijacked' by the most vocal participants.
- Women were allocated a separate slot and were prompted to speak during the discussions.
- The sharing of experiences and contact details among the participants was also encouraged.

Formulation of recommendations

Regular meetings were held to discuss the analysis and recommendations of the research. Not only specialists were involved but also some key informants were also consulted on regular basis.

Photographic documentation of the process

Photographs have been taken of all meetings and process work. Minutes of all the meetings have also been recorded, and the complete record is in the research database. Also three meetings were held, one each for the researchers, key informants, and specialists, to compile the guidelines, note relevant points about the process, and also to reflect on what the team had achieved and learned from this project.



Guidelines

This section presents some guidance notes based on what was learned while conducting this research. The intention is not to duplicate the information available in the standard texts on research methods, but the following notes will be useful for anyone trying to replicate similar research methodology in a different case study.

Overall Research

- A specific and clear focus for the research should be identified at an early stage. Developing questions around the project purpose could facilitate this.
- Before starting, the scope of the research should be defined within the available time and resources.
- The processes and the stakeholders to be explored should be identified as soon as possible. Preparation of lists of kinds of information required and its sources can help.
- The roles and responsibilities of different partners should be clear. Developing an outline of the outputs and how those will be used in future can help to focus on the topic during research.
- The research approach should be made operational by clearly developing operational definitions of the concepts using simple terms.

Research team

The members of the research team should bring complementary skills and capacities. They must respect each other's views. Their vision about the research topic must be clear and they should all have an equal understanding of the issue. Co-ordination among partners is crucial in conducting this type of research. Defining a clear chain of communication facilitates this. The responsibilities of different partners should be distributed on the basis of the capacities of the team members. Team members should be aware of the difficulties each other will face, and should help each other as much as possible.

Preparation of checklist

From the main research questions and the operational definition of the concepts in the context of research approach, key issues can be listed and a checklist developed. The purpose of the checklist is to ensure that all the intended issues are covered during fieldwork. Checklists should be reviewed from time to time and new questions may be added. The categories of the interviewees should be defined earlier, and separate checklists should be prepared for each stakeholder.

Preparation of fieldwork and distribution of responsibilities

Before starting the fieldwork, logistical arrangements must be made, including securing the use of cameras, cassette recorders, cassette tapes, notebooks and pens/pencils. If these responsibilities are distributed among the team members it will help. The tasks of recording the interview, taking notes, observing, facilitating and co-facilitating should be clearly assigned to team members. This practice will help to save a lot of time and other resources.

Conducting interviews

To conduct the interviews in the settlements, identify the resource person from each settlement and explain to him/her the purpose of the visit. That resource person will be very helpful when the team is ready to conduct interviews and forums in the future.

The interviewer must be sure about the purpose of the interview. He/she must know the topics on the checklist in order to avoid repetition. The interviewer must observe the interviewee and her/his environment during the interview. Sometimes interviewees hide some facts, and if the interviewer is observing and is sensitive to what is being said, the hidden facts can be explored. This practice will also help in analysing the information. The interviewer should know the art of extracting information tactfully without going into unnecessary detail and without ignoring what the interviewee wants to say. Good listening skills are important. In some instances, it is better to explore the sensitive issues without asking direct questions.

Additional questions, arising from the discussion, must be noted during the interview and should be asked after the interviewee completes his/her discourse. These supplementary questions can become the part of the checklist later on.

Feedback of interviews within the team

After conducting an interview the team members should review their notes and share the experience. They should analyse this sample and critically evaluate their performance in order to improve their efficiency.

Writing up interviews

Information gathered through interviews must be written up without delay. The notes should include not only what was said but also what was observed in terms of the gestures of the interviewee and the environment around him/her. If the interviews are not recorded quickly such observations may be lost.

At this time the observations should be explained, which will help in analysing the information later. At the end of each interview personal reflections and observations about the interview should be written.

Analysis of the interviews

The observations and information must be analysed using the sustainability framework. The information must be triangulated to improve its reliability and validity.

Conducting forums

A forum or series of forums can be conducted with different stakeholders such as regulators, operators, and users. The outcomes and other relevant issues which have emerged during the process of research should be presented to the forum. Keeping in mind the role of different stakeholders, they can be encourgaed to share the responsibility of solving some of the issues themselves. A new partnership comprising different stakeholders can thus be created to solve a particular issue.

Section 1

History

Introduction

An understanding of historical developments in urban transport provides a useful framework around which to analyse the current situation and make some inferences about future directions. The lessons learned from history are important to facilitate decision-making at policy and operational levels.

This analysis addresses issues which have had and will continue to have implications for urban transport and the livelihoods of the poor in Karachi. Some of the main issues include the growth pattern of the city, processes involved in the transformation of the city, socio-economic dynamics in the political context, and the reasons for some decisions that worked and those that failed.

Urban public transport in Karachi provides a critical link between the two activities of the city: economic/industrial growth and the resulting precipitation of low-income settlements. A well-functioning transport network facilitates the economic and industrial growth at micro and macro levels, thus providing the means for the city to develop. A non-functioning urban transport network, on the other hand, can degrade urban life. A glance through the history of Karachi shows both these aspects of urban transport. In recent times the effects of the non-functioning transport system are having an increasing harmful impact on the lives of the urban poor.

This document presents some of the key events in the history of Karachi since the city was settled about three hundred years ago. The history of Karachi is a story of the transformation and growth of a city which now provides livelihoods to most of Pakistan's urban poor.

The historical analysis involved the collection of primary as well as secondary data. The study involved a review of both published and un-published documents, interviews with the key informants, and the use of news items. A proactive approach was adopted not only to describe the historical events but also to actively look for lessons learned. The lessons offered by past successes and mistakes facilitate the future decision-making process.

The analysis is presented in chronological order. A number of trends came and vanished, but some have persisted. Repercussions have at times been positive, but the more negative ones have finally come to dominate the public transport activity in Karachi. A successful application of the recommendations, however, holds the promise of establishing a more relevant, efficient, and sustainable transport system for Karachi, which can also contribute to the sustainable livelihoods of the poor.

Pre-independence Karachi

Karachi is Pakistan's largest and most populous city, and it has both an international airport and a port. Even before Pakistan won independence from the British Empire, Karachi was a commercially vibrant city.

Transport

Up until 1885 private animal-drawn carriages were the only means of passenger transport, as the population was small and the layout of the city convenient for walking. At that time the British government introduced conventional public transport services in the form of a tramway with pre-set timings and routes.

The Victoria

Animal-drawn carriages had been used since the first settlers came to the area now known as Karachi (Baillie 1997:83). Horse-drawn 'Victorias' were imported from England during British rule, and a few of these models are still in use today (Lari 1996).

The Tramway

Soon after being appointed Secretary and Municipality Engineer, James Stratchen started to improve the infrastructure of the city. The municipality accepted a tender submitted by Edward Matthews of London for a concession to operate a tramway system (and the system was later sold to the East India Tramway Company). The Karachi Tramways Act of 1883 was passed, and on

20 October 1884 construction began on a light rail tramway. The line was open for public traffic within six months (ibid.:131) and was initially operated by the East India Tramway Company (Baillie:122). Some people think that the use of modern tramways could be appropriate today and that they should be reintroduced. It is interesting and important to note that some sort of public–private partnership (PPP) was in place to fund this system some 115 years ago.

Buses

Petrol-fueled buses were introduced in the 1930s using buses released by the British Army (Mian 1982:4). Three large companies were operating just before independence in 1947 according to the Karachi Bus Owners' Association: Heera Nand Transport Company, Hussain Bus Service, and the East India Tramway Company. General Motors began to assemble 'Bedford' buses (URC 2000).

Government policy

The first legislation to control transport activity was enacted in 1939 (Waqar-ul-Haq 1999:178) as a result of recommendations made in a study that had just been completed (Hasan 1999). The adequate provision of transport for the public, including safety, cleanliness, accountability, and proper management (Kamal 1995) was co-ordinated with the planning and development of the rest of the city, covering the width of streets, open spaces, etc. (Khuhro and Mooraj 1997). District and municipal administration and police were already in place, as were the implementing and regulating authorities (Baillie 1997).

Even at that time there was some consideration given to the links between different sectors. Public transport was seen in the context of the overall development of the city. The administrative and management skills required to run the system were available, but the skills were restricted to the ruling Europeans (Lari 1996).

Repercussions

Karachi grew again during the first half of the century, as did the transport system, and the whole population benefited from the increased economic activity. In fact in the period between 1901 and 1911 labour had to be imported (Hasan 1999:20).

Karachi had the organizational and technical capacity to run the city at that time. So what has happened, since then?

Post-independence Karachi: 1947-1958

West Pakistan struggled to establish itself during its first ten years. Karachi was the capital of the new country, and this period was very unstable for the city, with sudden demographic and economic pressures on transport activity.

The population of Karachi was about 450,000 in 1947, and this number more than doubled in the first three years after independence. The city accepted an influx of approximately 600,000 refugees from India between 1947 and 1951, while approximately 170,000 people migrated to India (Hasan 1992). The 1941 and 1951 census figures show a net increase of approximately 629,000 — more than 150 per cent.

Although the government made arrangements for addressing the new demands, there were periods when the transport activity was being handled purely by private concerns (Khuhro and Moraj 1997; Qasim 1978).

An increasing demand for transport services

The rapid population growth in the city resulted in a corresponding growth in the demand for transport. The main demand was for travel between job locations and settlements (URC 2000).

The new migrant population initially settled mainly in the city centre or around an area called Saddar, in whatever open space was present, including parks, playgrounds, school buildings, cantonment lands, and also in the vacant public and religious buildings of the old town (Hasan 1997) such as the government secretariats, and civic and educational institutions. These settlements became concentrated around the Saddar bazaar, and the city became a 'high density multi-class compact city with no transport problems' (ibid.). The main place of work was the city centre (although the Sindh Industrial Trading Estate or SITE had already been established in 1946 towards the north-west of the city) (Khuhro and Mooraj 1997).

But the migrants gradually shifted out into other locations. Co-operative housing societies were developed for government employees around the periphery of the city, while other migrants were successfully relocated on land belonging to the Sindhi Goths the boundary of city was expanded by converting rural land along the Lyari river. Other colonies were also developed between 1950 and 1953 on over 2500 acres of land at a considerable distance from the city centre.

Addressing the increased demand

In 1948 the government began to provide transport services to and from the new settlements (URC 2000). In 1950 central government handed over the system to the newly established 'Karachi Improvement Trust', which was upgraded to the 'Karachi Development Authority' in 1957 (Hasan 1997). This initiative soon proved to be inadequate. The newly formed independent government had limited resources in terms of both manpower and finances, so a number of private companies appeared to meet the increased demand. Details about the number of companies, their names, buses owned by each, how the buses were purchased, government policies at that time, and the operating structure, etc., were recorded by the Karachi Bus Owners Association (URC 2000).

In 1956 the purchase price of a new bus was almost 200 per cent more than in 1946, and the private bus owners asked the government to revise the minimum fare limits. The request was turned down, and as a result all of the large companies disbanded, and all of the buses were sold to individuals (ibid.).

The expansion of the private sector

Large buses and the tramway were the main transport options during the 1950s, along with a limited number of taxis. The planning and organization of the transport system and transport activities was non-existent, which resulted in much mismanagement: at one point 29 different makes of bus were being imported into the country. According to the Karachi Bus Owner's Association, the Heera Nand Transport Company changed hands and became the A.M.Qureshi Co., and it is reported by the Chartered Institute of Transport that the East India Tramway Co. was purchased by Mr. Mohammad Ali in 1951, and became the Mohammad Ali Tramway Co. Five more new companies were formed: Rehman Transport, Ehsaan Corporation, Pakistan Transport (Riyasat Bros), Choudhry Transport Co., and Gujarat Bus Service; each owned between 30 and 50 buses (ibid.). The makes of the buses being used were Bedford, Mercedes, and Leyland, and later other makes were introduced, such as the Thames, while the name of General Motors was changed to Gandhara Motors and they continued to assemble Bedford chassis. Diesel buses were introduced in 1951-2 (ibid.). After the disbanding of the transport companies in 1956 moneylenders financed the purchase of buses from vehicle importers. The buses changed hands frequently and continue to do so today, as one operator after another finds the business to be unprofitable (URC 2000).

The expansion of the municipal sector

The Chartered Institute of Transport has documented in detail public sector involvement in transport activity (Qasim 1978). In June 1948 Government Commercial Transport (GCT) was established with capital of Rs750,000 (35 per cent contributed by the central government, 65 per cent by the provincial government). GCT began to operate twenty Chevrolet and Dodge buses between Bolton Market and Malir Cantonment/Malir City, and reportedly a fixed time schedule was efficiently maintained (ibid.).

In 1949, twenty more Morris buses were introduced on two routes: Bolton Market to Clifton, and Paradise Cinema to Mauripur. In that year GCT made a profit of Rs320,000 (ibid.).

Twenty-four additional buses were introduced in 1950 and a new route from Bolton Market to Landhi was added. The GCT continued to run as a profitable government organization, and in 1953 its name was changed to Sind Road Transport Corp.

On 20 June 1954 a decision was taken to shift all provincial government offices from Karachi to Hyderabad, and for a period of three years from July 1954 to August 1957 the public sector was completely out of transport activity in Karachi (Khurho and Mooraj 1978).

The Karachi Transport Syndicate was formed on 1 December 1957 under the patronage of the minister at that time. A depot was established behind the Central Jail, and a fleet of 280 buses started operation on route numbers 13, 15, 15B, 15C, 16B, and 16E. The syndicate was not successful and broke up in December 1958 (URC 2000).

Government policy

Planning and policymaking activity remained confined to the immediate consolidation issues being faced by the newborn country. The first planning activity consisted of developing a Six Year Plan prepared in 1951 (for 1949-55), then the first Five-Year Plan appeared in December 1957. In 1954 the four provinces of West Pakistan were amalgamated into the single province of West Pakistan (Khuhro and Mooraj 1997).

A plan for Karahci (MRV) was prepared in 1952 by the Karachi Improvement Trust, in collaboration with a Swedish firm (Hasan 1992). The main transport proposal of this plan was a scheme to house the working-class residents and skilled refugees in ten-storey apartment blocks within the city so that they

would be near their place of work. A new civic centre to house government activities was proposed for the outer boundary of city (where the *sabzi-mandi* is presently located). A road network and a mass transit rail system for the future expansion of the city was also proposed (Hasan 1997). This plan was never implemented, mainly because the high capital investments envisioned were beyond the resources of the new state (Hasan 1992:3).

Repercussions

Karachi has had access to few resources since its relatively recent birth, and this situation persists today. There have been numerous advantages to the involvement of private investment in urban infrastructure, such as the reduction in capital investment, planning and management costs, and overheads and salaries of the government. But these advantages existed alongside quality service only when the private investment was in the form of large transport companies with sizeable fleets of vehicles, as was the case until 1956. After the abolition of the large companies in 1956, these advantages were offset completely by the weaknesses of the resulting fragmented private sector involvement. Transport activity was pursued as a meagre means of survival rather than as a public service. The resulting compromises on long-term quality-based profits in preference to immediate petty gains resulted in poor maintenance of vehicles, discourteous behaviour of operators, infrequent services, non-adherence to schedule, lawlessness, unsafe driving, unabated noise and air pollution, and *ad hoc* service activity arrangements.

1958-1968: Martial Law

The instability in the government finally resulted in a military take-over, and a number of decisions were taken which have since had a major impact on the demography and development of Karachi (ibid.). Direct and sweeping changes were attempted in both of the two main income-generating activities of the country, namely the introduction of green revolution technologies in the agricultural sector, and an aggressive approach to speeding up the industrialization of the country (ibid.).

A decision was taken to build a new capital, Islamabad, while a well-known Greek planning firm was engaged to develop a fresh Master Plan for Karachi (ibid.).

Government policy

Greater Karachi Resettlement Plan (GKRP)

The resulting Greater Karachi Resettlement Plan (GKRP) dealt with two main concerns: the removal of the refugee colonies from the centre of the city, and the co-ordination of their relocation outside the city with the creation of new job-generating industries through the establishment of incentive-based formation of 'industrial estates' (ibid.). The plan aimed to remove 119,000 homeless families from the city centre, and to develop housing for 300,000 additional families in a fifteen- to twenty-year period (ibid.).

New townships were created fifteen to twenty miles to the east and west of Karachi. Initially 45,000 one-room nuclear houses were planned for these two colonies, complete with all urban services and centred around the proposed new industries, but by 1964 only 10,000 were built, and the plan was shelved (ibid.).

The main reason for the shelving of the GKRP was that the industrialization planned for the colonies did not take place, perhaps because the incentives were not attractive enough, and so no employment was generated. With no jobs near their new homes, the people who had been forced to vacate the city centre started to settle into new squatter settlements (*katchi abadis*) which began to emerge just outside the city in the open ground along the roads leading to the proposed new satellite towns. These new *katchi abadis* were mostly developed by middlemen, and were located on or along natural drainage channels. Expected repayment from the few beneficiaries did not materialize either, causing the state to face serious financial problems in providing housing (ibid.).

Increased transport demand resulting from policy decisions

Since new industries in the satellite towns did not emerge at the pace envisioned, the inhabitants of these new *katchi abadis* had to travel to the city, the port area, and the SITE area. This was the beginning of the long-distance transport problems which have plagued the city ever since (ibid.). In addition there was a massive influx of peasants and smallholders, mostly from the Punjab, to the urban areas (ibid.). Almost all of the industrialization took place within Karachi, albeit at a slower pace than planned and not located in the planned industrial estates. The people displaced by the green revolution migrated to the city in search of jobs, accounting for a 50 per cent growth of the city during this period, and also laying the foundations for the physical division of the city into rich and poor areas (ibid.).

The resettlement that took place was contrary to the basic GKRP concept, and the resulting transport activity was also an unexpected consequence. In spite of the removal of the lower-income families from the city centre, congestion in the city increased because of the traffic generated by the displaced people commuting back to their jobs in the city and turning the area of Saddar, the city's cultural centre, into a transit area. As a result of industrialization and surpluses produced by the green revolution, port activities expanded greatly, but the rail transport system and warehousing did not expand correspondingly. This, combined with state support for trucking, caused an increase in cargo traffic on the roads, and haphazard roadside warehousing began to emerge, leading to further congestion of the city areas nearer to the port. This was aggravated by the expansion in the wholesale market activities in these areas to cater to the growing population of the city (ibid.).

A response to the demand: The Karachi Circular Railway

The Karachi Circular Railway (KCR) was set-up in 1964, and reportedly carried thousands of commuters punctually every half an hour, charging a mere 0.25 paisas for its fast and reliable service. It used to make 104 trips daily during the 1970s (Hoodbhoy 2000). The service started to decline in about 1979, as a result of the failure of successive governments to replace the worn-out engines and bogies and maintain the tracks and stations. The need to navigate 23 railway crossings hampered the trains from maintaining their schedules, while 'ticketless travellers' increased among the already declining numbers of users. By 1985, the train service had been reduced to 93 trips daily, and the service was losing Rs12 million per year. In 1998 the trains were making only 12 daily trips, and the KCR was losing Rs6 million annually (ibid.).

New policy directions

After the failure of the GKRP, the government decided in the mid-sixties to develop new plot townships to the west of the city, namely Orangi, Baldia, and Qasba. These settlements had no infrastructure but the state provided transport and water was supplied by tankers (Hasan 1992). The unexpected problems of transport, increasing inner-city congestion and degradation, development of unserviced *katchi abadis*, and related infrastructure inadequacies, led the government to engage the UNDP to prepare a Master Plan for Karachi in 1968. A semi-autonomous body known as the Karachi Master Plan Department was formed in KDA to prepare the Karachi Master Plan (KMP) 1974-85 (Hasan 1997). Also, a Motor Vehicles Taxations Act was enacted in 1959, a Motor Vehicles Act in 1965, and The Stage Carriages Regulation in 1969 (Waqar-ul-Haq 1999).

The expansion of the municipal transport sector

On 5 January 1959, the Karachi Road Transport Corporation (KRTC) was established as a joint venture of the central government and the public, who were invited to buy shares. A total of 324 Bedford buses, including 24 double-deckers, started operating from four depots at Landhi, Malir, Orangi and Liaquatabad. The headquarters, along with Central Stores and a Central Workshop, were established at SITE. After a promising start, KRTC operations started deteriorating within a couple of years (Qasim 1978).

Privatization

The KRTC was wound up only five years after its creation, and the government's share of the organization was bought by Gujurat Transport in February 1964. Further deterioration took place, however, and for the next three years KRTC operations were taken over by a consortium of Commerce Bank and Valika Group, under the name of Khalid Riffat Transport Company. This organization also broke up, in December 1967. From January 1968 to May 1968 urban transport in Karachi was once again totally in the hands of private operators (ibid.). Private transport operators continued to expanded in Karachi during this period as new route permits for both passenger and cargo transportation were issued — mostly to people from the NWFP province of the country, the home province of the Martial Law Administrator (Hasan 1999).

The informal response

Just as the new *katchi abadis* were being developed by middlemen — the beginning of large-scale informal sector housing development in Karachi and the origin of the land 'mafia' — a similarly informal mechanism or 'mafia' began to emerge in the transport sector (Hasan 1997).

1968-1978: Elected government

In 1969, fifteen years after its amalgamation, West Pakistan was again split into four provinces, Sindh (where Karachi is located), Punjab, NWFP (North West Frontier Province) and Baluchistan (Ahmad 1978). After the India–Pakistan war of 1971, it is estimated that about 350,000 refugees arrived from Bangladesh (Bakhtiar 1989). The development of the Steel Mills complex, the Export Promotion Zone, and Port Qasim took place, creating what is known as the eastern corridor, and adding to Karachi's transportation problems (Hasan 1997).

Government policy

In 1969, the government liberalized the route permit system. (Before then permits had been granted according to political affiliation, and individuals rushed to enter the transport business and the big companies offered them loans and gained control over them (Ilyas 1991).) In 1973-4, the Provincial Transport Authority divided the city into two routes (Dawn 1996a,b; News 1996).

In 1970 small Suzuki pick-ups were allowed to be imported without duty restrictions (Hasan 1999).

Summary of transport in Karachi at the end of 1960s

At the end of this decade Karachi had (Qasim 1978):

- 45 per cent of all motor transport in Pakistan;
- over 75 per cent (12,000) of all the auto-rickshaws in the country;
- 60 per cent (10,000) of all the taxis in the country;
- 900 buses;
- 1800 mini-buses;
- local trains operating on a main line, the Malir Cant. Branch, the Korangi Branch, and the Circular Railway; and
- over 100,000 private cars and about 75,000 motorcycles and scooters (ibid.).

The city was consuming more than 33 per cent of the motor fuel in the country (ibid.).

By 1976, Karachiites undertook 7.59 million daily trips (including return trips), a rate of mobility of 1.62 trips per person each day. Most (75 per cent) travel was for necessity (i.e. work, business, schooling, and shopping), and the remaining 25 per cent for social and recreational visits. Mass transport carried 58 per cent of passengers (buses and mini-buses accounted for 95 per cent, and the railway 5 per cent), while 42 per cent used private cars, scooters, taxis, and auto-rickshaws.

Municipal transport

The Karachi Omnibus Service

As a result of persistent public demand, in June 1968 the government initiated the Karachi Omnibus Service, a subsidiary of the West Pakistan Road Transport Corporation, and operations began with a fleet of 100 buses from Malir Depot (ibid.).

In November 1968, 532 Swedish buses were received as a gift from the Government of Sweden and the Landhi sub-depot was opened, while the Korangi sub-depot, built at a cost of Rs3,232,446, was commissioned on 1 January 1970 (ibid.).

The SRTC experience

The West Pakistan Road Transport Corporation was disbanded when the province was split into four, and the Sindh Road Transport Corporation was established, starting its operations in Karachi with 636 buses (278 in Malir, 299 in Korangi, and 59 in Landhi). The Central Stores for SRTC were established in the SITE area in June 1973 (ibid.).

The SRTC later embarked on an ambitious five-year plan with a capital outlay of Rs250,000,000 and a fleet of 2000 buses. Gulbai Depot was commissioned in June 1974, with a fleet of 65 buses, but had to be closed on November 1976 due to losses (ibid.). The Orangi Nullah Depot was commissioned in July 1974 with 75 Bedford buses and started operating on routes 2, 2B, 2C, and 3, while the Deh Mehran Depot was commissioned with a fleet of 50 buses for University Operations on 45 different routes, but these also proved to be ill-conceived projects and both depots had to be closed in January 1975 (ibid.).

Model depot was commissioned in July 1974 with 65 Bedford buses operating on routes 1C, 1E, 1F, and 1K, while the Landhi Depot was converted into Central Workshop in November, 1973. Within eight months the workshop was shifted to the SITE area, and finally had to be closed in August 1975. It was converted into Central Depot, with 45 buses running on route 1D (ibid.).

Although various measures were taken and the provincial government invested heavily, the SRTC losses continued to grow, and finally the central government appointed a high-level committee in November 1975 to investigate the lack of performance. On the recommendation of this committee two Urban Transport Corporations (UTCs) were to be created under the Ministry of Communications, one for Karachi, and the other for Lahore/Islamabad. The SRTC was divided on 1 February 1977 into Karachi Transport Corporation for the city (one of the two UTCs), and SRTC for the rest of the province, under the provincial government (ibid.).

Initiation of KTC operations

The Karachi Transport Corporation (KTC), a federal corporation under the Ministry of Communications, was owned jointly by the federal government (two thirds) and the provincial government (one third). It had a board of six

directors, of which four were from the federal government — the Secretary Communication (Chair), Joint-Secretary Communication., Financial Advisor, and Communications and Managing Director — and two were from the provincial government — the Secretary Transport and Secretary Finance. KTC took over SRTC's assets in Karachi, consisting of the headquarters, six depots, Central Stores and the Central Transport Training Institute, and 347 buses — the other 797 were beyond economical repair. Out of these 347 about 200 were on road while the rest needed major repair and overhaul (ibid.).

According to a former KTC official, the whole fleet was not even five years old, and the bulk of the buses, which had been turned into junk, were less than two years old. Out of the 113 vehicles received from Hungary in February 1976 only about 55 were running, 10 needed major repair, while 48 had been declared junk as they had been so cannibalized for spare parts (Qasim 1979a). On the other hand there were 5332 staff to run the surviving fleet of 200 buses at a monthly salary cost of Rs1,700,000, thus about 27 people were on the payroll for each bus that was on the road. The total outstanding liabilities on 31 January 1977 were Rs3,580,000, with a monthly loss of Rs4,500,000, on average. The cost of running each of the buses was Rs6.82 per mile, whereas the income was Rs2.18 per mile. Thirteen employees of the former SRTC had been permanently stationed at the residence of the former chairman for domestic services, and income from the buses was used for personal purposes at the expense of the Corporation. Workshop facilities were practically non-existent, there was no system for maintenance, inspection, or repair of the vehicles, and nothing remained of the 532 buses received from Sweden in 1968. There was no system of accountability, dishonesty was evident in all purchases and procurement, and 'most of the employees admitted to me that they were ashamed of identifying themselves in public as Sindh Road Transport Corporation employees', relates Brig. Qasim, a former KTC official (ibid.).

It took about three months to bring the ratio of employees per urban bus down to the internationally accepted figure of 10 (bringing the total down from 5000 to about 3000). Some of the former employees went to court to try to get their jobs back, but none succeeded in being reinstated (the fact that KTC was a federal corporation rather than a provincial one helped them to get the result they wanted in court) (ibid.). Within one year the tasks of re-organizing the five inherited depots, establishing a Central Workshop and a Transport Training Institute, overhauling about 200 repairable buses taken over from SRTC, and the introducing 100 new Bedford buses had been completed. The new buses cost Rs20,000,000. The chassis were purchased from National Motors,

and the bodies were built through State Enterprise by Republic Motors and the Trailer Development Corporation. Operations began in November 1977 and these buses continued to run satisfactorily for a number of years (ibid.).

During the political turmoil of March to May 1977, KTC lost 10 buses which were completely burnt out, and most of the remaining buses were damaged by broken windscreens, window-panes, lights, etc., while the unprecedented rain and flood of 30 June 1977 also damaged the vehicles (Qasim 1979b).

Introduction of the mini-bus

Mini-buses were introduced by the newly elected government following the 1971 war with India. Route permits were handed out as political bribes and favours to people who were not from the NWFP (people from NWFP had been heavily involved in transport activity during the past regime). Those from NWFP did purchased the permits soon afterwards, however (Hasan 1999).

In the beginning most owners operated their buses through hired operators but later another system was introduced. This involved the permit holder advancing a loan to operators for the purchase of the bus, and recovering it in monthly instalments, along with a high rate of interest. This system had the advantage that the permit holder no longer had to haggle with the operators over financial matters, or worry that he was being cheated, and his earnings also increased (ibid.).

This development led to the birth of the Karachi mini-bus mafia, whose powers were admittedly limited , because public transport and private transport companies still handled most of the activity. Although a demand for more mini-buses existed, loans for their procurement were not easily available. In the seven-year period between 1973 to 1979, it is estimated that loans for only 600 mini-buses were advanced by the financiers (approximately Rs90 million) (ibid.).

New government plans: Greater Karachi Resettlement Plan (GKRP)

By 1971, it was estimated that approximately 1.3 million people were living in squatter settlements, and combined with other problems this provided the background for the 1974-85 UNDP Master Plan (Hasan 1997). A very ambitious housing programme was proposed and developed but failed to materialize because the related proposals for credit, technical advice services, and other social sector facilities did not materialize. The cost of development

remained unaffordable to the low-income groups, in spite of large subsidies. The schemes therefore remained empty for years on end, and speculators or middle-class residents subsequently purchased many of them, till the programme was all but abandoned by the late seventies (ibid.).

The Karachi Master Plan had also developed land-use plans that identified areas for institutional development, recreation, environmental enhancement, and industrial growth. Locations for metropolitan and sub-metropolitan centres were identified in the suburbs of the city, and the concept of cohesive and sustainable communities was developed for these areas (these areas included Liaquatabad, NIPA Chowrangi, North Karachi, and Baldia) (ibid.).

Transport-related proposals

The KMP stressed the need for the development of an appropriate bus system. The vast majority of Karachiites also wanted improved roads. The KMP identified the needs of the services sector for transport, and proposed locations for bus terminals, depots, and workshops. It proposed the upgrading of the circular railway as a mode of mass transit, and studies were undertaken and proposals developed to expand the rail system into the suburbs and develop a rail corridor through the city to serve Saddar and various locations in the business district (ibid.). A road network along with a number of bridges on the Lyari river was proposed to link up various areas of Karachi, reducing distances and preventing unnecessary movement through Saddar and the inner city. To make rehabilitation of the city possible, southern and northern by-passes were planned to allow all port traffic and inland trade-related activities to move out of the inner city, in order to reduce congestion (ibid.).

Implementation of the plan

The road network was developed, the bridges built on the Lyari, and part of the southern bypass completed, but the other proposals in the master plan failed to materialize. The development of the road network did open up new areas for development and shortened distances (ibid.).

Other policy decisions

The state encouraged the construction of high-rise buildings by making new building by-laws. This was facilitated by investments from expatriates who were now working in the Middle East and sent money home. This encourage speculation, making land prices unaffordable for the urban poor. The resulting ‘flat (apartment) culture’ was introduced in Karachi and new markets started appearing in an un-planned manner, increasing the congestion in the inner city and Saddar area (ibid.).

Repercussions

The non-implementation of many of the Master Plan proposals (such as the bypasses, a proper bus or rail system, terminals, depots, and workshops, etc.) later compounded the city's transportation problems. The spaces earmarked for terminals and depots were either encroached upon or given away eventually through a process of political patronage, while the roads became the sites for these activities. A service sector thus developed around these roads causing further encroachments, and in the absence of the bypasses the inner city became further burdened with warehousing and storage for port-related and inland trade traffic (ibid.).

1978-88: Military rule

The military ousted the government in 1977, and their policy of covert support for the Afghan struggle against the Russian invasion of 1979 resulted in lenient cross-border controls and high traffic of refugees, arms, and heroin (Hasan).

Karachi became the centre of the drug trade that financed the Afghan war, which was accompanied by a trade in guns and the subservience of important state institutions to the emerging mafias. This, combined with the political alienation resulting from the dictatorship, lead to ethnic politics, violence, and large-scale administrative apathy and corruption (Hasan 1997). Refugees were coming in both from the Afghanistan war and the Iranian revolution, and it is estimated that about 200,000 refugees were added to the city's population (ibid.).

The population of the *katchi abadis* increased from 2 million in 1978 to 3.4 million in 1988, while in the 1980s the eastern corridor became the fastest growing corridor of the city, further adding to the transportation problems (ibid.).

In 1988 there were 1500 buses in the city (Bakhtiar 1989).

Municipal transport

The KTC service

By mid-1978, about 14 months after it began operating, the KTC was experiencing a number of problems. About 700 unserviceable buses were still lying in the KTC depots, creating many operational and maintenance problems. The Central Workshop was geared-up to undertake major engine overhauls and

prevent the sub-standard ex-SRTC fleet from deteriorating any further. Its capabilities were limited, however, and there was still a large backlog of major repairs. Finally measures were initiated to supplement the workshop by using the capacity of some manufacturing units and the private sector. The 20-year old bus routes and termini were becoming out-dated and the low fare structure was causing losses; between 1947 and 1978 the operational costs had increased by more than 400 per cent, while the fares had been increased by only about 25 per cent. There was also a shortage of buses: between 1947 and 1978 the population had increased ten-fold, but the number of buses, including privately operated ones, had only increased from 543 to 1000 in 1978. There was also a need for one centralized transport authority for the Karachi metropolitan area (Qasim 1978).

The Central Transport Training Institute was re-activated, initially by offering refresher training to the existing staff, and later on its scope was expanded considerably to take up the training of apprentices as required by the Apprentices Ordinance of 1962, and then the services were further extended to the private sector. By 1978, 40 boys were undergoing training as fitters, mechanics, electricians, and welders, while the government selected the institute to provide conversion and refresher training to heavy vehicle drivers as part of the measures to minimize the number of road accidents (ibid.).

From 1978 to 1982, with the financial backing of the federal government and full support from the provincial government, a five-year development plan for KTC was completed successfully, including the:

- induction of the 100 new Bedford buses and an additional 450 Fiat buses, the arrangement of the transfer of body-building technology — consisting of drawings, jigs, and fixtures — which introduced the building of large (112-seater, as opposed to the 57-seater models of Bedford and Mogurt operating up until then), modern and strong body-making technology in Pakistan;
- establishment of a new building to house the Transport Training Institute, the Central Workshop, and the Central Stores;
- construction of two new depots at Deh Mehran and North Karachi;
- acquisition of land for and establishment of new bus termini and depots (Central Bus Terminus near Empress Market on a 5000yd^2 plot, handling about 200,000 passengers daily, and two others at Nazimabad and Khokhrapar); and
- acquisition of two floors in the KDA Civic Centre building for a Head Office (Qasim 1979a).

Plans for improving the municipal sector

After the visit of a team of London-based transport experts, various systems were introduced for:

- repair, maintenance, and operation;
- human resource development (including the use of strict merit criteria for new employment applications, as opposed to politically influenced recommendations and patronage);
- financial control and inventory management (to minimization pilferage and misappropriation of funds and stores);
- control of the activities of various labour unions (the existing labour laws proved to be sufficient for achieving this); and
- the setting-up of an Airport Coach Service.

The planning included consideration of the fact that with the expected commissioning of Port Qasim, the Pakistan Steel Mill, the Export Promotion Zone and other industrial commercial and residential development in the east and south-east of the city, Karachi would be a poly-centric city by the late 1980s, instead of it being a concentric city revolving around the economic activity in the Saddar and Port areas only (ibid).

The development of a transport mafia

After 1978, about 5000 mini-buses were added to Karachi's transport system. It is estimated that Rs1.5 billion was given as loans by a handful of transporters to the mini-bus operators in the period between 1979 and 1987 (Hasan 1999). In this money-lending system, the bus legally belongs to the transporter until the operator has paid off his loan along with interest. There is no formal agreement, and if the operator cannot pay an instalment then the bus is simply taken away from him. He has to take care of all repairs and maintenance himself, the transporter arranges for his driving license, and if he is arrested or fined then the transporter uses his influence with the authorities for his release but for this the operator has to pay in cash or in kind (ibid.).

This situation was similar to bonded labour, since the operator is not in an employment contract but instead working to pay off his loan or to free himself. He works long hours and has little concern for civic obligations and/or legalities in his struggle to meet the monthly instalments (ibid.).

This system of finance and operation, backed by huge sums of money made on the black market, established the political and economic power of the trans-

port mafia in this period. The role of the administration was reduced to one of employee rather than authority, or perhaps senior partner in this ruthless business. A number of incidents illustrate the balance of these new relationships. In November 1985 the transporters forced the government to agree that mini-bus drivers who kill people will only be charged under section 304-A (accidental death), and not under section 304 (causing death not amounting to murder), or section 302 (murder), irrespective of the circumstances of the case.

The Bushra Zaidi Case: A public protest

On 15 April 1985, Bushra Zaidi died under the wheels of a speeding mini-bus outside Sir Syed College in Nazimabad. This event provoked a protest during which dozens of mini-buses were set ablaze. The protest soon took the shape of a battle between the people of Karachi and the transporters, and then into an ethnic conflict between the Urdu-speaking people and the Pushto-speakers from NWFP. On 17 April troops were called out and major parts of the city were placed under curfew. Later the conflict triggered a clash between Urdu-speakers and Punjabis and local Sinshis as well, which then spread into other cities. More than 1500 people died in the five years following this incident, despite Bushra Zaidi's father announcing his forgiveness for the driver. The people wanted a better transport system (Abbas 1990).

1989-99: Up to the present situation

A new Master Plan

In the late 1980s the government of Pakistan, with UNDP assistance, initiated another Master Plan, the KDP 2000. Unfortunately the process did not take into consideration the informal development lobbies which had become important providers of services in Karachi during the eighties. These lobbies had by then become influential interest groups and they were neither consulted nor did they participate in the plan formulation (Hasan 1997).

The plan further assumed that the state planning and development institutions had the necessary organizational culture and skills to implement the plan. In fact the steering committee of the plan, of which the chairman was the chief minister of Sindh, was not even able to convene to approve the plan. Hence the plan has no legal standing and many of its recommendations are being violated (this situation continues to date, showing that Karachi's planning has not been a priority with the four governments that have been in power since the plan document was completed in 1990) (ibid.).

The failure of the transport system

According to a press report, in 1996 there were 1887 buses operating in Karachi, even though 6000 were required, according to the standard set for developing countries of one bus for every 2000 people. Out the 146 routes considered bus-worthy by the Regional Transport Authority (RTA), only 45 routes were being covered (13 by KTC buses and 32 by private buses) (*Daily Dawn* 1996a).

In 1996 the KTC was supposed to receive a monthly subsidy of Rs6.6 million, but in April only Rs3.7 million was received. Funds were not even available to pay salaries. The government had made provision in the 1996-97 budget for Rs10.42 million to repair KTC buses. Between 1994 and 1996 24 new KTC buses were destroyed and 184 were damaged during violence stemming from the city's law and order situation. The damages cost KTC an estimated Rs55.5 million, but they received no compensation. Fifty buses were in the work-shops awaiting new tyres and batteries. The Sindh provincial government was finding it difficult to pay the Corporation's subsidy.

According to a KTC official, there were a total of 309 buses, of which 97 were beyond repair and 91 needed repair (at an estimated cost of Rs20 million). In 1976, it cost Rs13/km to operate a bus, including the daily expenditure of Rs1200 on diesel and Rs15,000 per month on maintenance, owing to the poor condition of the roads. It was estimated that buses served barely 2.5 per cent of the city's commuters, while earning was only Rs2.50 per fare. The Managing Director claimed in a press interview at the time (1996) that this was the cheapest fare Asia, although the buses were earning an average of Rs3000 compared with just Rs1800 by other mini-buses. The daily wages for the staff were only Rs100 for the driver and Rs120 for the conductor for on average 16 hours of work and up to 20 hours According to the Road Transport Ordinance of 1968 and the Motor Vehicles Ordinance of 1965 bus staff were not allowed to work more than eight hours a day. It was reported that buses were operating only 28 of the 45 routes needed by Karachi University (*Daily Dawn* 1996 b,c,d; *The News* 1996).

The President of the collective bargaining authority of the KTC Workers' Union also pointed out in a press statement that private 'coaches' and about 200 'contract' buses had been given route permits, contrary to the directives of the Motor Vehicles Act of 1965, to operate on some of the same roads as KTC buses. These irregularities were attributed to bribes or *bhatta* of Rs2000 per month to police, the Road Transport Authority, and the Provincial Transport Authority (The News 1996; Daily Dawn 1996) .

By December 1996, it was estimated that the KTC was running at a loss of about Rs10 million per month, as out of a total of 303 buses it owned, only 100 were operational (*Daily Dawn* 1996a).

Privatization of municipal services

On 15 May 1996, the Chief Minister of Sindh assured the public and parliament that there would be no privatization, but in his budget speech which followed a few days later, he announced the opposite. The possibility that KTC would be closed down or privatized became imminent. A task force was established under the Additional Secretary Development, comprising the Secretary Finance, Secretary Transport, and Director General EXPACO and a report was prepared by an appointed sub-committee, including the Managing Director of KTC. It was estimated that KTC's assets were worth 1.4 million, whereas their liabilities totalled Rs1.3 million. KTC's accounts had been sealed by the Income Tax department (a dispute that dated from 1991), and two of its plots, one in Gulistan-e-Jauhar and one in Surjani Town, had been put up for auction in order to raise funds to pay dues to hundreds of its workers (*Daily Dawn* 1996e,f,g,h; *The News* 1996b).

KTC was also supposed to pay an amount running into millions in compensation to the families of those killed by its buses over the years. This included an amount of Rs469,280 decreed by the Sindh High Court resulting from a suit filed on behalf of the three children of a 40 year-old victim named Shujaat Ali. He was an employee of KTC who was killed at the Mehran Depot on 24 August 1996 when he was run over by another employee who had put a bus into reverse by mistake (*Daily Dawn* 1997).

In an agreement between the Sindh Government and the World Bank it was decided to privatize KTC after 20 years of operation. At 5pm on Tuesday, 31 December 1996 all the 100 buses on the road (operating on at least 13 routes, including the far flung areas of Khokhrapar, Malir, Saudabad, New Karachi, Landhi, Baldia Town, Orangi, Korangi, and adjoining localities) were dumped in KTC's seven depots. More than 3400 employees were paid five months' salary in compensation and issued with dismissal letters. Law enforcement personnel were deployed at the depots, the three workshops, and the training institute in order to avert any trouble during the closure. It was estimated that KTC paid Rs1.1 billion to its employees in compensation, while Rs3.75 million was required to pay the benefits of those employees who retired after 1991 (*Daily Dawn* 1996a).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Section 2

The current situation

Introduction

The public transport system in Karachi has suffered from a lack of integrated and comprehensive planning and financing, and has deteriorated over the years (as documented in the preceding 'Historical Review' section of this report), leaving the present problematic situation. This study looks at the prevailing issues relating to public transport, identified through surveys, interviews, public 'forums', etc., from the point of view of the 'sustainable livelihoods' approach towards development (details of this approach are described separately in the 'Methodology' section).

The official population of Karachi, according the Government of Pakistan's 1998 Census, is 9.8 million (although 12 million is accepted by professionals as a more likely figure), and the city generates about 1.7 motorized-vehicle trips per person each day (Qasim 1978). Most trips (70 per cent) are for direct livelihood and schooling purposes or for obtaining daily necessities, the rest being social and recreational trips, or trips that compliment livelihood activities indirectly. Out of the livelihood-seeking trips, approximately 65 per cent consist of public-transport travellers (including the users of taxis and rickshaws, etc.), while about 83 per cent of the travellers are individuals who cannot afford to own any motorized means of their own (ibid.), and whose workplaces are too far away to be reached by walking or bicycling.

These trips, which involve more than 3.4 million people daily, are made out of necessity rather than choice, and by the cheapest mode available, that is the larger buses and mini-buses/coaches. These travellers depend on mass public transport for their very livelihood and have to use whatever is available, which means they often endure hardships which may not have been acceptable to them otherwise (URC 2000b).

Since these are the people who have the greatest stake in the existence of a proper transport system, they are the 'key users' of public transport in this study. According to a URC study 95 per cent of these travellers are travelling out of necessity. The are 3465 large 50-seater buses operated by the private sector,[1] (1469 on routes and 2096 contract carriers), 4973 mini-buses, and 2182 coaches. Out of these, an estimated 3000 or more are operating without route permits. In fact, there are no records at the Regional Transport Authority to prove the validity of the route permits for 4655 buses/mini-buses. According to figures obtained from the Excise and Taxation Dept., there are 15,906 vehicles registered in this category, while 7,165 'stood on road', (further details are given in the next section, Present set-up). The Circular Railway is at present carrying only a negligible proportion of the commuters.

This section describes transport activity as it exists today, then lists the issues as expressed by the key users, categorized in terms of the two vital criteria of 'access' and 'quality'. Investigations into the background and causes of these issues are analysed, while the final synthesis is included in the Recommendations section of the report (in the form of a consolidated listing of potentials and constraints, including references to the preceding 'Historical Review', in order to allow the formulation of future recommendations).

This study is concerned with passenger public transport activity. Cargo/freight transport services, intra-city as well as inter-city, are considered as a traffic issue, and are described separately in the Appendix as one of the significant factors that indirectly constrains passenger transport activity in the city.

The present set-up

The following is a detailed overview of existing public transport activity in Karachi, including information about modes, routes, and the regulatory set-up.

Modes

There is currently little public-sector (government-controlled) involvement in passenger modes, except for the negligible service offered by the local trains (including the Karachi Circular Railway). There are government-run Sindh Road Transport Corporation buses, but they do not contribute significantly. Private-sector transport services consist of a variety of modes, ranging from relatively large buses and minibuses/coaches to smaller vans, Suzuki pick-ups, horse-drawn victorias, taxis, rickshaws, tangas, and also boats operating between the port and certain settlements located across the bay.


2-D

The large modes of transport differ from the rest in that together they offer a general network or system, which allows some level of standardization, and therefore cheaper fares. The layout of the city (resulting from a number of planning decisions taken in the 1960s, see the Historical Review section of this report), is such that approximately 40 per cent of the city's labour force are directly dependent on a working transport system. The severe shortcomings of the existing set-up barely meets the definition of a system, and cause extreme hardship to the low-income commuters.

According to figures given by the Regional Transport Authority (RTA) to the URC, 72 per cent of all commuters using buses travel on mini-buses/coaches. The mini-buses are individually owned and cost around one million rupees. New buses are available for a cash payment of between one and two million rupees (URC1999a). This price includes the chassis, while the bodywork costs from Rs300,000 to Rs1.1 million (URC 2000c), depending on the specifications of the transporters. If the capital is borrowed from a money-lender, the mark-up is up to 110 per cent. The number of instalments and time period of the loan is determined from case to case and agreed between the two parties. Loans are usually only given to people already personally known to the money-lender. There are around 12 money-lenders, and in the last 14 years they have financed 6,350 buses at an approximate cost of 6 billion rupees. On average the purchaser of the bus pays back Rs3 to 4 million in monthly instalments to the money-lender over a period of three to four years. If he defaults on an instalment, the bus is taken away from him and whatever payment he has made is forfeited. The papers of the bus remain in the name of the money-lender. All money-lenders have close links with the police and as such the buses can violate all traffic rules and regulations. These buses provide an extremely cheap mode of transport where the maximum fare is no more than Rs5 to 7 (recent increases are tabulated in the Appendix). Larger buses are far too expensive for the purchasers to buy and operate and their fares would have to be much higher (and perhaps unaffordable to commuters) to break even.

The mini-buses, along with other privately owned buses, have no bus terminals, workshops, or depots. All these activities are performed on and around the road at *ad hoc* facilities where a transport service sector has developed comprising hawkers, places to eat, entertainment, toilets, and other activities that cater to the operators and to the transit population. As a result road and pavement areas in important locations and nodes in Karachi have been encroached upon and used for these facilities — sometimes taking up to 90 per

cent of the road space. These encroachments cause huge traffic jams and large-scale environmental degradation. They are also the site of frequent disputes between residents, shopkeepers, hawkers, and transporters. In spite of these drawbacks, however, the mini-bus operators do serve otherwise inaccessible *katchi abadis* and villages around Karachi, and areas where road conditions are deplorable. It is unlikely that a government agency or private company would ever be able to do this (Hasan 1999).

The mini-bus operators have an organization known as the Minibus Driver's Association which is part of the Transport Ittehad or Transport Unity. This organization lobbies the government constantly to build new transport terminals, workshops, and depots, even offering to invest in their development, but there has been very little response. Meanwhile, the mini-bus owners pay an average of around Rs3000 per month *bhatta* to the police and other agencies so that they can continue to use the roads as depots and workshops and continue to violate traffic rules and regulations. Thus the mini-buses alone pay about Rs26.5 million informally to government agencies per month while the inter-city buses pay an additional Rs13 million or more.

The government owns 10 large plots of land which originally belonged to the KTC and which were used as depots and workshops. After the KTC was wound up, these plots were to be sold to pay off to pay KTC's debts and employees' redundancy. SHEHRI, a citizen's initiative NGO, has gone to court to prevent the sale of these plots so that they may be again used for depots and workshops. A neighbourhood organization in an area where one such plot was located also went to court to prevent its land use being changed. Because of this pressure, the Sindh Governor has decided that these plots will not be sold after all but will be used for transport-related activities.

The major problem in Karachi is how to organize a transport system around a situation where each bus is not only individually owned, but sometimes has more than one owner. In addition, the design of the mini-bus is inappropriate and uncomfortable for the passengers. It is time consuming to get on and off it, and those who have to stand cannot stand upright. No attempts have been made to design the buses more appropriately.

A brief description of each of the existing modes of transport is presented below.

Profile of buses

No. of vehicles (city routes)	1750
No. of vehicles (contract carriages)	1250
Total vehicles	3000
No. of routes operating in the city	40
Vehicles/route	a detailed list, including the alignment/stops of each route is given in Appendix XXX
Fares	lowest Rs2.50, highest Rs4

Models / Capacity		**Acquisition / Financing (Rs)**	
Bedford (90%)	40 to 50 seats	400,000	1,000,000
Issuzu (5%)	50 seats	350,000	400,000
Hino (5%)	50 seats	500,000	700,000

Legal formalities

- Driving license: HTV
- Route permit for three years: Rs400 to Rs650
- Fitness Certificate for six months: costs Rs50, but transporters pay Rs800 to 1000 to ensure that they get the certificate, regardless of the state of the vehicle

Monthly operation

- Fare collected: Rs1500 to 2500 daily
- Fuel cost: Rs900 to 1000 daily

Salaries

Driver	Rs300 to 350 daily
Conductor	Rs250 to 300 daily
Cleaners	Rs1000 per vehicles monthly
Timekeeper	Rs250 to 300 daily

Maintenance

Around Rs3000 per vehicle per month
When the engine needs to be overhauled it costs Rs50,000 to 60,000
Oil change: Oil should be changed once a week, at a cost of Rs1000 per vehicle
Other: Average *bhatta* (bribe) and *challan* (penalties) expenses in a month: Rs1500 per vehicle

Source: Mr Irshad Bukhari, Karachi Transport Ittehad

Driving license:	Rs1200 for three years
Fitness certificate:	Rs1000 for six months
Driver's wages:	Rs50-300 per day
Conductor's wages:	Rs200-250 per day
Insurance:	Rs60 per year

Source: Mr Mustaqeem (Interview No.6)


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دلاری
حفیظ برادرز
شالیمار کوچ

Profile of mini-buses

Models / Capacity	**Financing (Rs)**
Mazda 3500cc (90%) 27 to 32 seats	1,000,000 1,200,000 one-off cash payment or 1,600,000 in instalments
Mazda 3000cc (10%) 27 to 32 seats	800,000 one-off cash payment or 1,200,000 to 1,400,000 in instalments
Legal formalities	
Driving license:	HTV
Fitness certificate:	Rs700
Monthly operation	
Fares collected:	Rs2000-2200 per day
Fuel cost:	Rs600-700 per day
Salaries	
Driver:	Rs300-400 per day
Conductor:	Rs200-250 per day
Timekeeper:	Rs6000 per month
Maintenance	
Oil changes:	Rs800-1200 per week
Parts:	Rs10,000-12,000 (brakes, gears, engine)
Net profit:	Rs10,000-12,000
Broker	
Monthly Wala:	Rs5000 salary per month
Source:	Mujahid Ali (Interview No.19) Shabbir Ahmed (Interview No.21)


BEDFORD

Profile of coaches

Models / Capacity	**Financing (Rs)**
Mazda 3500cc (90%) 27 to 32 seats	1,000,000 to 1,200,000 one-off cash payment or 1,600,000 in instalments
Mazda 3000cc (10%) 27 to 32 seats	800,000 one-off cash payment or 1,200,000 to 1,400,000 in instalments
Legal Formalities	
Driving license:	HIV
Fitness certificate:	Rs700-750
Monthly operation	
Fares collected:	2000-2500 per day
Fuel cost:	800 per day
Salaries	
Driver:	300-350 per day
Conductor:	200-250 per day
Timekeeper:	6000 per month
Maintenance:	
Oil changes:	800-1200 per week
Parts:	10,000-12,000 (brakes, gears, dngine)
Net profit:	10,000-12,000
Broker	
Monthly Wala:	5000 per month
Source:	Mujahid Ali (Interview No.19) Shabbir Ahmed (Interview No.21)

Profile of auto rickshaws

Models / Capacity **Financing (Rs)**

	Name	price (chassis)	price (with body)	paying by instalments
1	Raja (Vespa)	155,000	180,000	350,000
2	KTA	75,000	90,000	180,000
3	Sirmad	80,000	100,000	200,000
4	Bolan Mail	80,000	100,000	200,000
5	Super Star	80,000	100,000	200,000

Legal formalities

Driving license:	LTV Rs100 for one year
Fitness certificate:	Rs500 for six months
Road permit:	Rs300 for three years
Insurance:	Rs25-100 for six months
Token tax:	Rs100 for three months
Meter price:	Rs5000-6000

Monthly operation

Fuel cost:	Rs250 per day
Salaries:	Rs100-150 per day
Maintenance:	Rs1000-1500

Source: Alif Khan (Interview No.23)
Gul Nimroz Khan (Interview No.24)

Profile of taxis

Name Price	(cash) price	Price (paying in Instalments)
GL-1200CC Sunny-1200CC Deluxe 1200CC Deluxe Standard Crolla 72, 74, 76	120,000 to 130,000	180,000 to 200,000

Legal formalities

License:	LTV, Rs100 for one year
Fitness certificate:	Rs600-750 for six months
Fuel cost (gas):	Rs250-300 per day
Gas price:	Rs22-30 per kg
Income:	Rs50-150 per day

Source: Muhammad Sheir (Interview No.22)

Profile of private carriers	
Legal formalities	
Fuel cost:	Rs400 per day
Maintenance:	Rs500-550 per month
Service:	Rs150 per month
Insurance:	Rs350 per month
Source:	Abdul Jalil (Interview No.5)

Profile of boats	
New boat price with engine:	Rs600,000-700,000
Old boat price (40ft):	Rs400,000-450,000
Capacity:	50 passengers
Fare:	Rs5
Sail boat price with engine:	Rs300,000-400,000
Capacity of sail boat:	15 Passengers
Route:	Kemari, Baba Bhat- Bhit Island, Shamsi Paradise
Source: Mr Khuda Ganj	

Routes

The current policy for large modes of transport is that anyone can become a transporter (URC 2000c).

Obtaining a route permit

After obtaining a vehicle, (either a bus or a mini-bus), operators must apply for a route permit following this process:

1. The transporter files an application for a Route Permit with the Regional Transport Authority (RTA). The application must include registration papers, a Fitness Certificate obtained from the Traffic Police, and insurance papers (usually third-party certificates). The RTA drafts two notices inviting comments/objections (in English and Urdu) which the transporter gets published in the two leading newspapers.


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2. After a period of fourteen days, the RTA forwards the applications for approval, together with any comments that have been received, to the Traffic Engineering Bureau (a department of the Karachi Development Authority, the governing body of which is directly controlled by the Chief Secretary of the province, in turn appointed by the federal government) and the Police Superintendents (SPAs) of each district that the prospective route runs through (out of a total of five).

3. The transporter pursues the case with these two offices, then the case is discussed at the next RTA Board Meeting. These meetings are held about once every fortnight, and consist of six members: the deputy inspector general (DIG) of Traffic Police; Director of the Traffic Engineering Bureau (TEB); Chief Engineer of the Karachi Municipal Corporation-KMC; Secretary of the PTA (Provincial Transport Authority); secretary of the RTA, who also serves as the Board Secretary, and the meeting is chaired by the Commissioner, Karachi. The District Magistrates of all the Districts may also attend the meeting.

A permit approved in this way is valid for three years, and the whole process is reported to cost about Rs100,000 for the transporter of a new mini-bus/coach, even though the official RTA fee is only Rs400 (and renewals involve lesser amounts) (URC 1999b). Details of the RTA's functions (including the procedures for taxis and other modes) are given in the Appendix, with interviews with a number of transporters, operators (drivers/conductors), and bodymakers, etc.

The present situation

The existing bus routes have been designed in a haphazard way, often totally ignoring the needs of the citizens. A number of mini-buses and buses with different route numbers operate on the same routes, provoking strong competition between operators. They will therefore speed, overtake, and flout traffic laws to get an edge over each other. They are free to pick up or drop passengers anywhere along their route, sometimes stopping in the centre of the street far from the curb. This can result in accidents and even death. The bus drivers follow their own schedule, often speeding dangerously to meet deadlines or staying in one place for up to 30 minutes waiting for the bus to fill up, causing problems for commuters. Often the drivers, at their own convenience, choose to leave their trip unfinished and turn back midway, causing further problems for travellers. Rationalizing the bus routes according to actual needs of the low-income area is essential to provide access and quality

of transport services. It is also important to have an effective regulatory framework to rein in the opportunistic tendencies of the private sector.

Bus routes were last rationalized in Karachi in 1972. New routes have been added since then, but a rational system, taking into account the way Karachi has spread out, has not been developed. If the routes were rationalized, a more convenient and speedier network that would ease traffic flows, especially through Saddar, could be developed (Hasan 1999).

A lack of supporting facilities

At present local buses and mini-buses terminate at 150 different places in the city; private/KTC buses at 71 locations, mini-buses at 79 locations, and inter-city buses at 48 locations. A survey of these locations revealed that no proper facilities were available for vehicle parking at any of these points. Separate locations for workshops and service stations are also unavailable to the transporters. This forces the bus operators to park their vehicles on the roadside where all kinds of repair and service work is also carried out. The absence of facilities at termini has resulted in 'intermediate' stops in the city. Usually drivers stop their buses at busy shopping centres between five and 30 minutes and the drivers and conductors use this time to find food, tea, toilets, and even to take a bath. Commuters suffer by losing time waiting in the bus or mini-bus.

These intermediate bus stops also attract street hawkers who frequently cause traffic flow problems by covering parts of the road.

The creation of bus terminals

In 1992 the city administration decided to develop terminals for local and inter-city buses across the city to restrict stopping to a few locations and hence reduce traffic congestion and pollution. The Traffic Engineering Bureau of KDA identified and proposed 31 locations where these terminals could be developed. The sites are located in Quaidabad, Malir Extension, Malir Cantt., Landhi, Korangi, Shah Faisal Colony, Airport, gulzar-e-Hijri, Metroville, New Karachi, F.B. Area, Buffer Zone, Nusrat Bhutto Colony, Qasba, Orangi, Baldia, Moach Goth, Saddar, DHA, Shireen Jinnah Colony, Kemari, Lea Market, Tower, West Wharf, and Hawkes Bay.

The city administration has still not implemented this plan. One of the major reasons behind this is the lack of co-ordination among various government agencies. This is exacerbated by the fact that the terminal plans were prepared by the TEB, the KMC is the implementing agency, and the land falls under


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various other agencies including KDA, DHA, Cantonment Boards, and Board of Revenue (BOR).

In some cases it takes years to issue clearance certificates from the relevant authorities, while in others issues relating to the jurisdiction of various authorities limit progress.

The other factor delaying the project is said to be the illegal settlements on various proposed sites. Despite getting physical possession of the plots located in Clifton, Qasba, and Malir Extension, the KMC is unable to execute the work because people are living on the sites. The plots in Clifton, Malir Extension, Korangi, and Qasba township are partially or fully encroached upon.

A similar situation persists for inter-city bus terminals. The Sindh Government had earmarked an 18-acre piece of land in sector 5-B in scheme 33. This land was subsequently found to have been allotted to an 'influential individual' thereby delaying the implementation of the plan. After sustained efforts from the TEB, in June 1995 the government agreed to allot a new 45-acre site for the inter-city bus terminal measuring at the Super Highway in Scheme 33. The allotment was not made by the Sindh Board of Revenue, however, and physical possession has not been handed over to the TEB.

Most of the locations proposed by the TEB were found to be feasible as terminals, but according to the transporters proposed sites at Lea Market, Tower, and Shireen Jinnah Colony are not feasible as there is not enough parking space, and new sites will have to be found.

There is also some dispute over just what a 'terminal' is. The KMC officials describe a bus terminal as a boundary wall around an open space with adequate parking space. The KMC constructed boundary walls on three such plots in Korangi Township Korangi Industrial area and Shah Latif Township. For many urban planners, however, a terminal should have not only parking capacity but also facilities for transport workers, shops for spare parts, and servicing/repairing facilities.

Detailed lists of all the present bus and minibus/coach routes are given in the Appendix (maps are available from the URC), while a map showing the density of these routes on the roads of Karachi is given on the next page.

The Karachi Circular Railway

The Karachi Circular Railway was planned as one of the alternative modes of public transport for the urban poor. A success in the beginning, the KCR has since declined and is no longer much use to commuters. This section briefly outlined the background of this decline of a useful alternative mode of transport.

The Karachi Circular Railway (KCR), which ceased operation on 15 December 1999, was designed by Marz Redell Vatten Pakistan (MRV), a Swedish–British consortium of consultants, and built in 1961 to join the main train line at tower, near the port. The railway line used to pass through Karachi Port Trust, Shah Latif Site, Mangopir, Orangi, Azimabad, North Nazimabad, Liaquatabad, Gillani Urdu College, and Landhi. It carried thousands of commuters punctually every half an hour, charging only 25 paisas for its fast and reliable service.

It used to cover an stretch of 23km with 14 up and 14 down trips. In 1969 the railway planners initially aimed to use this line as a by-pass for freight traffic, and accordingly they built a big goods train yard at Wazir Mansion. Initially about 12 trains ran. The fare for a one-way trip was 15 paisa, which was raised to 25 paisa in 1980 and at the time of its closure it was Rs2.

The KCR provided the main means of transport to people living in Liaquatabad, Nazimadsad, and North Karachi on one side and Malir, Korangi, and Landhi on the other. These areas have many pockets of poor people. During its first 15 years of operation, nearly 300,000 commuters travelled on the trains every day. It was very popular with the urban poor, but also very convenient for middle- and lower-middle-income urbanites. According to railway figures each bogie (carriage) has a seating capacity of 88 and can accommodate around 224 standing passengers. It is perceived to be much safer and more spacious than other transport options, such as buses and coaches.

Decline of KCR

The decline in KCR services was a result of the failure to tackle infrastructure, managerial, and social issues. The key problems included:

- The lack of proper maintenance of the systems, as no one replaced worn-out bogies, maintained tracks, or improved and maintained railway stations.

- Longer waiting times at level crossing and during peak hours slowed down the system horrendously. Thre were 17 or 18 level crossings along the routes 23km, so the train used to take over an hour to travel from one station to the next.

- Too few passengers to generates enough revenue to cover the costs of the service. At the time of suspension, the KCR was running the service with only two trains and the number of passengers reduced from thousands to hundreds. In these conditions it was bringing in only Rs70,000 to 80,000 per annum while expense were to the order of Rs500,000 per annum.

- Access to the railway stations was difficult and time consuming.. Links were not provided between the stations and the other modes of transport, so people had to travel long distances to reach the station.

- The timing of the buses/mini-buses and KCR were not synchronized, which lengthened the time it took for people to reach their destination.

- The land on either side of the track was used for residential purposes, which meant the trains had to slow down. Because the residences were so close to the track, safety hazards were also increased.

- It is believed that when the circular railway network functioned, prostitution and drug trafficking was rampant along its route. This perception may have deterred many potential customers.

- The lack of proper facilities at the railway station and on the train deterred customers, as there were no catering services, no provision of clean and cool water, and no provision of hygienic toilets.

- There were frequent attacks on the railways by criminals. It is reported that the train was stoned daily at Orangi, Liaquatabad, and Gillani stations. Some respondents also suspected that this could be an activity of land mafia.

- It is believed that a mafia runs the road transport sector, and that they have bribed the relevant officials to cause the railway to fail so that they would have a monopoliy on transport.

What is happening now?
Since the suspension of service there has been a lot of pressure to reopen it from many groups, such as civic societies and former railway users. Now a committee has been set-up by the chief secretary transport to consider its early revitalization. Presently four trains are running on the routes below. The routes cover only two ends of the city. I thought it had been suspended!

Circular Railway Routes

Directions and time			Names of trains	
Up time	KCR-1 4:35pm	KM-1 3:15pm	KM-3 5:15pm	KD-1 1:55pm
Down time	KCR-2 5:35am	MK-2 6:45am	MK-4 7:35am	DK-2 4:10am

Organizational set up

The partners in the delivery of urban public transport can be classified under three broad categories:

- users
- operators
- regulators

The administration of public transport activities in Karachi involves many different groups of actors. For an efficiently operating system these actors must work together, but this is rarely the case and frequently they are more of a hindrance to each other than a help.

The regulating agencies

Many of the actors consulted during the URC survey suggested that a change in the regulations regarding transport and public transport facilities is needed for improvements to occur. In order for this to be a worthwhile process, however, the new regulations must not only be relevant but also effectively enforced. The creation and enforcement of traffic regulation is the job of the

regulating agencies. These include the traffic police, governmental organizations and, to some extent, private sector organizations.

The traffic police

The traffic police in Karachi have a very poor record. They are often unprofessional and during routine encounters on the street prove themselves to be uneducated and ill mannered. They are commonly known to be corrupt and will extract bribes at every opportunity to supplement their poor pay. They ignore bus drivers breaking the rules if they are paid *bhatta* regularly (an average of Rs3000 per month for mini-buses and coaches). This force must be reformed if better facilities for public transport are to be provided.

Structure of traffic police

Designations	No.
Deputy Inspector General (DIG)	1
Additional Deputy Inspector General (ADIG)	1
Superintendent of Police (SPs)	5
Deputy Superintendent of Police (DSPs)	10
Inspectors	82
Sub-Inspectors	260
Assistant Sub-inspectors (ASI)	70
Head Constable	305
Constable	1800

The removal of encroachments, placing of proper traffic signalling systems, and enforcement of traffic regulations would ensure uninterrupted traffic flow on major city arteries. During the URC survey a large number of citizens and transporters suggested changes in existing traffic regulations. The government should form a committee of experts with participation of citizens and transporters to review these regulations and propose changes. Corruption is perceived to be the main problem affecting the enforcement of law.

The public sector organizations

As Karachi is a large metropolitan city, many public sector organizations have an interest in and effect on the performance of the public transport system. The sheer number of organizations involved has made inter-organizational co-ordination a real issue.


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Organizations dealing directly in transport activity and infrastructure

1 Excise and Taxation
2 Karachi Development Authority
3 Karachi Metropolitan Corporation
4 Provincial Transport Authority
5 Regional Transport Authority
6 Secretary Transport
7 Traffic Engineering Bureau

Organizations dealing indirectly with transport and infrastructure

1 Governor of the Province
2 Chief Minister of the province
3 Provincial ministries of:
4 Communication and Works
5 Housing and Town Planning
6 Industries
7 Labour
8 Law and Parliamentary Affairs Local Government and Rural Development Katchi Abadis
9 Planning and Development
10 Revenue and Land Utilisation
11 Science and Technology Transport
12 Relevant government departments and offices
13 Chief Secretary
14 Executive Policy Action Co-ordinator Organization (EXAPACO)
15 Commissioner
16 Additional Commissioner
17 Assistant Commissioner General
18 Deputy Commissioners of the Districts
19 Board of Revenue
20 Land Utilization

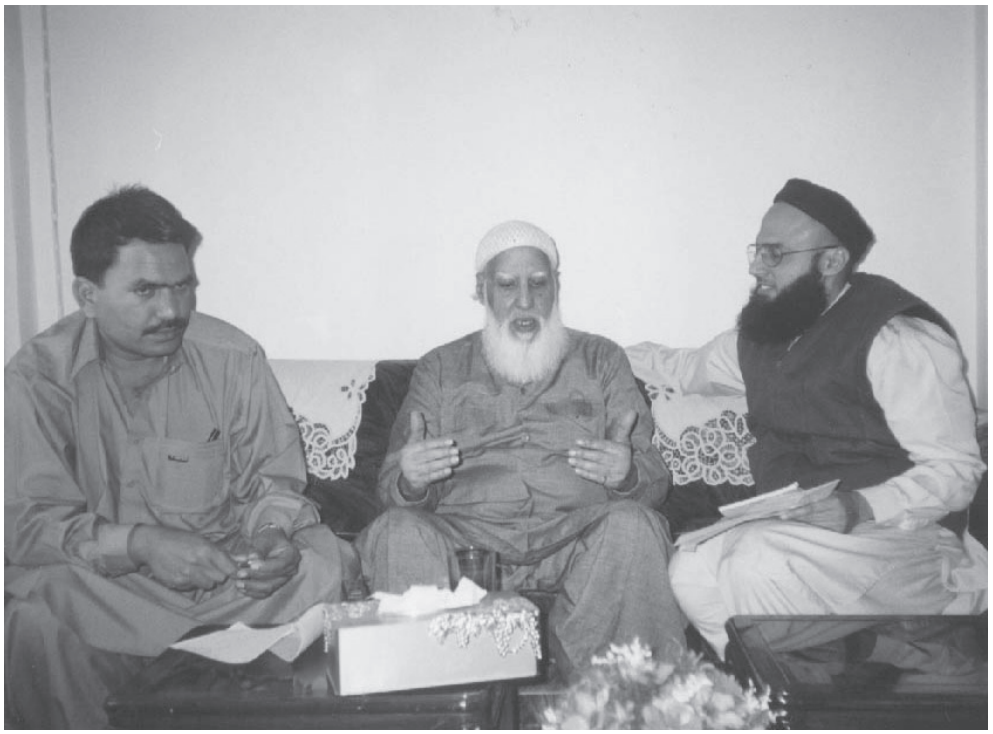
21 Registration and Evacuee Property (RS & EP)
22 Recoveries and Settlement
23 Taluka Mukhtiarkar - Karachi Division
24 Communication and Works Department
25 Excise and Taxation
26 Co-operative societies
27 Home Department
28 Sindh Secretariat
29 Home Secretary
30 Additional Secretary I
31 Judicial - I
32 Law Enforcement (LE - I)
33 Law Enforcement (LE - II)
34 Army
35 Inspector General of Police Sindh
36 Housing and Town Planning Department
37 Karachi Development Authority
38 Layari Development Authority
39 Malir Development Authority
40 Industries, Commerce and Mineral Development Department
41 Information Department
42 Labor and Transport Department
43 Law Department
44 Local Government Public Health Engineering & Rural Development
45 Directory General Rural Development
46 Secretary Local Government Board
47 Sindh Katchi Abadi Authority (SKAA)
48 Planning and Development
49 Population Welfare Department
50 Directorate of Social Welfare
51 Women Development Department

Private sector associations and organizations

It is noteworthy that many private sector providers have been organized. They not only act together as a powerful bargaining force but in case of riots in the city, they can use their 'muscle' to defend their interests. Any policy derived without the representation of such organization will be hard to enforce.

Karachi Transport Owner's Federation

1.	All Karachi Rickshaw Taxi Owner's Association		
2.	Mr. Raja Rafiq	5676902	
3.	Suzuki Owner's Association		
4.	Mr. Sabir Shah	5676902	
5.	United Yellowcab Owner's Association		
6.	Mr. Mustafa Jamal	6628262	
7.	Yellow Cab/Coaches Owner's Association		
8.	Mr. Raja Rafiq	5676902	
9.	Karachi Minibus Owner's Association		
10.	Mr. Yaqoob Janjua	0321/4322090	Res. 6318453
11.	A/C. Bus Owner's Association		
12.	Mr. Raja Rafiq	5676902	
13.	Sindh Truck/ Trailor Owner's Association		
14.	Al- Haaj Malok Ahmed Khan	7735812/773635	Res. 6344718
15.	Water Tanker Owner's Association		
16.	Syed Mohammad Shah Res.	5890724	
17.	Rati Bairi Truck Owner's Association		
18.	Mr. Ayub Khan	5676902	
19.	Karachi Bus Owner's Association (Forward Block)		
20.	Moulana Ashraf	Res. 6627873	
21.	Mr. Iqbal	4936790	
22.	Pakistan Bus Owner's Association		
23.	Mr. Raja Rafiq	5676902	
24.	Private Bus Owner's Association		
25.	Mr. Atiq Qureshi	Res. 5043180	
26.	Mr. Kaleem Pasha	Res. 5048520	



List of transporters/associations

1. Karachi Bus Owner's Association

1. Ch. Mohammad Ismail	Off. 7722687/7765878 . Res. 7210806
2. Syed Irshad Hussain Shah	Res. 6316660

2. Muslim Mini-bus Association

Mr Mohammad Tehmas Malik	Off. 7722687/7765878 Res. 4521741. Off. 45794396
Mr Tawab Khan	
Syed Mehmood	
Mr Hashim Khan	Off. 6318453 Res. 63423931

3. Karachi Coach Owner's Association

Malik Khalid Mussain Awan	Off. 6911229. Res. 6911927 6981994- 6913229
Haji Amin Jan	Res. 5015924/5014066 9321/7270588

4. Reti Bairi Truck Owner's Association

Mr Allauddin Shah	President

5. Karachi Mini-bus Association

Haji Nasir	President
Haji Amin Jan	5015924/5014066 321/7270588

6. Sindh Balochistan Bus Owner's Association

Mian Khan Rind	President	747896

7. Rickshaw Taxi Owner's Association

Mr Muneer Khan	President

8. Gadvani Goods Owner's Association

Mr Saleem Sulemani

9. United Yellow Cabs

Abdul Aziz

10. Mutehada Mini-bus Owner's Association
Syed Badshah President Res. 6693657

11. Rickshaw Taxis and Mini-bus Association
Raja Rafiwue President Off. 5676902
Mr Yaqoob Janjua 4580711/6310373

12. Karachi East Bus Owner's Association
Mr Attiq Qureshi Res. 5043180
Mr Kaleem Pasha Res. 5048520

13. Pakistan Yellow Cab Karachi Federation
Mr Waqar Ahmed Khan 4554899

14. Karachi Bus Owner's Association (Forward Block)
Mr Iqbal Ahmed Off. 4936790 Res. 6911805

15. Karachi Transport Federation
Mr. Saleem Bungush 7781029/7783156.7781030
Mr. Nazir Ahmed Utmazai 0321/7293038

16. Karachi Goods Carrier's Association
Chairman 7524536/7524537/7514563

NGOs dealing with transport issues/research

Non-governmental organizations have started to realize that urban transport is a key issue effecting the livelihoods of the poor. Some of the key NGOs are listed below:

1 All Pakistan Road User's Association (AROUP)
2 Chartered Institute of Pakistan (CIT)
3 Urban Resource Centre (URC)
4 Citizen Police Liaison Committee (CPLC)
5 Traffic Management Programme

As on 30th June, 1999, statement issued by Motor Registration Wing, Excise and Taxation, Karachi, and nos. for November, 1999 given by the Karachi Bus Owners Association

Issues of access and quality

Interviews with more than 100 users living in eight different low-income settlements in Karachi (in five different locations, four peripheral and one central) form the basis of this section, while certain other individual passenger-related incidents have also been used for reference purposes. More details about the interviews can be found in the section on methodology.

The eight settlements visited and their *approximate* locations are:

1. Ghaziabad	(Orangi Town)	(west)
2. Siddiq Goth/Nasri Colony	(New Karachi)	(north)
3. Dhani Bakhsh Goth	(Gulistan-e-Jauhar)	(east)
4. Pehlwan Goth	(Gulistan-e-Jauhar)	(east)
5. Awami Colony	(Korangi)	(south-east)
6. Zia Colony	(Korangi)	(south)
7. Shireen Jinnah Colony	(Clifton)	(south)
8. Nawa Lane	(Lyari)	(central)

One of the core assumptions established during the initial project identification stage, that low-income users of public transport have the greatest stake in this crucial activity, has been confirmed by these interviews. Respondents' income depends directly on their ability to reach the areas where most jobs are located, mainly the city centre, from their homes, mainly squatter settlements on the boundaries of the city (as explained earlier in the History section). Excessive time and money is spent reaching work places, and mental tension, physical discomfort, and stress are common. The lack of access to and poor quality of the public transport further reduce the opportunities available to the poor. The opportunity costs of the resources spent on public transport, both financial and social, is huge. The same resources could be spent on other more productive activities like spending time with the family, primary education, and income-generating activities.

A number of issues that affect the assets of the urban poor directly or indirectly have been identified, grouped broadly under 'access' and 'quality'. Adjustments in structures and processes to address these issues will improve the livelihoods of the urban poor. The classification is not rigid and many of the access issues affect quality and vice-versa. The gender-related problems have

been classified separately, with their own access/quality issues. Only brief descriptions are presented here, while an analysis into their root causes follows.

Access
- the peak hour crisis
- limited hours of operation
- absence of schedule
- inadequate coverage
- high fares
- lengthy duration of travel

Quality
- safety hazards
- missing bus stops
- pollution
- ill-maintained vehicle exteriors
- in the vehicles

Minority group issues
In this category are a number of issues important to women, children, and elderly.

Access

Peak-hour crisis
Passengers have to travel hanging on the doors or sitting on the roof-tops of public transport vehicles during peak hours. More than sixty different problems were recorded during interviews. The interviewees complained about:

- travelling while standing throughout the duration of travel in great heat;
- hanging partly or completely outside the vehicle;
- travelling in the ladies' section, which is embarrassing for both men and women;
- having to sit on roof-tops (with the obvious fears);
- getting to work late because of the unreliable service;
- been fired because of regular lateness;
- the non-availability of seats and the bad condition of the seats. In some cases the passenger's dresses were torn or smeared with dirt and/or oil;

- pick-pocketing;
- having to walk to other stops in the hope of securing seats;
- clothes and shoes getting soiled and wrinkled;
- suffocating from smoke and lack of fresh air;
- people spitting *niswar* or *pan* (chewing tobacco);
- losing their balance or even falling over while standing in the fast-moving vehicles; and
- speeding and dangerous driving.

The following are excerpts from some of the interviews (translated from Urdu).

What people say about peak-hour problems

'By getting onto the roof one is spared the suffocation inside'.[1]

'Every day I have to travel dangling from the bus, there is space only for one foot….because of the rush inside the bus there is a lot of pushing and shoving and the passengers end-up getting into quarrels with each other…..the conductor keeps on loading the people in his greed for money……while stepping out after traveling in a `Mazda' one finds that ones clothes have become soiled'.[2]

'…men climb on the roof-tops, often putting their feet onto our shoulders as well."[3]

'Things are often stolen from pockets during the rush… when we come out of the bus, our appearance is so appalling that it looks as if we have been pulling at each others' hair".[4]

'there is a severe rush in the buses, the passengers are stuffed like goats and sheep into the buses….a person becomes so exhausted that he feels as if he has just returned from plowing a field".[5]

'once I was travelling through Saddar and there was a traffic jam, it became difficult to breath in the extreme heat'.[6]

'since I live within an industrial area, the vehicles arrive here already filled with passengers arriving from other residential ares, therefore the local residents do not get a chance to even stand in these vehicles… I am afraid to travel on the roofs of the vehicles'.[7]

Limited hours of operation

Small-scale enterprise is very active in public transport. Many owners only own one vehicle or even share the ownership. Purchase of the vehicles is financed through the informal sector, and the owner's profit needs to serve the debt and meet the operation and maintenance expenses. Competition is cut-throat and unregulated. In many cases the vehicles are effectively sub-contracted to the driver; he pays a certain amount to the owner daily, and the remaining income is shared between the driver and the conductor. The tendency is to cut costs and maximize profit on each trip. There is no room to run 'under-loaded' vehicles at any time.

The private sector does not have the capacity to meet the peak demand rationally. More frequent shuttle services during peak hours connecting the main routes may be a simple solution.

In many cases the bus will not leave until it is completely full and then the service will terminate without notice once the bus is empty. While the vehicles can be bumper to bumper during peak hours, passengers have difficulty in finding a bus and travelling during non-peak hours.

Almost half of the interviewees complained that transport services were not available at all after 9pm (this time varies, depending on the remoteness and law and order situation of each locality). Transport services are not available during emergencies or for a special occasion such as dropping or collecting relatives from the airport or railway station, weddings, patients going to hospital, etc. The concerns expressed included drivers turning around half-way through their route in the early and late hours. In case of emergencies and to attend family occasions in the evening, 22% reported that they often have to use taxis, 20% said they use rickshaws on such occasions, while 3% people said they hire Suzuki pick-ups.

What people say about limited hour problems

'In our locality, the vehicles stop coming after 9pm, and instead turn back from the earlier block. In fact often if the 'Gulistan' coach happens to be returning empty they change the name-plate of the vehicle and take it on a route which they think will yield more profit for them. Many of the operators do this, causing tremendous inconvenience to the public".[8]

'…about one year ago my father suddenly fell ill, and [in the absence of any transport in late hours] we had to call an ambulance which came after an hour, and only then were we able to go the hospital'.[9]

'in emergency situations it is even difficult to catch a taxi after 9pm'.[10]

Absence of schedules

Passengers cannot rely on the transport service. Daily timetables or even lists of the number of services available on a given route are non-existent. Passengers have to rely on verbal information and guess when planning their trips. Approximately 27.7 per cent of people said that they often have to wait fifteen to thirty minutes at bus-stops without knowing when the bus will arrive. The result is long waits and anxiety for the urban poor. The problems caused as a result of the non-existence of a schedule include:

- Vehicles race each other to reach the bus-stops first to pick-up all the waiting passengers. Informally a 'token' system was introduced to prevent road race. This systems is based on issuing tokens and timekeepers being posted at different bus stops. The drivers manage to find loopholes by driving slow until the last stop and then racing to get the next token first. This behavior is in line with the profit maximizing on each trip.
- Drivers wait at bus-stops until the next vehicle has also reached the stop in order board all the waiting passengers, leaving no one for the next bus.
- Delays as a result of engine/mechanical break-downs leave passengers helpless as they do not know when the next bus will arrive. There are no formal vehicle recovery systems.
- Long delays caused by the random checking of documents on route also effect bus timings.
- The vehicles sometimes skip stops, if the conductor decides that there will be more passengers at the next stop, leaving the smaller number to the next bus.

What people say about lack of schedules

(Two young boys said) 'we have to wait with our books (the books can be very heavy for young children) for a long time at the bus stop every day'.[11]

'on every route there are some stops at which the drivers stop the vehicles for long duration, at that time even if the passengers, out of an emergency or any other concern, request the driver to move on, they do not move until they see the next vehicle of their route approaching'.[12]

A young girl said 'the place where our bus-stop is located is a very deserted area, old people have no choice but to sit down on the ground while waiting for the bus… if it were not for the problems of transport and the time wasted, … I would have been able to give more time to my studies, and more time to my household chores'.[13]

Inadequate coverage

Many low-income settlements are not served by any routes at all, while for others the nearest available stop is a long walk away. The availability of connections is limited, causing the users to take long out-of-the-way trips to catch a vehicle which can take them to their final destination.

Approximately 98 per cent of respondents reported that it took them on average up to thirty minutes to walk to the nearest bus stop. Suggestions were also made about the need for rationalization of the routes to ensure proper coverage to all localities, and the standardization of distances between bus-stops.

What people say about inadequate coverage

'a survey of the routes should be conducted, and modifications should be made in the present network in accordance to the needs of all the different localities'.

'the distance between two bus-stops should be fixed at one kilometre.'

"I have to change vehicles three times to reach the airport from my home.'[14]

'… most of our time is spent travelling or walking.'[15]

'the bus sometimes stops a long distance before the college and other times long after the college.'[16]

High fares

The operators claim that the fares are too low for them to provide a proper service. They also claim that profit margin is so low that they are barely surviving in the business. Regardless of whether the operators are making money or not, the amount spent by the poor on transport is a substantial burden on their daily/monthly budgets. An increase in fares is predictable. With annual national budget announcements, the oil prices go up and with it the fares for public transport. These disproportionate increases in fares effect the livelihoods of urban poor. Figure 2.2 shows spending on routine work-related travelling, excluding all other kinds of travelling, such as social gatherings or trips to the doctor. Most of the poor spend 10 per cent or more of their monthly earnings on their work-related transport. Overall transport expenses could be much higher. The monthly incomes of most of the people interviewed were between Rs1500 and Rs6000 (see Figure 2.1). Most of the students were spending at least 30 per cent of their monthly pocket money on transport costs, while some spend more than 60 per cent (see the table below).

Example of student's expenditure on transport

Pocket Money Monthly (Rs)	Monthly expense on transport (Rs)	Percentage of expense on transport
250	175	70.0
250	75	30.0
375	250	66.6
500	175	35.0
375	150	40.0
500	175	35.0
500	250	50.0

What people say about high fares

'in our home six people use public transport daily, the total monthly expenditure on transport is therefore about Rs2500 to 3000, whereas the income of the household is Rs12,000.'[17]

"my monthly income is Rs.7200, while my transport expenditure is Rs.25 daily, and monthly it comes to Rs.800".[18]

"I spend Rs20 on transportation every day, about Rs 600 a month, whereas the 'Conveyance Allowance' that I get is Rs96.'[19]

'If anyone should demand to see the fare list, he is immediately off-loaded from the bus', reports Khurram of Zia Colony.[20]

Figure 2.1: Distribution of monthly income

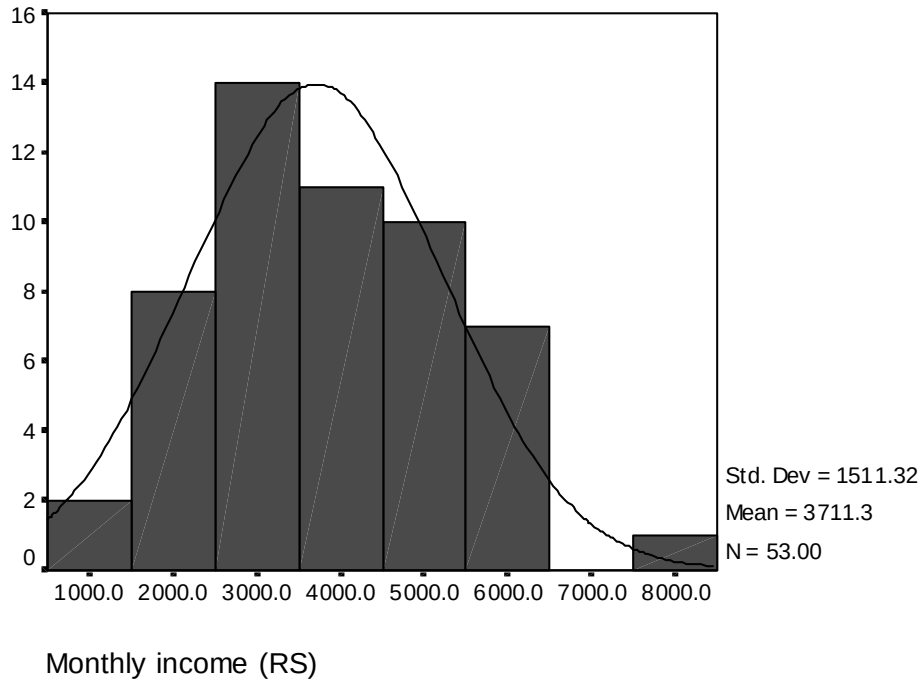


Figure 2.2: Monthly expenses on transport

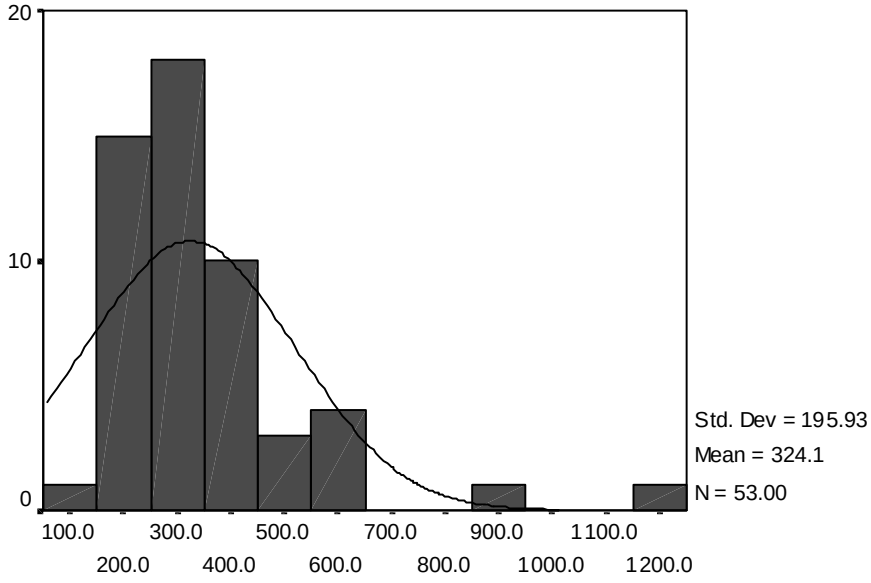
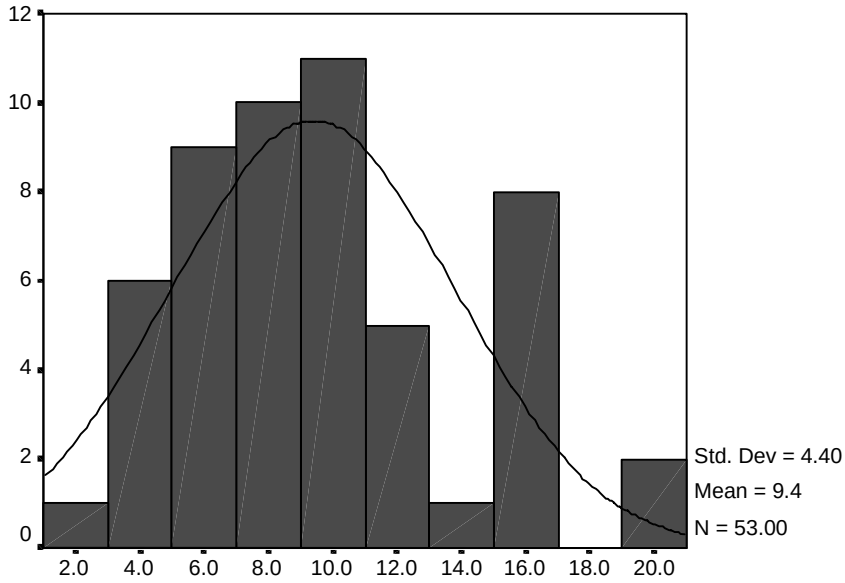


Figure 2.3: Percentage of monthy income spent on transport



2.1.6 Lengthy duration of travel

Long distances and lengthy travelling times are the two fundamental problems of public transport activity in Karachi. The decision taken in the 1960s to locate low-income settlements in the outskirts of the city, and the failure of the accompanying re-location of blue-collar job-markets, has created this perennial paradox. Originally the vision was to have a 'grand' mass-transit system to allow the near-perfect segregation of a 'beautiful' city-centre and white-collar residential areas on one hand, and industries and blue-collar settlements on the other. In practice the majority of blue-collar jobs remained near the city centre, whereas the government had already shifted the low-income residents by force to the outskirts. The passage of time has revealed that the city, nor the country for that matter, has never had the financial or technical/manpower resources to sustain that 'grand' vision. The increasly limited resources over the years have made the repercussions of that decision virtually irreversible, trapping the city into a vicious cycle of transport-triggered degradation as it attempts to desperately join two irreconcilable ends.

A number of other factors combine to further accentuate this issue, such as:

- non-rationalized route-layouts and connections;
- neglected traffic bottle-necks;
- frequent stoppage and harassment by traffic police on false pretext of document checking (allegedly, one way to demand bribe);
- illegal/unauthorized sub-division of routes increasing overall travel time for the passengers but maximizing the profit from each route;
- deliberately pre-planned lengthy breaks in journeys at certain stops, especially by mini-bus/coach operators in order to force the passengers to board afresh onto duplicate vehicles, thereby creating an excuse for extracting additional fares from the passengers; and
- long waiting times at major stops until the next bus arrives, in order to attract the maximum number of passengers.

Approximately 65 per cent of respondents reported that they spent a total time of more than two hours every day going to work and coming back, while 13 per cent spent more than four hours daily, and 1 per cent spent five hours on their roundtrip.

What people say about lengthy travel duration

'people who travel long distances in the vehicles undergo tremendous strain'[21]

'it takes two to three hours just to get to Saddar from Korangi.'[22]

(A woman said) 'because of having to spend four hours everyday in travelling, I am not able give proper time to my children…and my home is being neglected'.[23]

'It takes me two-and-a-half hours each way to go to my work-place.'[24]

(A woman said) 'because of the long distances, many of the passengers fall asleep in the vehicles, I myself also have fallen asleep many times, the conductor recognizes me and so he wakes me up when the bus reaches my stop.'[25]

'whenever there is a traffic jam it makes me very angry, it is at such moments that I feel one should have a vehicle of one's own.'[26]

'because of the rush and smoke inside the vehicles, I have to change the shirt of my uniform every day, the clothes get all wrinkled-up….I reach my college after a journey of about 35 to 40 minutes, at the end of the journey I have a headache, my mind looses its freshness, I feel a strange restlessness during classes, and I keep sensing the smell of oil in my breath.'[27]

User's daily walking time, one way from house to bus stop A	
Time (in minutes)	%
0-15	67.92
16-30	30.19
30-45	1.89

User's daily waiting time, one way at bus stop B	
Time (in minutes)	%
0-15	68.75
16-30	25.00
31-45	2.09
46-75	4.17

User's daily time spent in the public transport vehicles (one way) – C	
Time (in minutes)	%
0-15	10.77
16-30	30.77
31-45	24.61
46-60	20.00
61-130	13.85

User's daily total travelling time (from house to work/study)	
Time in minutes	%
0-15	1.89
16-30	5.66
31-45	15.1
46-60	20.75
61-75	20.76
76-90	13.2
91-150	22.64

Quality

Safety hazards

In the 'Quality' category, the foremost issue is the numerous safety hazards that travellers have to put up with. Speeding and dangerous over-taking and manoeuvring of vehicles is a cause of many accidents, while the poor mechanical maintenance of vehicles also threatens the safety of the passengers (worn-out brakes, etc.). Many people are injured or killed while hanging off doorways and ladders, or travelling on rooftops. The situation is particularly dangerous for children, older people, and disabled people. The unsafe manner in which passengers are picked-up and dropped is another frequent cause of injuries, accidents, and even deaths, as passengers have to run into the road to get on and off the bus. On this issue seventy-three different types of complaints and comments were recorded.

What people say about safety hazards

'Some of the drivers appear to be driving under the influence of various intoxicants, their eyes are red, and when I see the colour of their eyes, it seems as if they will soon hit another vehicle....sometimes their eyes are drooping with tiredness, this is also another reason for the numerous accidents which happen.'[28]

'When the vehicles race with one another, the drivers run them at such speeds that most of the ladies who happen to be standing fall this way or that, and end up getting hurt.'[29]

'The buses over-speed, and the drivers make bets with each another.'[30]

'The drivers try to overtake dangerously, and if anyone should happen to object then they threaten to fight, or they will stop the vehicle in the middle of the road and tell all the passengers to get off…upon reaching the wide roads of the industrial area, the drivers hand over the driving of the vehicles to the conductors, so that they can also become future drivers. About a year ago a serious accident occurred in similar circumstances, and 23 precious lives were lost.'[31]

.A 'single' driver is a driver who drives from 8 o'clock in the morning to 8 o'clock at night, while a 'full-time' driver is one who drives from 6 o'clock in the morning to 12 midnight, exchanging his duty with another full-time driver every other day.'[32]

'Due to speeding, a few days ago my nephew was involved in an accident, and both the poor youth's legs have been broken.'[33]

'Once a Mazda (mini-bus) hit me and my leg was broken in three places. I remained in the hospital for two months and a rod had to be installed inside my leg.'[34]

'Once I was traveling in the No.20 bus when suddenly because of overspeeding it went out of control and ran onto the green belt in the middle of the road, and as a result I had to get five stitches just above my eye.'[35]

'I was once standing at the Laloo-khet stop, a Mazda came and hit me from behind, I was hurt severely, the driver escaped…'[36]

'About five or six months ago, the U-9 bus had a collision with another bus, and as a result four people died on the spot, including the driver, and another 18-20 people were injured, including my twelve-year-old daughter, who received stitches on her head and nose.'[37]

'Once the P-1 fell over the bridge at Natha-Khan because it was over-speeding, in which some people died while others were injured, after this incident I feel afraid of the P-1.'[38]

Missing bus-stops

Bus-stops have never been built at many of the places where the buses stop and passengers wait to board them. Most of the bus-stops which do exist are improperly located, designed and/or built, and poorly maintained: they are dirty, not properly shaded, the seats/benches are inadequate, and drinking water arrangements are absent. Most of the bus-stops are encroached by vendors, tramps, and drug-addicts. The absence of proper terminals at important stops or junction points, with loading/unloading platforms, shaded waiting/sitting areas, time-keepers' booths, transit facilities and refreshments, transporters' facilities, depots, and workshops is a cause of great inconvenience. Taxis and auto-rickshaws, and even large intra-city and inter-city vehicles are often parked or are being repaired in streets and lanes, constricting traffic and disturbing residents, and sometimes even blocking the entire road, posing serious consequences for emergency situations.

Interviewees had sixty-five different concerns about bus-stops.

What people say about bus-stops

'some of the bus-stops are officially designated while others have been created by the people, the passengers tend to make the driver stop right in front of their houses.'[39]

'because the bus-stops are not properly marked, the passengers have to search for them.'[40]

'When it rains the men take refuge in the nearby tea-shack, but that is not a suitable place for women to enter.'[41]

'The location of the bus-stop moves forwards and backwards with the movement of the sun, when the sun is directly in front then the people move to one side or the other.'[42]

'The Natha Khan stop has virtually been taken over by the beggars and vendors.'[43]

'There are no fixed stops, the driver stops wherever he sees the people standing together, the off-loading passengers also call-out and get the vehicle stopped at their destinations.'[44]

'Often there is no indication to show that a place is supposed to be a bus-stop, usually people stop the bus by shouting or gesturing.'[45]

'There is so much dust and garbage at the bus stops, forget about any provision of shade or seats.'[46]

'It is not even possible to think of having any facilities at bus-stops.'[47]

'Gutter (sewerage) water flows across the bus-stop.'[48]

Pollution

There are three sources of noise disturbance and pollution:

- pressure horns; not only the volume but the type of noise is also a disturbance, e.g. the imitation of a screaming child;
- engine and muffler noises; and
- calling-out for routes and stops by the conductors. This includes high-pitched

whistling, shouting, and banging on the sides of vehicles to indicate how soon the vehicle intends to be on its way – a means of attracting prospective passengers when more than one vehicle happens to reach a stop at the same time.

The exhaust fumes of the usually poorly maintained public transport vehicles, including buses, mini-buses, taxis, rickshaws, as well as heavy freight vehicles, is a major source of the high air pollution levels in the city. The following excerpts taken from the interviews illustrate the impact on passengers:

What people say about pollution

'Because of the pollution our clothes get soiled more quickly, and energy is consumed in washing them, along with money, in the form of soap and water, and also time…because of the increased air pollution, the residents of our area are frequently inflicted by colds, flu, and coughing.'[49]

'Because of the rush and smoke inside the vehicles, I have to change the shirt of my uniform every day, the clothes get all wrinkled-up….I reach my college after a journey of about 35 to 40 minutes, at the end of the journey I have a headache, my mind looses its freshness, I feel a strange restlessness during classes, and I keep sensing the smell of oil in my breath…. because of the continuous use of pressure horns the mental strain on the people increases, people are developing a habit of speaking loudly.' [50]

'The sudden blast of a pressure horn startles people and an accident can occur, and pedestrians and motorcycle riders are especially vulnerable to accidents.' [51]

'People's minds are getting affected by the loud noise of the pressure horns.'[52]

'The pressure horns installed are very powerful, and the passengers get frightened and startled.'[53]

'The horns should have uniform sounds, instead the transporters install ones which sound like a dog or like a baby crying; they have a revolting effect on the listeners.'[54]

'Pressure horns should not be present in public transport vehicles, from the scientific point of view, this increases noise pollution…some days back a new type of a pressure horn appeared in the market, it sounds like the wailing of a baby, many womens' eyes fill with tears when they hear this horn.'[55]

... continued

'When the vehicles are in the midst of a race, the drivers pass signals to each other with the sounds of the horns, with the help of which the other driver finds out about the next move of the first one.'[56]

'The noise of the engines of the vehicles and the horns are the enemies of human health.'[57]

'Daily exposure to such high levels of noise makes one irritable.'[58]

Ill-maintained vehicle exteriors

Most of the private buses are more than twenty-five years old, while the mini-buses are also in the ten to twenty-year age bracket, and many have poorly maintained body-work. People are reportedly injured or their clothes torn while boarding or stepping down from the vehicles.

The lack of route numbers and list of stops not properly displayed on the vehicles or absent altogether is almost an separate issue on its own. Many of the prospective passengers are illiterate, but those who can read are deprived of this information, and there is no way of checking in case of any disputes over the deliberate by-passing of any section of the route. Sometimes the drivers take sudden unauthorized short-cuts in order to overtake the vehicle in front and pick-up prospective passengers from stops further ahead.

What people say about vehicle exteriors

'Once while stepping off a bus my shirt got torn.'[59]

'Once while stepping off a vehicle my shirt got caught on a nail, I landed on the ground alright but half of my shirt remained attached to the vehicle, it was the front part of my shirt.'[60]

'Younger brother was injured (see photograph), by a protruding strip of metal of a vehicle.'[61]

'Our white uniform becomes dirty (very quickly).'[62]

'Many accidents happen because of the wrong design or poor condition of the foot-boards; (a man) got tangled while getting off the bus and was run over and killed.' [63]

'The condition of the bus is such that it seems to say to itself that it should not be driven…once while trying to jump off the bus my 'burqa' (veil-gown) got caught somewhere in the door of the bus (as a result of which I fell down also), and the vehicle pulled me along for quite a distance, until the people shouted to the driver and he finally realised what was going on.'[64]

In the vehicles

The interiors of vehicles are not designed for the needs of the users, particularly the disadvantaged such as disabled people and children. Safety aspect like emergency exits or fire extinguishers are not provided. The tendency is to increase the space so that as many people can stand as possible. Seats are not comfortable. Women sit in the front, very close to the hot engine. Deafening/loud music is played, often containing vulgar (as percived by the users/women) lyrics. In the mini-buses and coaches the doorways are narrow, causing inconvenience to male as well as female passengers. Broken/rusted foot-boards, handrails, seats, windows, floorboards, and ceilings are a source of damage to clothes as well as a cause of injuries. Seat size and spacing is not standardized, resulting in excessively cramped interiors, and causing discomfort whether sitting, standing, or passing through the aisles. Garbage and dirt is often not cleaned up, and sometimes the seats are oily or damp. It is noteworthy that although the basic design considerations are lacking, the vehicles are well 'decorated' with engravings, photographs, and amateur paintings. It is not the lack of resources and but different priorities. On some

routes there is a competition among the operators for the best decorated vehicles.

Behaviour of driver and conductor

The behaviour of the conductors and drivers is extremely rough and rude. They often do not return the change due after payment of the fare, and seem ready to squabble and fight at the slightest provocation. The interviewees have recorded more than a hundred different complaints on this issue, some quite vivid:

What people say about inside vehicles

'I usually wear *shalwar* (loose trousers), according to the Sindhi tradition. Oil and dirt inside the vehicles tends to permanently stains the cloths which cannot be removed by washing. The clothes get so ruined that one cannot wear them to office or to any social gathering.'[65]

'Often there is oil on the seats, which spoils our school uniforms.'[66]

'If a passenger sitting beside me starts smoking then I leave that seat.'[67]

'Once a person spat his *pan* (chewing tobacco) out the window of a bus in such a manner that [it landed on me and] the white shirt of my uniform got stained, and when I entered my college all the girls made fun of me…my clothes once got torn while getting off the G-10 bus.'[68]

'White clothes get blackened because of the smoke inside the vehicles, one feels embarassed in front of collegues in the office, and senior officials point out the condition of my clothes.'[69]

'Once in the P-1 near Tin-hutti a young boy spat his [red] *pan*-spit onto the clean uniform of a Navy employee sitting in the vehicle, spoiling his clothes, then the navy man made the youth wash his white shirt for him.'[70]

'Two or three times it has happened that my clothes got burnt because of the (exposed) battery kept inside the bus [under the seats].'[71]

'Some people even feel nauseous while travelling in the (public transport) vehicles.'[72]

'The drivers and traffic police officials often openly use foul abusive language while talking to each other, which is a source of disgust for us women.'

... continued

'When I am returning home from my work and I happen to get the seat right under the speaker installed on the roofs in mini-buses, with loud music blaring from it.'

'Whenever passengers complain about clothes or brakes being torn or getting hurt by an exposed nail, the driver and conductor answer in unison that repairwork is the responsibility of the owners of the vehicles…I witnessed an incident myself, near NIPA Chowrangi, when the shirt of a lady once got torn from a sharp nail or loose metal piece, and she had to get on an auto-rickshaw to go back to her home.'[73]

'I usually do not like to hear music while traveling, but sometimes I happen to like a song, then I wish that the song would be played again and again…the first thing a driver does after starting the engine of the bus is to turn on the switch of the cassette-player.'[74]

'Once I had an exchange of harsh words with a conductor on a dispute about return of change after the payment of the fare, the conductor was insisting that he had returned the money whereas I had not received it, then after another passenger sitting beside me confirmed it he finally returned the money.'

'Ever since I was young I have never liked listening to music while travelling.'[75]

'It is usually the younger men who ask the driver or conductor to play music cassettes, while the middle-aged people do not participate in pressurizing the driver or conductor to stop the music…sometimes working women take out cassettes from their purses to give to the driver, so that he can play those cassettes during the journey.'[76]

'Once as a result of the shameless dialogues in a song all the passengers sitting in the vehicle lowered their gaze in embarrassment.'[77]

'Vulgar songs are played very loudly inside the buses, and the driver swoons in his thoughts.'[78]

'Because of the smoke, diesel, and rust the white uniform of the college gets soiled.'[79]

'We enter the bus looking like pageants and emerge looking like paupers [in Urdu : '*bus ke andar baboo bun kar dakhil hote hein aur abulhoal bun kar bahir aate hein'*]', remarked Safia Maryam of Nawa-lane. [80]

Minority groups issues

Gender issues in Pakistan are rooted in the overall socio-cultural context of the society. There are some issues which could be addressed by better transport arrangements. These are highlighted here to showthe effect of this poor transport system on the livelihoods of the women.

The women identified forty-eight different types of problems. Seventeen problems concerning children and students were also recorded. The issues of disabled and elderly people are the most neglected areas. The transport system basically has no provision for anyone with slow body movements or limited agility.

Womens' issues

There were a wide variety of comments, covering:

- shortage of seats;
- seating on top of the hot engine cover;
- women themselves not using empty seats in the men's section;
- harassment in the vehicles: from male passengers, by rubbing body-parts; from drivers, staring through mirrors and playing vulgar music; and from conductors by rude behaviour and unnecessary touching like tapping on shoulder; and
- harassment while waiting at stops: by men staring, taunting, and spitting *pan* on ladies' shoes: and similarly by the vendors/street hawkers.

What women say about travel

'Old women and women accompanied by children are instructed (by the conductors) to step on quickly (so as to not waste the time of the other more important people).'[81]

'The drivers make the college girls sit beside him on top of the engine compartment and then, with the excuse of needing to change the gear, tries to touch them again and again.'

'Women are treated unfairly inside the vehicles, the men pass indirect remarks on them.'[82]

'If any lady happens to use the mens' door for entering the bus, the men say, "Bi-bi shame on you, you are entering from the mens' door".'

'Because of the problems my daughter has had to abandon her schooling … Shama's cousin is handicapped because of her leg, but because of the problems and rush of the buses she cannot use public transport, and has no choice but to walk every day to school.'[83]

'I consider it unsafe to walk from the bus-stop to the Rahat-Gah Training Centre, while walking someone or the other always passes a teasing/taunting comment.'

'If men happen to be sitting on the ladies' seats, and two women should get on the bus together then the men vacate the seats, but if only one woman gets on the bus, then they feel hesitant to release the seats … during the journey the men stare at the women … it is a necessity for working women to wear presentable clothes … 90 per cent of the conductors ask for the fare from ladies by tapping on the shoulder.'

'Supporting rods are present on the ceilings for passengers who are standing, but because of the height of the rods it is difficult for the women to catch hold of it … when the men pass through the ladies' section, they have wrong intentions to begin with, they try their level best to bump into the women while passing … a myriad of mirrors are installed inside mini-buses and coaches, so that a woman can be viewed from different angles.'[84]

'If the public transport system starts functioning properly then men and women can travel together, there would not be any problems.'[85]

Childrens' issues

The children receive no considerations in the operation of public transport services. There is a lack of space and seats for children and students. There is no space for them to keep their heavy school bags. The children have to haul most of their workbook everyday from home to school and back. One can see little hands going blue while struggling to hold their school bags. The conductor also does not treat them well. They learn many impolite gesture and words while travelling. In the peak hours the children are among the most vulnerable.

Informally some small-scale entrepreneurs have responded to meet the demand for transport services for children. Private vans, mini-buses, buses, taxis, and rickshaws are used to pick up and drop children at the designated times. The travel time is still not satisfactory, but the condition of travel have improved. The coverage is still inadequate. The target of these initiatives are mainly middle-income households. The poor are generally not the beneficiaries such initiatives.

What children say about travel

'The conductor does not let the schoolchildren get in on the way back from school … the conductor misbehaves and pushes as he passes through ... our head aches because of the noise of the loud music inside the bus, and we even forget our lessons … getting pushed around everyday in the vehicles is irritating and disgusting.'[86]

'Because of the rush in the buses, dirtiness, and other problems, they are unable to use public transport for going to school, therefore they walk every day to school.'[87]

'The conductors consider us students unimportant, they do not stop the vehicles for us, just because our bus-fare is half.'[88]

Issues for disabled and elderly people

There is absolutely no consideration for the disabled and elderly in the design and operation of public transport. Disability is still a taboo in society. There are no dedicated seats or space for disabled people. People do leave space for disabled people, on voluntarily basis, if it is not a peak time. The inferior quality service to the poor has left the poor disabled and elderly with no

choice. They have to walk long distances even in harsh weather. For longer distances, they are dependent on relatives to accompany them.

Some NGOs and small-scale entrepreneurs are providing services to the disabled. The coverage is inadequate and the poor are not the main targets.

What disabled and older people say about travel

'The system of stepping on and getting off the bus is so dangerous that even the young people find it difficult to get off the bus, let alone the old people.'
'(A 60-year old) 'Uncle had an accident while trying to step off a bus, and his leg was fractured.'[89]

'My left arm is non-functional, because of the rush in the bus I find it extremely difficult to stand (while travelling).'[90]

'We do not consider ourselves safe after boarding the bus.' While trying to board a bus an Uncle who uses crutches while walking got his knees badly broken.' [91]

1. URC Interview, data-base ref. P-2.5
2. URC Interview, data-base ref. A-1.1
3. URC Interview, data-base ref. G-1.2
4. URC Interview, data-base ref. NA-1.2
5. URC Interview, data-base ref. D-4.15
6. URC Interview, data-base ref. NS-3.13
7. URC Interview, data-base ref. A-3.8
8. URC 'User' Interviews, ref. no. G-4.12
9. URC 'User' Interviews, ref. no. G-4.13
10. URC 'User' Interviews, ref. no. NS-3.9
11. URC 'User' Interviews, ref. no. S-1.1
12. URC 'User' Interviews, ref. no. NS-3.14
13. URC 'User' Interviews, ref. no. P-1.2
14. URC 'User' Interviews, ref. no. NS-3.12
15. URC 'User' Interviews, ref. no. A-1.1
16. URC 'User' Interviews, ref. no. P-1.2
17. URC 'User' Interviews, ref. no. NS-3.9
18. URC 'User' Interviews, ref. no. NS-3.12
19. URC 'User' Interviews, ref. no. A-3.12
20. URC 'User' Interviews, ref. no. Z-1.1
21. URC 'User' Interviews, ref. no. P-2.3
22. URC 'User' Interviews, ref. no. A-1.1
23. URC 'User' Interviews, ref. no. S-1.2
24. URC 'User' Interviews, ref. no. G-1.2
25. URC 'User' Interviews, ref. no. S-1.2
26. URC 'User' Interviews, ref. no. NS-3.14
27. URC 'User' Interviews, ref. no. A-3.11
28. URC 'User' Interviews NS-3.11
29. URC 'User' Interviews G-4.13
30. URC 'User' Interviews Z-1.2
31. URC 'User' Interviews A-3.8

63. URC ‘User’ Interviews NA-1.2
64. URC ‘User’ Interviews NA-1.1
65. URC ‘User’ Interviews NS-3.13
66. URC ‘User’ Interviews S-2.3
67. URC ‘User’ Interviews A-3.11
68. URC ‘User’ Interviews G-1.1
69. URC ‘User’ Interviews A-3.12
70. URC ‘User’ Interviews NA-2.6
71. URC ‘User’ Interviews D-1.2
72. URC ‘User’ Interviews G-4.12
73. URC ‘User’ Interviews NS-3.12
74. URC ‘User’ Interviews NS-3.15
75. URC ‘User’ Interviews A-3.9
76. URC ‘User’ Interviews A-3.7
77. URC ‘User’ Interviews NS-2.7
78. URC ‘User’ Interviews NS-1.1
79. URC ‘User’ Interviews NS-1.2
80. URC ‘User’ Interviews NA-1.1
81. URC ‘User’ Interviews A-3.8
82. URC ‘User’ Interviews D-4.15
83. URC ‘User’ Interviews A-1.1
84. URC ‘User’ Interviews NS-3.11
85. URC ‘User’ Interviews G-4.12
86. URC ‘User’ Interviews NS-1.4
87. URC ‘User’ Interviews NS-1.5
88. URC ‘User’ Interviews S-2.3
89. URC ‘User’ Interviews A-1.1
90. URC ‘User’ Interviews NA-1.4
91. URC ‘User’ Interviews S-1,2

Section 3

Analysis

An analysis of the issues

The study confirms that the three main actors in the provision of the transport services are:

- users;
- regulators/administrative agencies; and
- operators/transporters.

The actors have formal and informal relationships or partnerships to deal with each other. The formal relationships revolve around the legal jurisdiction and the roles and responsibilities of different actors. The informal relationships revolve around the mechanisms that benefit both actors mutually. In some cases both types of relationships, formal and informal, can be complementary, while in some they can be mutually exclusive.

An investigation into the issues surrounding the relationships between these three main actors is presented here. These relationships influence the transport services sector at both the secondary and tertiary level, and public transport services affect sustainable livelihoods. First, an overview of some of the trends in Karachi.

Spread across an area of 3500km^2, the population of Karachi exceeds 10 million and has grown rapidly in the last 30 years. There has been a parallel growth in the number of vehicles, both public and private, an increase that has severely taxed the transport system, which virtually collapses at peak hours. Travelling on the roads has become a nerve-wracking experience for passengers. Congestion, discomfort, and the accompanying chaos make users tired and stressed, their clothes become crumpled and dirty, and their shoes lose their polish. Many travel with an extra shirt and have their shoes polished by shoeshine boys before entering their offices. Some small-scale initiatives that users have taken to try to resolve their problems:

Some relationships to supplement transport service

Many offices arrange for a pick and drop van for their staff. Members of staff either pay the operators directly or pay the office, which then pass on the payments to the operators.

Some neighbourhoods organized on a co-operative basis to hire a contract carrier, which picks them up, drops them at work, and brings them back. Suzuki vans are also arranged by the garment industry to transport their female workers to and from work (Hassan 1999).

The scale of these activities is considerable and they are used by tens of thousands of commuters. These partnerships can act as models and be scaled up to reach more people. Tariff structures and quality services can be modified to help poor users to benefit from such small-scale entrepreneurs.

The detailed interviews and forums from which this information was gained are in Appendix 10.

Policy and operational context as perceived by the actors

Urban public transport issues are intricately linked with the overall social, political, and economic context. To understand the links between the policy and practice and sustainable livelihoods, using the sustainable livelihood approach was found to be very useful. A complex and deep-rooted network of variables influences urban public transport activity. Some key findings are presented here.

Inconsistent policies

There is a *lack of any consistent policy* to address urban public transport issues. The situation has worsened as a result of frequent changes in government which has led to decisions at policy and operational level being taken on an *ad hoc* basis. For example, the promulgation in March 1999 of an ordinance concerning the formal establishment of a Karachi Metropolitan Transport Authority by the then Governor of Sindh lapsed by the following June. By January 2000, the new Governor was reported to have not even mentioned the topic in the Annual Development Plan [ADP] for 2000/2001.[1] The policymaking process is non-participative.

Ineffective regulatory framework

There is a *lack of any effective regulatory framework* to oversee the needs of the poor and other users. The transport sector is effectively run by the unregulated and disorganized private sector. There are no reforms to enable the public sector to regulate better the private sector in the best interest of the public.

Inadequate capacity building

There is *no policy to support and build the capacity of the private sector.* The facilities of formal financial institutions and professional organizations are not meeting the needs of the private sector. For example there is no simple way to get a loan to buy a vehicles, no simple way to get the fleet insured for fire and theft, and no insurance available to passengers in case of death or injury during travel or by the vehicles.

Enabling economic policies

Economic policy does not provide an enabling environment for private investment in the public transport sector.

For example, high import duties on new and spare-parts put the private sector

under a huge financial burden. This burden is ultimately transferred to the users of the public transport, as profits have to be maximized by sacrificing safety and quality considerations. Overloading, speeding, disregard of traffic laws, poor maintenance of vehicles, indirect/unauthorized tactics for extracting additional fares, and disregard for the relatively less 'profit-conducive' commuters – seen as women, children, and people with disabilities – results.[2]

One of the implications of lack of financing is the tendency to purchase more small vehicles. The proliferation of mini-buses and other small vehicles (Suzuki pick-ups) creates many traffic problems, such as:

- increased congestion;
- reduced efficiency in terms of road occupancy vs passenger capacity ratios;
- increased per capita fuel consumption; and
- increased overhead expenses.[3]

Fuel prices, already inflated because of heavy taxation, have been increased twice in the current fiscal year, with possibilities of further extra-budgetary increases occurring before the end of the fiscal budget period, which reflects the general state of financial affairs in the country.

Targeting the poor

Many *policy actions assume a 'trickle-down effect' without properly targeting the poor*. One of the incorrect assumptions behind the introduction of a Karachi Public Transport Society (KPTS), chaired by the Sindh Secretary Transport, is that if the demands of the middle-income segments are catered to, then the issues of the low-income commuters will be resolved automatically. Another example is the introduction of new 22-seater coaches on the lucrative Sharae-Faisal routes, instead of on routes where the poor will benefit directly.[4]

Massive informal sector

There is a *lack of policy actions to benefit from the massive scale of informal transactions*. One example is the financial transaction between users and the conductors during travel. The absence of a formal fare-collection system is encouraging tax evasion as tickets are not issued. This is also the cause of most disputes between operators and the public, including frequent arguments between users and the conductors about the non-return of change due. The conductor operates on the basis of his memory. The result is that there is no evidence whether one has purchased the ticket or not. Accusations about repeated fare collection or non-payments are common. These informal sys-

tems of ticket collection necessitate the employment of two conductors or assistants on each vehicle; one for collecting the money, and another for keeping track of passengers boarding during the collection-round and for calling-out the route at stops.

Integrated city planning

Ineffective city-level master-planning is one of the major sources of direct and indirect adverse effects on transport activity. These effects include:

- traffic congestion and mismanagement;
- infrastructure problems such as broken roads and non-standardized and/or unauthorized speed-breakers;
- the absence of proper bus stops and terminals, including the non-existence of rickshaw stands;
- the inadequate network of routes causing overlapping and gaps and resulting in long travelling –times;
- the absence of any set planning or decision-making standards, therefore a lack of accountability and no proper basis for lodging complaints about irregularities or disputes such as the non-abidance of routes and fares; and
- the lack of co-ordination between utilities carried out -works on the roads.

Policy dialogue among the key actors.

There is a *lack of any positive dialogue –mechanism,* resulting in adversarial relationships among the key actors: users, operators, and regulators. Mistrust is caused by the lack of understanding of each other's roles, responsibilities, and. The impatience and unwillingness to listen of different actors has compounded the level of distrust in the public transport sector. The ultimate sufferers are the users. On many occasions decisions are made on the basis of who can exert pressure on the government. In many instances, this translates into strikes and political rallies.

Freight Traffic is an issue on its own, and is considered separately in the Appendix.

Ineffective governance

Transport infrastructure is not properly managed or maintained. One case in point is the Karachi Circular Railway. Another is the failure to enforce planning regulations; encroachments which were removed from the Saddar area in October 1999 were reported to have returned within three months, in January 2000.[5]

Laws and other regulations are not enforced either. An out-dated approach is one among a host of other factors, but it appears to be the main cause for the overall ineffectiveness of the law enforcement agencies. The result is the blatant existence of numerous irregularities caused by systemic corruption. There is anecdotal evidence that the *bhatta* system is the main reason for the massive scale of road-side encroachers, who are one of the major sources of traffic congestion. Other irregularities are:

- lack of control over fuel adulteration businesses;
- lack of effective punishment after accidents – even where they involve injuries and death – results in the widespread occurrence of accidents;
- frequent traffic and parking violations; and
- frequent interruptions of traffic by policemen conducting mock 'document checking' operations (to obtain bribes).[6]

A general lack of concern about accountability manifests itself in the wide-spread trend of lawlessness and corruption based on personal influence, political relationships, and monetary links with regulatory bodies. This in turn becomes the cause for the violation and bypassing of any 'inconvenient' rules and regulations. Thousands of buses operate illegally without route –permits (seethe Present set-up and Historical review sections).[7]

An inefficient organizational set-up in the transport sector with unclear roles and responsibilities and many duplications has further destroyed the transport situation. For example, an urgent bill concerning the establishment of KMTA which was put before the Sindh Assembly in May 1999, was subsequently referred by the speaker to the Local Government department on the basis of 'financial implications'. They in turn referred itto the Transport Department, who sent it to the Mass Transit Cell for 'expert comments'. All this after a months-long exercise to finalize the draft of the same bill in which all of the concerned departments, and the the departments dealing in Finance and Law, had already minutely examined all aspects of the bill. In this way many plans just remain on the shelves. Delays in roadworks projects cause months of traffic jams and accidents (as was the case in a number of the recent bridges and flyover projects, as well as the already heavily invested Karachi Mass Transit Project) in turn escalating the final completion costs and lack of services to the poor.[8]

There is also the problem that planning and policymaking is detached from both theimplementation mechanisms and the public, as the administrative and

regulatory bodies themselves realised in the forum organized by the team during this study to discuss the issues.[9]

Social/Cultural influences

Gender issues in transport activity are rooted to a large extent in the same socio-cultural values. People behave and show their feelings differently in public and private. Some men believe that women travelling without their accompanying male relatives are of inferior character and hence deserve to be treated accordingly. Children and people with disabilities do not get any special treatment. A low literacy rate, particularly among the operators and the users from low-income backgrounds, who form the majority of commuters travelling in large buses and mini-buses/coaches, is the main reason that route numbers and stops are not displated on the busses. Display was originally required by law and implemented, but then it transformed into the default system where the conductors call out the routes.

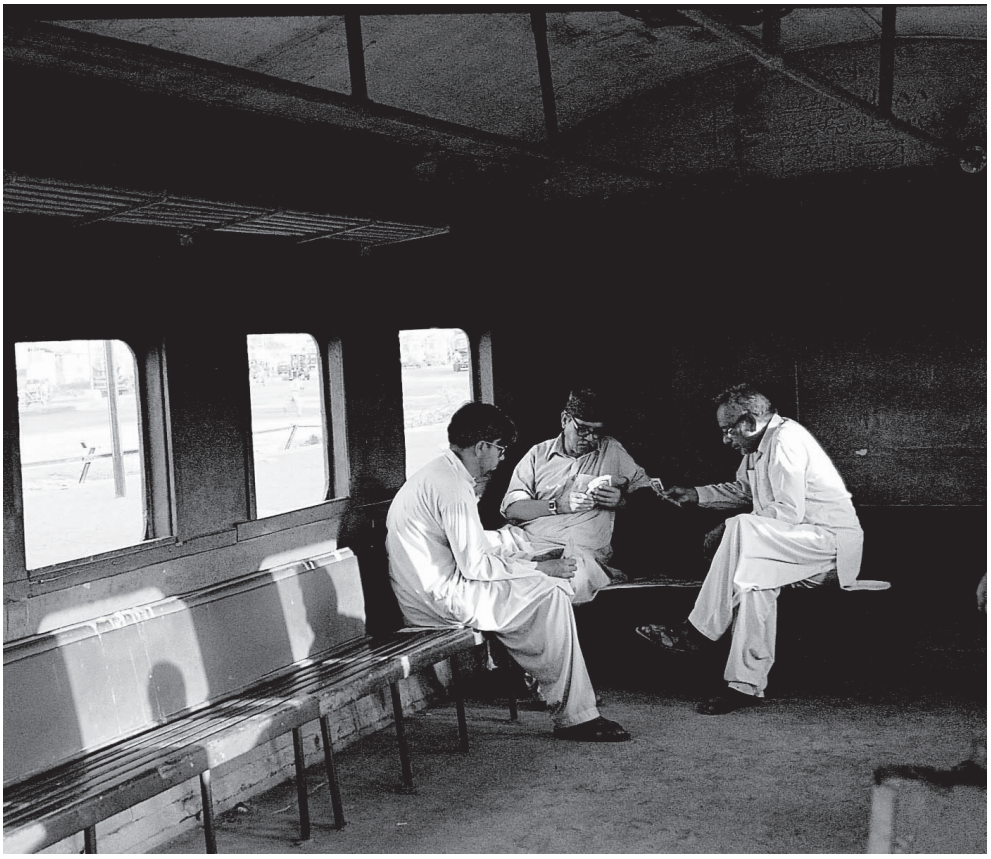
Politics directly impacts public transport. Informal partnerships exist between politicians, executives, and the operators. These partnerships are reported to involve political favours, 'gifts', and cash payments which directly or indirectly influence the decision-makers. As a part of such partnerships, operators support the politicians during rallies and demonstrations, and free transport is provided to political workers. The users suffer the most as vehicles are diverted to political activities, increasing the already very long waiting times even further.

Civil society and professional networks

As a response to the lack of governance and inappropriate policymaking process, many civic societies and professional institutes are trying to fill the gap by articulating the problems and lobbying effectively against projects which do not appear likely to have positive impacts on the transport situation. Examples include the rebuttal from the organized civil and professional institutions against the proposal for the Karachi Mass Transit Project and Lyari Expressway project. It is not only the content of the arguments against the donor-backed top-down approach that is illuminating, but also the process. (Details can be obtained from the first author.) Some observations are as follows:

- Civil societies are active and organized
- Links and alliances between civil societies and professional institutions are being made.

- Information is hard to hide from the civil societies regarding development projects.
- Development has its political dimension, which is hard to ignore.
- People see transport as an issue with a direct bearing on their livelihoods.
- 'Lip- service' consultation will be hard to sell in Karachi.
- Donors and their consultants will have to internalize the concept of partnerships and participation. People are not naïve enough to accept attendance at a meeting as an indication of true partnerships.
- Decision-making processes will have to be transparent.
- Accountability thoughout the process, not just at the end, is crucial.



Emerging directions for action from the three actors

This section presents the perspectives of key actors, as identified during the interviews and forums.

The users' perspective

A brief listing of the main concerns and problems faced by the users has already been presented in the preceding section; the focus here is on extracting emerging actions based on the perceptions of the key actors.

What others to do

- Fares should be affordable, and fare increases should be properly designed and planned.

- The public transport sector should offer conditions that will attract a larger and more professional private sector. Economic and development policies should create an enabling environment.

- On the routes where it is not feasible to make a profit, the public sector should directly or indirectly provide public transport services.
- Public transport should be available for longer hours, including after 9pm.

- An affordable service should be available for use during emergencies. At present the most frequently used modes in an emergency are taxis and rick-shaws, which are also the most expensive. Better ambulance services should also be introduced. For other activities and travelling, the modes include bicycle, motorcycle, walking, and tanga (horse cart).

- Bus routes should cover the hospital and the service on such routes should be more frequent.

- Space should be provided for luggage such as school bags and shopping bags.

- Corruption should be brought down to a level where it does not allow such massive violations of law and regulations.

- Vehicles should be tested properly for fitness. Corruptly issuing a certificate without a proper examination can endanger lives, and should not be allowed to happen.

- Traffic police should really control traffic and curb violations, not make the routine check-ups simply a source of bribes. A responded reported that, 'Even if the drivers have not violated any traffic laws, the police still stop them on the excuse of checking papers, and then they extort bribes of between Rs20 and Rs50'. Drivers should not speed, owners should not create conditions that force the drivers and conductors to speed.

- There should be a minimum qualification for drivers and conductors. They should behave decently and give tickets or receipts for payments.

- The distance between bus stops should be standardized to minimize walking.

- Buses should stop at all bus stops and wait for users to board and alight from safely. Special provisions should be made for women, older people, children and people with disabilities.

- The locations and condition of bus stops should be improved. Basic services, proper ventilation, and shade should be provided.
- Properly designed bus terminals should be provided.

- Bus stops and bus numbers should be properly marked and displayed. Non text-based communication should be explored for providing basic information about travel.

- Travel distance and duration should be minimized by rationalizing the routes.

- An appropriate mix of vehicles should ply the main routes in peak time, in particular more large buses are needed.

- The infrastructure should be maintained better, and the public should be involved in supervision of works to ensure that a high standard of quality is maintained. At present workers are bribed to accept poor quality work.

- Public transport should be made comfortable and a pleasant experience, unlike the current situation, as described in some of the interviews.

Interviews excerpts

From a woman who had to abandon her job because of the poor quality of the transport system: '…I used to get delayed in reaching my workplace as well as my home, I was tense all the time, and I felt exhausted; because of these difficulties I stopped going to work.' D-1.2.

'The problems of transport have a profound negative impact on our lives; because of the resulting mental tension, we become irritable, and we become victims of high blood pressure and other psychological disorders, and we begin to be depressed most of the time.' NA-1.1

'The problems of transport have a devastating effect on our lives, so instead of moving forward we are moving backwards…and our performance is affected.' NA-1.4

Some of the specific comments are highlighted below:

At a bus stop

- There should be proper law enforcement to prevent the harassment of women.

- Bus stops should be properly designed and provided with facilities such as shade, timetables, and lights.

In the vehicles

- Doors should be designed for the safety and convenience of the users. Two inter-connected doors with no permanent barrier between them is preferable. The doors should be wide enough for passengers to board and alight from the vehicles.

- Seats should be properly designed for the convenience of the passages. The vehicles should be properly maintained and regularly cleaned.

- Seats should be available to users.

- The buses should not be overcrowded.

- Special arrangements should be made for the disabled. One blind person complained that he has extreme difficulty getting in and out of the vehicles.

- The environment inside the vehicle should be improved from the one described by an interviewee who said that 'due to the rush and smoke inside the vehicles, I have to change the shirt of my uniform every day, the clothes get all wrinkled-up…I reach my college after a journey of about 35 to 40 minutes, at the end of the journey I have a headache, my mind loses its freshness, I feel a strange restlessness during classes, and I keep sensing the smell of oil in my breath.' A-3.11

- The use of pressure horns should be strictly prohibited on the grounds of noise pollution.

- Vehicles emitting dark smoke should be removed from the roads. The smoke is injurious to health and spoils clothes. This has financial implication in terms of both health and cleaning.

- The music in the buses should be played at a low volume and it should not be vulgar.

Accidents and their effects

There is an urgent need to improve road safety. Accidents hurt the poor the most. If a poor breadwinner dies or is seriously injured, the household loses the income and has to bear the additional cost. There is no insurance system to cover such situations nor is there any effective social security. Few poor people are covered by any social security, so the only safety net available is taking loans from relatives.

Following are some of the excerpts from the interviews:

Interview excerpts

'While I was travelling in a W-21 van another bus hit my bus. My leg was badly injured. I could not work for three weeks. My husband and children faced difficulties in maintaining the household jobs. My leg still hurts, I can't walk long distances now.'

'A U-9 van crashed with another vehicle, and four men died on the spot. My daughter and sister-in-law were injured in the accident, receiving stitches in the head and legs.

... continued

I was travelling on the roof of a Zafran Coach, when I fell down and broke my leg. I was admitted to a clinic for two months, incurring expenses of around Rs80,000. I still have to use crutches to move.'

'Our settlement (Awami Colony) is near the National Highway. It is routine here to have 30 to 40 accidents every year, but no action has been taken to improve road safety.'

'On Korangi No.2 1/2 crashed with a mini-bus. My leg was fractured. I was admitted to hospital for two months. I paid thousands of rupees.'

Speed breakers

Properly designed traffic-calming schemes should be introduced. The existing speed-breakers are not effective. The breakers should be marked properly so that the driver does not have to suddenly apply the brakes, which can be dangerous to the passengers or the vehicles behind.

Modes and options

Buses, complemented by rickshaws, taxis, and Suzuki pick-ups should be available in the low-income settlements.

The Circular Railway should be extended and made more effective and efficient.

Travelling by bicycle over small and medium distances is possible but very unsafe at the moment. Action is required to make this mode of transport safer. Alternative modes like rickshaws and taxis are not affordable. The drivers do not use meters and demand very high fares, and where meters do exist they have often been tampered with.

Public transport should be made safe and comfortable for families to use. Consideration should be given to reducing the segregation between men and women. Others feel that the space allocated for women in the buses should be increased.

Contractor carriers

The increased use of contract carriers on certain routes should be explored for low-income settlements. Considering the inferior quality of the general public transport, many users prefer a contract carrier. In some cases the users pay as they use the service, but more often employers hire the contract carrier and deduct the costs from the employees' wages. Contract bus fare range from Rs250 to Rs600 per month, depending on distance. The quality of such services was reported to be superior. Some users use such services only one way to save money, for example they prefer to get to work on time and clean but take their chances on the way home.

What users can do

- Communities should organize themselves to contribute to solving the transport-related problems in the community.
- People should bring change to pay their fares, as the conductor cannot deal with large denomination notes.
- Users should not urge the driver to speed.
- Users should be civil while travelling. Smoking, spitting, and indecent behaviour towards women are unacceptable. Users should also be considerate of fellow passengers.

From the users' point of view, the main problem is the lack of access and poor quality of urban transport. Travel is uncomfortable, extremely so during peak hours. It is also unsafe, and users pay unaffordable prices for such an appalling service. Poor users have no effective platform to raise such issues. There is a huge gap between policy and practice, and one user said that 'there is no procedure or place to even express complaints, let alone make an input during policymaking exercises (URC Forum).'

The transporter/operator's perspective

The diagnosis of the key problems by both users and the operators converge around certain key areas, but the proposed solutions to these problems differ. The views also differ on organizational issues.

The views of the operators have been extracted by interviewing the key informants and conducting forums. A brief listing of the key personnel and organizations that represent operators' views is given in section 2. Some of the key points are as follows:

What others can do

Key general actions

- There is an urgent need to fill the policy vacuum which has existed in this area since the birth of this country. There is a need for a properly thought-out transport policy/plan for Karachi that is based on reality. Operators are willing to contribute to such policy formulations.

- The co-ordination among public agencies should be improved, and any move towards a one-stop service would be highly appreciated.

- The decision-making process should be improved and should invite full and meaningful contribution from operators. *Ad hoc* decisions should be reduced to a minimum. In some key decisions, such as the fixing of fare, the participation of the operators is crucial.

- Capable organizations — not individuals — should be the preferred operators. Currently companies have only 5 per cent of the market.

- Measures should be taken to organize the small entrepreneurs and build their capacity to improve public transport services.

- After the recent recognition of public transport as an industry, benefits such as access to bank loans and insurance services should be made available to the operators at affordable price.

- Simple and transparent procedures should be developed for procuring facilities such as land for bus terminals. Operators are ready to rent, lease, hire, or buy unused government land. In the absence of such positive measure the operators are forced to park and carry out maintenance on the roadsides.

- Road conditions should be improved. Operators are incurring huge maintenance costs because of the poor quality roads, which have deteriorated because of the absence of proper drainage, the overflowing sewers, and the poor of the original construction. In addition the roads are frequently dug up by different utilities and then not properly restored.

- Traffic calming measured should be improved. Traffic-calming humps are badly designed and badly located, causing additional maintenance costs and traffic hazards.

- Better enforcement of the law is needed to eliminate the availability of adulterated oil and fuel. Operators complain that the oil supplied is impure, which not only affects vehicle performance, but is also one reason for the excessive pollution in the city. Unless better quality oil and petrol are provided, the pollution problem will persist. Adulterating oil is a major business in Karachi. Informal factories produce it and then package and market it in brand-name containers.

The operators have some particular problems which need specific attention.

Assimilating informal money lending

Partnerships between the informal and formal financial organizations should be explored to serve the sector better and improve the access and quality of public transport.

In the absence of any formal provision of financial services, operators have no choice but to use the readily available informal financial services. Informal money lending is operated on the basis of no financial collateral, high interest rates, and a strict repayment schedule enforced not through the courts but by 'muscle' and other social or rather 'non-social' means such as threats and the use of physical force. The operators, in spite of this very harsh financial package, usually take loans from moneylenders at rates as high as 100 to 200 per cent. These high rates have implications for the travelling public, as it means operators must maximize profit at any cost, leading to the stressed behaviour of drivers and conductors. If financial services were accessible, effective, and efficient, it is argued, then access to and quality of public transport would be significantly improved. The nature and dominance of the informal financial services sector has in fact enabled the operators to run the transport business.

The high level of usage of such services also demonstrates the demand and/or lack of formal financial services. Formal financial institutions can learn from the existing situation, and if they are willing to modify their procedures will have an opportunity to exploit such a huge market. It is the formal sector that needs mobilization and not the informal sector.

Compensation for loss during law and order situations

Operators should be compensated when the loss due to of law and order in the city prevents them from working. They should also have access to insurance cover for accidents, deaths, and material loss, and possibly for users and third party claims. The government used to compensate the owner at the market

price if a vehicle was burnt out or damaged during violence in the city. Such practices have now been abandoned despite the loss of between eleven and twelve thousand vehicles in the last two years. This has effectively transferred a significant proportion of risk from the government to the operators.

To combat such situations, entrepreneurs have taken the initiative and set up a self-help compensation and insurance process, described below.

Self-help compensation scheme

The Karachi Bus Owners Association (KBOA) has initiated a Self-Compensation Scheme. Under this scheme each member bus submits Rs15 per day to the KBOA. In the event of violence-related damage, an assessment team ascertains the cost of damage and the KBOA pays up to Rs250,000 within a week to the owner of the damaged bus. This scheme began with a daily fee of Rs2, and the amount was gradually increased.

The formal compensation process that used to be available occasionally was a very lengthy and complex process. Many times only a strike threat produced results, and sometimes the government paid only 25-50 per cent of the total damage.

The self-help compensation scheme was started in 1986 and so far up to Rs20 million has been distributed to members. During this period more than 300 large buses were set on fire. The government has now started to take an interest in the scheme.

A formal approaches could be developed, based on this scheme which the informal sector not only developed but enforced without any recourse to law-enforcing agencies.

Better tax assessment and collection procedures

Operators are willing to pay the tax they owe if the procedure is simple and transparent and the benefits of paying the tax are visible. An arrangement between the Central Board of Revenue and the bus-owners used to exist by which the owners paid income tax according to a mutually agreed formula. But income tax officials constantly harass bus-owners, asking them for far more money than what was agreed. This lack of trust and clarity leads, in many cases, to settlements which benefit the operators and the government officials with a loss to public revenue.

Improved traffic regulations

Appropriate and fair traffic regulations should be developed and enforced, as the existing traffic regulations are out-dated. There must be some effective deterrent to prevent reckless driving, but the existing regulations penalize the owners and not the drivers.

Harassment by police

The level of corruption should be reduced to at least a level where businesses remain feasible and the access to and quality of transport is not significantly affected. The cost of corruption is ultimately borne by the users. Just as the income tax officials harass bus-owners, the police are a permanent bane in the life of bus drivers, implicating them in numerous offences in order to collect excessive bribes. Magistrates are also allegedly involved in this extortion and collect large amounts of money from bus drivers.

Many operators who reportedly pay monthly *bhatta* to the police, and it is alleged that all mini-buses pay a regular amount of up to Rs3000 a month to the traffic police. It was also reported that at least '15 per cent of the mini-buses are owned by policemen'.

Corrupt practices

'… operators pay monthly *bhatta* to police.'

'… mini-buses pay a regular amount of up to Rs3000 a month to traffic police.'

'… at least "15 per cent of the mini-buses are owned by policemen"'.

'The traffic police, instead of controlling traffic, stand in corners and catch drivers and negotiate with them for their own pocket money. Even in traffic *chowki*s the officers take Rs300 to 500 on each *challan* but they submit only Rs25 to 30 to the government treasury.'

'In the courts (sorry to say) the *peshkar*s do the same thing. Now we must think whether we want to change the system or continue as it is.

... continued

'Presently there is only a nominal fine of between Rs20 and Rs30 for traffic violations, but the traffic police usually charge around Rs200 to Rs500 on normal violations. All this extra money goes in the pockets of police officials.'

'The concept of fines was to generate revenue for the government but nothing goes into the government accounts. The traffic police encourage the drivers to violate regulations. When police officials catch a driver, they begin bargaining on the amount of the fine. When both parties settle on the amount, the driver pays but does not get a receipt. This situation has encouraged drivers to think that violating traffic rules is just a matter of paying the police.'

Inconsistencies in bus fares

Karachi's bus fares are reportedly 70 per cent of those in the Punjab (another province), even though the cost of parts, oil, and petrol are the same all across the country. Thus there is a need to rationalize fare structures across the country. This will lead to improvements in access to and quality of public transport.

Specific actions

The following are some of the specific actions proposed by the transport associations:

- A central bus terminal should be built and maintained.
- Routes should be rationalized and the procedures for approvaling new routes should be simplified.
- At least three terminals need to be built on the outskirts of the city. The proposed locations are Quaidabad for buses, coaches, and mini-buses coming from the National Highway, Sohrab Goth for passenger vehicles coming from the Super Highway, and Mauripur Road or Sher Shah for vehicles coming from Balochistan.
- Terminals should be developed at the end of each bus and mini-bus route in the city, and parking bays should be built so that buses and mini-buses can pick up passengers at specific approved places.

- Stops should be built for taxis, rickshaws, buses, and mini-buses in all the districts of the city to give passengers easier access to the city and so that operators pick up passengers only at approved places.

- Substantial improvement are needed in traffic management throughout the city to improve vehicular flow.

- To improve co-ordination among the various existing civic organizations, a Karachi Metropolitan Transport Authority (KMTA) is needed to both co-ordinate traffic in the city and provide a platform for improved dialogue among the different actors in the transport sector.

- Banks and other formal institutions should loan money to operators on appropriate conditions to purchase and refurbish buses and other public forms of transport.

- Bus owners should be given financial incentives, such as an exemption from the numerous taxes imposed on the purchase of new vehicles.

- The operators recommended the development of simple, swift, and transparent procedures for imposing penalties for traffic offences.

- The private sector should be allowed to run more large buses.

- Action should be taken to support operator's associations attempts to educate their members in areas such as financial management, dealing with taxes, dealing with legal matters, marketing, bookkeeping and accounts, and collective bargaining.

What operators can do

- Pressure horns should not be used on buses.
- Drivers should not play loud and vulgar music.
- All vehicles should use silencers to reduce noise.
- Owners associations, with help from others, should educate their members to improve access to and quality of transport services. The initiative should come from the government.

The regulatory and administrative agencies' perspective

A forum and workshop was conducted by the URC with the help of Mr Tasneem Siddiqui, Director of the Sindh Katchi Abaadis' Authority (SKAA) at the SKAA offices, in which a number of key issues emerged (detailed documentation can be obtained from the first author of this report). A brief summary of the point of view of the regulating agencies is presented below.

General issues

- There is a need to develop capacity to make realistic projections for short, medium, and long-term travel demands, on the main corridors at least. These projections should take into account the changing physical and socio-economic situations.

- A rationale for selecting public transport options should be developed. The rationale should include consideration for institutional capacity and cultural preferences

These are some of the different options:

1. Bus systems	Mini-bus/conventional/high-capacity Mixed traffic/bus lanes/bus ways diesel/electric
2. Rail system	on-street (tram) Mixed on-street/reservation (LRT) Reserved rail right-of-way (rail rapid transit) shared use of railway (suburban railway)

In view of the likely constraints in the investment budget, it was felt that least one high-capacity bus system should be tested.

3. Other mass transit systems (e.g. monorails)

- The burden on motorized modes can be relieved by the better use of non-motorized vehicles such as bicycles etc.

- Any improvements such Light Rail Transport and rail mass transit technologies, if undertaken, should be demonstrably cost effective. The considerations should also include life-cycle cost. Current institutional capacity and coverage of low-income settlements should be considered.

- The existing urban railway services should be expanded to cover low-income settlements. The service should be effective and efficient.

- To relieve the pressure on roads, urban railways could be used for freight transport.

- Linkages among different mode of transport should be explored to improve the access to and quality of public transport.

- Infrastructure improvements like grade-separated intersectionscould reduce congestion. Proper maintenance of the existing infrastructure is urgently required.

- Passenger carrying capacity needs to be improved.

- The importance of affordability is particularly relevant for the provision of services to the poor. Affordability and the role of the private sector are closely linked. If a scheme can be developed which can be funded largely or entirely by private sector interests and can achieve full cost-recovery with affordable fares to the users then the burden on government can be minimized. This would also free up government resources and enable spending in other important areas. The role of public and private partnerships is vital in providing access to quality public transport services. Recent Karachi Transport Corporation experience has shown clearly some of the difficulties of running a state-owned enterprise. On the other hand, there are problems associated with the private sector too, particularly with regard to some irresponsible behaviour. It is clear that the choice is not either/or but to develop a relationship which enables both sectors to deliver quality services to the users. Some functions such as regulation must always remain with the public sector; others, such as those which require entrepreneurial flair may be better handled by the private sector. Particular opportunities for the private sector should be identified, such as financing, construction, local manufacture, operation, etc. Different contractual arrangements such as concessions, leasing, or franchising should be explored for the role of the private sector in the local context.

The following is an example of an initiative where a partnership between the public and private (non-commercial) sector improved transport.

Citizen's initiatives in managing traffic in Karachi

In early 1997 a group of senior government functionaries and professionals from the private sector collectively mobilized the government machinery to establish its role in the management of traffic in the city. With the blessings of the Home Secretary and the Commissioner, a Traffic Management Project (TMP) was established through a standing order issued by the Inspector General of Police. The first step was taken at Karachi Airport by co-ordinating the functions of the Civil Aviation Authority (CAA), the Airport Security Force (ASF), Pakistan International Airlines, the district police, and the traffic police. The ASF reopened the arrival lane (adjacent to the concourse) which had been closed because of security problems and congestion caused by drivers parking in non-parking areas, traffic signs were put up and bays were opened in the parking area, three forklifts were provided by the CAA to remove vehicles parked in no parking areas, while the Deputy Inspector General (DIG) Traffic provided a well-trained police force to make sure the traffic rules were implemented. Many of these changes have been sustained ever since.

Building on the initial success at the airport, in October 1998 the Chief Secretary (Sindh) directed a Steering Committee to expand the TMP to other areas of Karachi. This Committee consists of the Chief Secretary as the Chairman, the Home Secretary, the Inspector General (IG) Police, the Commissioner, the DIG Traffic and four professionals.

On 3 March 1999 the TMP was extended to the 14km-long Shara-e-Faisal, the road from the airport to the Hotel Metropole. Before launching the Shara-e-Faisal project, the TMP discussed and sought the support of the senior members of the government of Sindh, the police officials and their personnel who were going to be deployed to manage the project, senior army officials, and representatives of public transporters. The Commissioner Karachi, the Deputy Commissioners (DCs), the SSPs (Police), and the Senior Traffic Magistrates of District Malir, South and East provided support by way of organizing the whole exercise and lending administrative capacity. Away from the congested City Courts in the old part of town, a makeshift traffic court was established at a convenient place, on the junction of Shara-e-Faisal and Shahrah-e-Quaideen.

The initial results of this intervention have been most encouraging. Prior to this intervention, the number of *challans* (tickets) issued for traffic violation averaged 25 per day. The income to the provincial exchequer for the entire year of 1998 was Rs260,000. After the intervention they have increased to an average of 850 per day, bringing into the provincial exchequer a sum of Rs 55,000 per day, or a projected sum of little over Rs20 million per year (in contrast to the Rs260,000 for an earlier year) from Shara-e-Faisal alone.

The significance of this intervention is that:

- it is not a donor-driven NGO project pretending to succeed where the government has failed; and
- the government has been made to initiate a comprehensive and long-term intervention by relying entirely on its own administrative infrastructure, and without incurring any additional expenses, either through local resources of through borrowed money.

This exercise, once again, reiterates the obvious: that the missing links are the collapse of the government, its lack of political will, and the absence of modern structures of administration. If the programme can be expanded and sustained, then it will demonstrate that with a system of accountability and public pressure, the existing administrative machinery could go a long way towards establishing norms of good governance.

Specific suggestions

1. Relocate encroachers like vendors cart pullers away from existing bus stops by allocating marked space for them at the new bus terminals.

2. Traffic control, signalling, and management systems should be improved. Errant drivers should be penalised not only with fines but also with imprisonment.

3. Bus designs should be changed to accommodate the increasing number of women commuters who need more space.

4. Through a planned exercise the number of big buses should be systematically increased.

5. Buses and mini-buses should not be allowed to wait for more than three minutes at intermediary stops.

6. Bus terminals, depots, and workshops should be provided to serve public transport vehicles and operators from using the roads. This would reduce the chronic congestion on the roads as well as facilitating faster and less polluted traffic.

7. The area within 250m of all major road junctions must be cleared of all encroachments, car parking, and other related facilities. These junctions are the worst bottlenecks and snags in the flow of traffic.

8. Segregated bus lanes should be created on all major arteries, with the traffic police responsible for the proper movement of traffic. Not only would this reduce average travelling time, but would also increase the efficiency of the whole system. This has been done successfully with remarkable results in many other countries.

9. Bus routes should be rationalized, as they have not been reformulated in Karachi since 1972. This will reduce distances and cut down travelling time.

10. The relocation of truck stands, warehouses, and oil terminals out of the city to Sohrab Goth and Port Qasim is essential to ease the congestion caused by the movement of heavy vehicles on inner-city roads. For access to Karachi Port, priority must first be given to the development of the Northern Bypass rather than to any other costlier options.

11. The introduction of a proper transport system for schoolchildren to replace individual pick-and-drop system would also help to decrease traffic congestion in the city considerably.

Section 4

Recommendations

Case study recommendations

Effective transport policy depends on effective master planning, infrastructure provisions, and physical and town planning. Since these prerequisites are largely absent in Karachi, effective transport planning cannot be undertaken. Moreover the resources of the country are dilapidated, with the annual budget comprising only three headings: debt-servicing, defence, and salaries of the administration. The poor macro-economic conditions hit poor householders hardest, so only an approach that is based on economic realties of the poor is feasible. Whatever exists has to be built upon. Based upon these fundamental principles, developed in the study, the following list of recommendations have been generated.

Improvements

In spite of all the drawbacks, a system of public transport does exist in Karachi with almost negligible support from the public sector. It cannot be suddenly and totally replaced (in the given set of conditions), only a gradual process, spread over a period of time, is feasible. Nevertheless there is room for further improvements in access to and quality of public transport for sustainable livelihoods of the poor.

Rationalisation of routes for better access to poor

One of the major factors behind the lengthy travelling times of the present system is the unplanned and irrational distribution of routes across the city. The findings of the research revealed a number of examples of passengers having to travel long distances in the wrong direction because there are no connections or direct routes to their destinations. A comprehensive study is therefore needed to overcome this anomaly. This also indicates that there is a lack of professionals, hence there is a need for institutional training.

The users' suggestions about flow/speed of transport vehicles

Tanvir Shahzad of Nasri Colony has suggested that, 'the distance between one bus stop and the next should be 1 kilometer'. NS-3.9

Reducing travel time

Reducing travel time, particularly for women, will enable the poor to undertake alternative capital- and social-asset building activities. The flow of buses on the roads can be made smoother through the introduction of exclusive lanes in the centre of the main corridors. An existing successful and comparable example is that of Tehran, where the main routes allow unhindered and fast passage to large public transport vehicles. The cross-traffic has been cordoned off creating at least 1km-long stretches of uninterrupted travelling. This segregation must be located in the centre of the roads, otherwise turning into or from the other major corridors becomes unmanageable.

Improving levels of comfort

The system could take advantage of a number of economies of scale if larger buses (with seating for 50+) are encouraged. This can be achieved through exploring possibilities for the provision of credit. Simultaneously the mini-buses can be phased-out or at least redesigned and standardized both inside and out. Also, instead of the individual-ownership system prevalent at present, the formation of large companies or co-operatives with fleets of buses should be encouraged, so that responsibilities and control can be consolidated.

The users' suggestions about interior environment and social/behavioural issues during travel

Ms. Sarwat Iqbal, a teacher for special children who lives in Nasri Colony, is of the opinion that, 'if men have to cross through the ladies section for some reason they should at least apologize while passing'. NS-3.11

'Men should not enter from the ladies' section, even if the conductor tells them to do so…in my opinion, if the ladies refrain from sitting in the mens' section then why should the men sit on the ladies' seats…if I had a gun I would shoot those conductors who pat the shoulders of women when asking for the fare', are the views of Mohammad Ibrahim Daad who lives near Nasri Colony. NS-3.13

... continued

Mohammad, who lives near Nasri Colony admits that, 'after taking *naswar* (a type of chewing tobacco) I used to wipe my hands on the seatcovers, but then I realised that others must be disgusted [by this], so now I have decided that in an effort to contribute to the cleanliness of the vehicles, I will never again use *naswar* while travelling'. NS-3.15

'The prohibition of using cigarettes, *pan,* and *naswar* while travelling should be strictly enforced', suggests a student of Awami Colony named Ghulam Murtaza. A-3.11

A resident of Awami Colony, Mr. Ameer Khan has suggested that, 'the conductors of all mini-buses and coaches should issue tickets or receipts to their passengers'. A-3.9

Improving infrastructure (services, terminals, depots and workshops)

One of the main reasons for congestion on the roads in Karachi is the absence of proper arrangements for the services essential for the operation of public transport. This includes terminals, workshops, depots, rest and recreation facilities for the drivers and conductors, as well as spaces for shops and vendors to cater to passengers. At present all these functions are being carried out on the streets, and it is estimated that up to 40 per cent of street space is encroached upon by these activities in some of the busiest areas of the city. The building of proper bus stops and the relocation of hawkers and vendors in a planned manner is therefore one of the most immediate and serious concerns related to transport activity.

The users' suggestions about infrastructure and roads

Mr Arif Maseeh of Nasri Colony has suggested that 'the speed-breakers in front of schools or hospitals should be of a design approved by the Traffic Engineering Bureau'. NS-3.10

Improving vehicle condition and maintenance

Operators need to be aware of preventive maintenance and the benefits of routine maintenance. Generally, repairs only occur when the vehicle breaks down in operation, which leads to downtime for the vehicle and problems for passengers. A well-maintained vehicle, both mechanically and in terms of body work, can be cost effective as it can be operated more regularly. Passengers will prefer to travel in more reliable vehicles.

Over-crowding

An effective mechanism for controlling over-crowding needs to be developed. Various possibilities can be explored, including the introduction of different doors and high-capacity standee only buses could be considered as well as training operators in working to safer standards.

The users' suggestions about overcrowding

Mr Mohammad Kaseer, a government employee residing in Awami Colony, has suggested that 'in order to decrease the load of passengers on the public transport system, it is necssary that the larger organizations should offer pick and drop facilities to their employees'. A-3.12

Pollution control

The conversion of all public transport vehicles to compressed natural gas (CNG) an alternative fuel can be explored through credit arrangements and other mechanisms, and a study can be carried out to determine the potential. India is a good example to watch, as the government has announced a policy of compulsory conversion to CNG by the end of this year for all public transport modes in Delhi.

Safer provision for boarding and alighting, and for the disabled

Footboards have to be designed and standardized to allow passengers to board and alight safely, in co-ordination with arrangements to ensure that vehicles slow down correctly and to provide proper bus-stops. In addition, appropriate arrangements need to be made for passengers with disabilities. This would mainly involve redesigned footboards and interior.

Drivers and owners need to be trained in safety regulations. Drivers need refresher driving courses to make them more aware of safe driving. Incentives to drive safely should be offered and regular health checks need to be given to drivers. Drug addicts should not be allowed to drive. In addition the drivers should not be encouraged to drive for excessive hours or overload their vehicles as all of these could lead to unsafe travelling conditions.

Rolling stock management

Minimum standards have to be set and enforced for maintenance to ensure an adequate 'rolling stock'. A mechanism to ensure adherence to the standards also needs to be developed.

Institutional arrangements

An elaborate study is required to determine the best possible institutional arrangements — enforced through an ordinance — to implement these recommendations. A separate 'traffic force' could be established, for example, dedicated to ensuring the free flow and safety of traffic within Karachi and in its vicinity.

The users' suggestions about police/civic agencies

Ms Sarwat Iqbal, a teacher for special children who lives in Nasri Colony, also suggested that, "'ike others there should be system of accountability for traffic police, so that improvements can be introduced into the traffic system.' NS-3.11

Commenting about the role of the police, Mohammad Ibrahim Daad of Nasri Colony said 'our drivers are not well-trained and the police themselves also break rules, so the police department should be done away with altogether…at nighttime after travelling the area police snatch all the money that we have earned during the day…the control of the traffic system should be given to the army instead of the police.' NS-3.13

Additional possibilities: The KCR

The Karachi Circular Railway exists, along with right-of-way arrangements, and there is substantial potential in the upgrading and development of this system as part of a comprehensive integrated rapid transit system, in co-ordination with the road transport network. The present layout of tracks covers the major job-markets but does not reach a number of the main low-income settlement areas.

Branch extensions

The necessary branch extensions of the track could be laid, such as:

- 3km into Baldia Township
- 3.5km into Orangi Town
- 5km into the New Karachi area

Speed and punctuality

Possibly double-decker buses could enable better speed and punctuality, as would rationalized bus routes.

Possibility of light rail and bus ways

An inner-city tramway is also needed to cover a 5km stretch between Saddar and Jinnah Bridge/Kaemari. The track layout can continue to be at grade, however the possibility of conversion to light rail can be explored, on the basis of advantages/disadvantages. Before reaching any conclusions options for designated bus lanes and grade-separated bus lanes should also be considered.

The KMTP proposal

It has been observed by the URC that the corridor identified in the KMTP proposal does not generate traffic on its own, it is all through traffic. For this reason the passengers should be able to be accomodated on the KCR.

The users' suggestions about fares

Tanvir Shahzad, a BA student of Nasri Colony, has suggested that 'the fares should be in whole numbers, because the conductors tend to keep the change if it is only 25 or 50 paisas…in our home six people use public transport daily, and our total monthly expenditure on transport is about Rs2500 to 3000, whereas the income of the household is Rs12,000'. NS-3.9

Master planning issues

A number of recommendations deal with medium-term planning concerns:

Traffic plan

A full-scale traffic plan needs to be developed and implemented.

The Northern Bypass (NBP)

The NBP proposal has been accepted and is being implemented by the government, and it will help remove congestion from the inner city. The NBP proposal includes shifting the wholesale markets and related labour colonies that are along the sides of the bypass, so this portion of the proposal needs to be implemented to maximize the full benefits of the project.

The Southern Bypass (SBP)

The SBP proposal also needs to be implemented, but the residents presently settled along the proposed alignment have objected. These objections can be negotiated by offering incentives, such as permission for the commercialization of residential plots.

Oil pipeline

An oil pipeline needs to be laid from the National Refinery to the National Highway. At present, because there is no pipeline, 23,000 tankers have to ply through the city every day.

Inter-city passenger traffic

Proper terminals are needed at the three road-entry points of the city. A proper link with the railway also needs to be provided to serve this traffic. A fully integrated system needs to be planned and implemented using all forms of public transport.

The users' suggestions about profit-making tactics of drivers and conductors

'Drivers should not be allowed to wait for too long at any stop during the journey', suggested Mohammad Ibrahim Daad of Nasri Colony. NS-3.13

Taxi stands
Proper taxi stands need to be provided throughout the city and at railway stations and bus terminals.

Pedestrian- and cycle-friendly city planning
The overall planning of the city should be re-oriented towards achieving a pedestrian- and cycle-friendly traffic system. Bicycles can be encouraged by providing well-designed cycle-stands at the railway stations, for example in Calcutta there is provision for hundreds of bicycles with security at every railway station in the city. The central part of the city can be made pedestrian only with only public transport feeding certain well-defined areas in the centre.

Encroachments
The areas with exceptionally high pedestrian traffic can be developed in a proper manner, including the regularization of space for vendors and hawkers. Plans already exist, they just need to be considered for implementation.

Long-term policy-level proposals

At the policy level certain decisions are required for long-term solutions to the existing problems.

University-level transport education
Academic institutions are teaching western theory, and therefore not producing professionals who understand the users' point of view and the grassroot issues. The curriculum needs to be revised to re-focus attention on the socio-economic realities of the country. There is a need for more transport related course and also for course that could link sustainable livelihoods with transport.

Licensing policy
Licensing policies and mechanisms need to be strengthened, with adequate attention paid traffic and road signs. Drivers need to be educated about following signs and the design of signs needs to be standardized.

Phasing-out of auto-rickshaws
Auto-rickshaws can be replaced with more environment friendly vehicles.

Proposed actions to follow up
On the basis of the above recommendations the following immediate actions are proposed:

1. The initiation of a lobbying effort, thereby facilitating policy decisions which favour access to quality public transport for the poor. The sustainable livelihoods approach can be used to develop policy actions.
2. The preparation of detailed proposals for the Northern Bypass and the revival of the Karachi Circular Railway with a view to improving public transport for the urban poor.
3. The collection of further data and preparation of monitoring and update mechanisms to explore further the linkage of public transport and livelihoods issues. The mechanisms could be used by the administrative agency on transport (including graphical charts, plans, and diagrams).
4. More forums and workshops should be conducted to initiate the small-scale model partnership projects which can later be used to develop larger self-help ventures.
5. Identify expertise to work on the recommendations that have emerged from this study, such as academic institutions, the private sector, NGOs, and government facilities, such as the Heavy Machinery Moghulpura Factory (Lahore).

Concluding remarks

Approach

The application of an innovative, partnership-oriented, problem-solving approach, derived from the latest development concept of sustainable livelihoods (SL), is the hallmark of this research. The research process established a rapid result-yielding link between the various stakeholders involved in public transport activity in an effort to facilitate a service which would offer better access to and quality of transport services for the urban poor.

This is a relatively new approach to an already much-discussed and documented topic, the innovation being the more realistic and down-to-earth concept of sustainability, which advocates a logical and systematic derivation of solutions from within the context of a problem.

Application of core principles of SL

It can be deduced that the core principle of the sustainable livelihoods approach can be applied to the issues of urban public transport. There is scope for further refinement in the framework and its application.

Poverty-focused

This research focuses on low-income communities and issues related to transport which influence the livelihoods of the poor. The focus has moved from a general inert systems to a lively environment where actors are taking active part in resolving the issues.

Responsive and participatory

The research was conducted using participatory approaches and in response to the demands of the urban poor. This approach has yielded information that is qualitatively richer than would have been obtained using non-participatory approaches. The participation of the community and local partners has greatly enhanced the understanding of the problems and has driven the suggested actions.

Multi-level, micro, and macro

The research explored the macro-level factors which have influenced the livelihoods of the urban poor, and also the micro-level, which has a bearing on macro-level policy making and operations. The linkage between policy and practice was also explored. The historical perspective was taken into account to illustrate that these linkages not only work now, but they also worked in the past.

Conducted in partnership

Perspectives from the urban poor, regulators and the operators were explored. The key actors did discussed the problems in an open way which is in itself a positive step towards solution of the problems.

Sustainable

Special attention was given to learning from past and present policies and from operations that both worked or did not produce sustainable development in this case. It is highly likely that if the recommendations are followed a more sustainable transport system will emerge.

Dynamic

The socio-political dynamics in the past and in the present, linkages between changes at micro and macro levels, changing pattern of the city, and changing political context were also explored to understand which mechanisms might improve access to and quality of urban transport to the poor through partnerships.

Inadequate transport service

The findings show that the existing transport services in Karachi are inadequate, and the effects of this severely lack of transport impact alarmingly and directly on the livelihood opportunities of 30 to 40 per cent of the already deprived lower-income segments of the city (who in turn constitute more than 50 per cent of the total population). The long distances between the major blue-collar job markets and most of the squatter settlements leave residents with noalternative but to improvise with whatever is affordable and available – even at the current heavy cost of at least two deaths and scores of injuries per day.

Understanding contributions of public transport in sustainable livelihoods

Some of the key findings indicate that SL can be used to explore the contribution of public transport in:

- capital asset building by the poor;
- better understanding of vulnerability contexts in relation to transport;
- understanding of transforming structures (layers of organizations both in the private and government sectors) and how they effect poor; and
- understanding how processes (laws, policies, incentives) impact on the livelihoods of the poor.

Like any other urban system, the well-being of Karachi and the transport activity in this city are linked through a web of cause and effect relationships. This exercise has confirmed that the lifeblood of this city is essentially the port activity and the resulting gradual proliferation of industry, which has attracted and continues to sustain a total estimated population of at least 10 million people (unofficially believed to be close to 13 million). The port and industrial activity cannot survive without the directly transport-dependent availability of a huge blue-collar labour force. This labour pool is housed in the low-income squatter-settlements, colloquially called *katchi-abadis* and estimated to contain more than 50 per cent of the population of the city. These settlements are located so far from the major job markets, that there is virtually no other way to link them other than a mass-transit system. Public transport activity therefore clearly occupies a centre-stage, functioning as a two-way lifeline between the fundamental employment and residential activities which sustain Karachi.

Partnerships among key actors

The point of view of the users of public transport has evolved through this work, which is a significant contribution to the research. This proved to be the foremost source of understanding the nature and extent of the problem as perceived by the different actors. Relationships among actors, both formal and informal, were clarified during the research. A platform was created for different actors to share their views and understand each other's perspectives. This understanding could lead to more sustainable interventions at both policy and operational levels to improve public transport for the poor. The large buses are the cheapest transport at the moment and represent the only portion of the public transport activity which operates as a system, supposedly consisting of set routes and timings.The users of this so-called system are undoubtedly the party which has the most at stake. As they are largely low-income people whose livelihood opportunities are directly dependent on access to and the quality of the set-up. The secondary data available before this research was carried out was found devoid of any documentation of the point of view of the users. This further confirms the significance of this project's innovative approach.

Access and quality

Access and quality emerge as the basic criteria for evaluating whether the transport system (in its present form as well as in any of its future proposed forms), is helping or will be helping in the development of the city in a way which contribute towards the sustainable livelihoods of the urban poor. These two issues, by virtue of their own definitions, represent the experience of the users, who also possess the most tangible will to see improvements. (The public sector have almost completely withdrawn from this activity, while the overall unfavorable operating conditions restrict the transporters and operators to be worrying about little more than the survival of their business and related issues). Hence the underlying premise of this whole project – that the existence or non-existence of public transport activity is a direct determinant of the availability of sustainable livelihoods at all three levels: transit and the related support activities are a major source of blue-collar employment by themselves; there is a direct link between residential and livelihood-related activities of low-income people; and is therefore one of the foremost factors affecting the well-being and sustenance of the whole city, which includes citizens of other income levels as well.

Policy and practice

The root causes consist of certain grand policy decisions taken in the past. An analysis of the cause/effect inter-relationships provides important clues as to

what should be avoided or included in future planning, while the Current Situation Analysis highlights further details about all the participants (and hence potential partners), in the existing activity.

It is clear that that the policymakers lacked vision and an understanding of the reality on the ground. The transport sector is one of many sectors which suffers from this problem. It has also been demonstrated that the sustainability issues are inter-sectoral. Examples have been given about how the physical planning in the past is effecting the transport today.

Unstable democratic processes in the country have contributed to the continuation of out-dated and incompetent administrative practices. Frequently reported traits are poor coordination, duplication, incompetence, and corruption. These factors, whether actual or perceived, have led to a common perception that the civic institutions have collapsed. The transport sector, along with other sectors, has has also suffered from the effect of poor governance.

Conclusion

The research team feels strongly that this project has been useful as a first step in a more innovative and productive direction. This further accentuates the need for follow-up exercises, however, and the findings included in the report bear witness to the severe and immediate need to address the situation.

This exercise can therefore prove useful as a demonstration of the need for further exploration and intervention along the lines set out in the first phase. Phase 2 will facilitate further work in exploring the use of the sustainable livelihoods approach in other urban contexts.

References

Abbas, Zafar 'Bushra Zaidi: Five Years After' in The Herald, Herald Publications, May, 1990

Ahmad, M.S.'The Development of Transport', April, 1978

Baillie, Alexander F.'Kurrachee', Oxford University Press, 1997

Bakhtiar, Idrees 'On the Wrong Track ?' in The Herald, Herald Publications, September 1989

Federal Bureau of Statistics '50 Years of Pakistan in Statistics', 1998

Hasan, Arif (Urdu presentation delivered at OPP)"Pakistan mien Taraqqi aur isse Waabasta Samaji aur Ma'ashi Tabdeeli ka A'ml", 1999

Hasan, Arif 'Karachi's Godfathers' in Herald, [KAR-15]

Hasan, Arif 'Seven Reports on Housing', OPP-RTI Publication, 1992

Hasan, Arif 'The Growth of a Metropolis', in H. Khuhro and A. Mooraj (eds.), 'Karachi – Megacity of Our Times', Oxford, 1997

Hasan, Arif 'Understanding Karachi', City Press, 1999

Hoodbhoy, N.'KARACHI:KCR Closure Leaves People High and Dry', DAWN, Jan. 3, 2000

Ilyas, Mohammad 'Sharks on Wheels' in The Herald, Herald Publications, August 1991

Kamal, Ajmal 'Karachi ki Kahani' (urdu), Educational Press, 1995

Karachi Bus Owner's Assoc. 'Recommendations for the 9th Five-yr. Plan', 1997 (Apndx)

Khuhro, H. and A. Mooraj 'Karachi', Oxford University Press, 1997, and Qasim, Brig. (Retd.) S.S.A.'Public Transport in Karachi and its Problems', Chartered Institute of Transport (Pakistan Centre), April 1978.

Khuhro, H. and A. Mooraj 'Karachi', Oxford University Press, 1997, and Ahmad, M.S.'The Development of Transport', April, 1978

Lari, Y. 'Karachi', Oxford, 1996

Mian, Justice Ajmal 'Karachi Transport Commission's Report', Govt. of Sindh, 1982 (p.4)

Population Census 1998, Government of Pakistan, July,1998, however an estimate of 12.0 million is more popularly accepted in professional circles.

Qasim, Brig. (Retd.) S.S.A.'Karachi's Transport Problems', Nov. 1979

Qasim, Brig. (Retd.) S.S.A.'KTC as a Federal Corporation – 1977 to 1982', Nov. 1979, and 'Karachi's Transport Problems', Nov. 1979

Qasim, Brig. (Retd.) S.S.A.'KTC as a Federal Corporation – 1977 to 1982', Nov. 1979, and 'Karachi's Transport Problems', Nov. 1979

Qasim, Brig. (Retd.) S.S.A.'Public Transport in Karachi and its Problems', Chartered Institute of Transport (Pakistan Centre), April 1978.

Qasim, Brig. (Retd.) S.S.A.'Public Transport in Karachi and its Problems', Chartered Institute of Transport (Pakistan Centre), April 1978
The Daily 'DAWN', December 31, 1996
The Daily 'DAWN', June 10, 1997
The Daily 'DAWN', June 13 and 18, April 17, August 1, 1996, and 'The News', April 20, 1996
The Daily 'DAWN', June 18, April 17, August 1, 1996 and 'The News', April 20, 1996
The Daily 'DAWN', June 18, April 17,1996 and 'The News', April 20, 1996
The Daily 'DAWN', 20th January, 2000
The Daily 'DAWN', 3rd January, 8th January, 2000
The Daily 'DAWN', 8th January, 2000
The Daily 'DAWN", 20th January, 2000
The Daily 'News', 16th January, 2000
Urban Resource Centre: Surveys and studies on transport.
URC 'Forum', for the 'Users' (held at 'Dhani Bakhsh Goth
URC Forum, 'Transport Activity - The Role of the Administrative/Regulatory Agencies', March 29, 2000
URC Survey, 1999-2000
URC's Interview with the President of the Karachi Bus Owner's Association, Mr. Choudhry Ismail, February 16, 2000.
URC's Interview with the President of the Karachi Bus Owner's Association, Mr. Choudhry Ismail, February 16, 2000.
URC's Interview with the President of the Karachi Bus Owner's Association, Mr. Choudhry Ismail, February 16, 2000.
URC's Interview, President, Karachi Bus Owner's Assoc., Mr. Choudhry Ismail, Feb. 16, 2000.
URC's Interview, President, Karachi Bus Owner's Assoc., Mr. Choudhry Ismail, Feb. 16, 2000.
Waqar-ul-Haq, M. 'Manual of Motor Vehicles Laws', Nadeem Law Book House, 1999(p.178)
Waqar-ul-Haq, M. 'Manual of Motor Vehicles Laws', Nadeem Law Book House, 1999

Appendix 1

Considerations in developing checklists

Users from selected settlements

a. Personal data

Name
Age
Sex
Address/contact

b. Educational background

c. Nature of work

Place of work
Family size
Number of family members who use transport daily

d. Travelling time

Time and distance from home to bus stop
Waiting time at bus stop
Interchange; is more than one mode needed?
Time needed to complete interchanges

e. Environment

Waiting environment/ placement of bus stops present/desired
Environment inside bus or mini-bus
Hygienic conditions during travel
Seating and standing conditions
Women's/children's perspectives
Dealing with conductors and drivers
Music/horn/noise/smoke
Horns and cassette records

f. Health and safety

Getting in or out safely
Speed of vehicles
Single or double exit and partition for women
Impact on body or clothes
Experience of road accidents
Speed breakers
Pedestrian aspects

g. Modes and options

Accessibility of transport
Choice of travel and quality
Bus routes
Satisfaction with existing system in terms of quality
Willingness to pay more for better service
What options are available?
Why using present mode or route?
During emergencies, which services are available?
What about school children?
Do you occasionally use rickshaws or taxis?
What about transport for marriages and deaths?
Use cycles?

h. Finances

Daily cost of travelling one way and return
Monthly income
Monthly expenditure of transport or travelling

i. Corruption

j. Suggestions/ideas for improvements

Operators

a. Personal data

Name
Age
Sex
Address/contact
Family background

Educational background
Nature of work
Place of work

b. Finances

Tariff/fares
Capital investments
Running cost
Duty and taxes
Insurance
Purchasing process
Loans from bank or informal sector
Interest on loans

c. Major operational problem/issues

Law and order situation
Traffic rules/ dealing with traffic police
Nature of traffic violations
Role and responsibilities
Selection of drivers and conductors: criteria and working terms and conditions
Licensing producers
Major problems to operate transport
Horns and cassettes
Timekeepers and their systems

d. Operation and maintenance

Oil and petrol quality and spare parts
Road conditions
Fitness test
Operation and maintenance
Chassis/body-making process
Design of the vehicles

e. Corruption

f. Suggestions/ideas

Profiles of the transport workers (drivers and conductors)

- ***Personal data***
  Name
  Age
  Sex
  Address/contact
  Family background

- ***Educational background***

- ***Nature of work***
  Place of work
  Driving hours
  Terms and conditions of work

- *Living conditions*
- *Training*
- *Selection criteria*
- *Education level*
- *Working environment*
- *Facilities; somewhere to retire/bath/eat*
- *Salary or wages*
- *Use of drugs*
- *Experienced any accidents/story with impact on his life*
- *Dealing with traffic police*
- *How to improve traffic rules*
- *Nature of traffic violations*
- *Corruption aspects*
- *Suggestion/ideas*

Organizational profiles of transport associations

- *Name of organization*
- *Year established*
- *Registered*
- *Address/contact*
- *Background*
- *Number of members*
- *Procedure for membership*

- *Nature of activities*
- *Name and address of main office bearers*
- *Kept record of activities?*
- *Regular elections?*
- *Last elections were held on?*
- *Prepare reports/newsletters/progress reports*
- *Annual audit*
- *Benefits for members*
- *How helpful for the members*
- *Keep proper record/file of newspaper statements*
- *Need any technical support to improve working*
- *Hold regular meetings of general body*
- *Political affiliations*
- *Finances*

Regulators

- *Nature of the regulatory body*
- *Contact persons*
- *Address/contact numbers*
- *Area of operations/main task or mandate*
- *Dealing with transport operators*
- *Regulatory constraints*
- *Political interference*
- *Administrative interference*
- *Co-ordination problems with other government agencies*
- *Judicial procedures/law*
- *Rush hour options*
- *Monopoly*
- *Scheduling of operation of buses / mini-buses*
- *Time table and rerouting*
- *Rational routing*
- *Policy changes*
- *Financial services for transport operators / loan insurance*
- *Roads: existing roads and development of new network*
- *Problems of encroachments*
- *Development of bus terminals/workshops*
- *Reduce small vehicles and brings large buses*
- *Corruption aspects*

Citizen's initiative

- *Need for citizen's initiative*
- *Management structure or set up*
- *Development phases*
- *Finances*
- *Problem encountered*
- *Car parking project*
- *Nature of violations details with figures*
- *Monitoring system*
- *Results of the project*
- *Replication possibilities in low income areas*
- *Future extensions*

Appendix 2

Urban Resource Centre

FORUM

Urban Resource Centre is an NGO which carries out documentation, research and related activities about the various environmental issues of Karachi.

`FORUMS' are a regular feature among URC's activities, these are discussion gatherings in which various parties involved in any particular issue are invited for having a dialogue and formulating solutions.

Today's gathering is in connection with a research project on `Transportation' being conducted by URC in collaboration with the Water, Engineering & Development Centre (WEDC, Loughborough Univ., U.K.)

Brief Description of the Research

Investigations about the impacts on low-income communities, due to deficiencies of access and quality in transport activity, are being used to create a motivation for self-improvement among all the actors involved.

Five low-income localities, from four different corners and one from the central part of the city were visited. Over 100 interviews of low-income people – who are the major users of public transport – have been completed, revealing the impacts of transportation problems on their lives, specially in terms of negative repercussions on income-generating opportunities. Supported by field observations, interviews with other stake-holders, and a literature/historical review, these findings are a matter of concern, not just from the angle of the well-being of the low-income people (estimated to be about 50% of the total population of the city), but also because the deprivations of this major segment of the population affect the economy of the whole city, with fall-outs on all the remaining segments of the population as well.

A series of FORUMS and Workshops are now being used for establishing a dialogue among all the parties who together constitute the `providers' of transport, while a documentation of this whole process is also being carried out as a basis for influencing policy-level actions, and also for possible replication in other cities of the developing world.

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

Major Findings of the Survey

The basic assumption of the research has been confirmed by the research findings, that transport activity has a major contribution on the lives of the low-income segments, it is the means for them to connect with their livelihood sources, as well as other necessities, such as health and education services, markets, and social/recreation activities. The chart given below displays a brief review of the findings:

TRANSPORT ACTIVITY PROBLEMS ARE HAVING A NEGATIVE IMPACT ON THE LOW-INCOME SEGMENT, WITH REPURCUSSIONS ON THE ECONOMICS AND WELL-BEING OF THE WHOLE CITY

THE THREE PERSPECTIVES

USERS	OPERATORS	REGULATORS
Cost	*Fares*	*Lack of Funding*
Reliability	*Financing*	*Interference*
Safety	*Infrastructure*	*Lawlessness*
Environment /Comfort	*Inadequate Policies*	*Etc.*
Location	*Non-Implementation*	
Traveling Time	*Bhatta/Corruption*	
Impacts /Pollution	*Licencing*	
	Fuel Prices and Quality	

EXPLORATION OF SOLUTIONS THROUGH PARTNERSHIPS

Today's FORUM: `ADMINISTRATIVE AGENCIES'

The following three categories of issues are proposed as a basis for opening the discussion:

1. ***Alienation of Planning /Policy-making activity***
2. ***The Implementation Gap***
3. ***Proposals and Perceptions***

The intention of this research project, and the FORUM being conducted at present, is to try to set up a continuing dialogue process between all the parties dealing in `Transportation', as the first step in working together for solutions.

Further FORUMS and Workshops are expected to create a common communications parameter between all the parties involved in transportation activity.

Appendix 3

Profile of the users

The following is a sample profile of users based on the 108 interviews conducted under this study. The following is from information respondents in selected low-income areas. Approximately 29% of the respondents were female while 71% were male. Special arrangements were made to interview the women.

Age profile of the users interviewed

Age range	%
Under 18	20
19-25	18
26-35	26
36-45	16
46-55	16
55 plus	4

There is a significant proportion of children travelling by public transport.

Transport users per household

No. of users per household	%
1	31.91
2	18.64
3	17.02
4	23.40
5	14.89
6	2.13

Most household members use public transport.

Educational profile of the users	
Level	**%**
Illiterate	18
Primary	11
Up to higher secondary school	52
Graduate	13
Masters	6

Most of the users were involved in travel for study.

Appendix 4

Examples of the activities in research process

1. On 1st November 1999, Dr Sohail and Muhammad Younus discussed the scope and activities of the research programme.

2. On 2nd November 1999, Dr Sohail, Younus and Arif Hasan discussed the methodology and process.

3. On 4th November 1999, the URC Council discussed the proposal with Dr Sohail and endorsed its approval to carry on this research.

3. On 5th November 1999, Dr Sohail and Younus discussed the criteria and issues of the research. The meeting was also attended by Noorjhan and Adnan from URC

4. On 10th November Dr Sohail and Younus discussed the financial details of the research. Later on the draft technical details were also discussed with Arif Hasan.

Appendix 5

Considerations in selection of the settlements

A settlement (originating point)

1. Legal status of the settlement:

Karachi abadi / recently leased / regularized / notified / unauthorized

2. Public transport used by the people
3. A combination of transport used
4. Purpose of the transport

Work / emergency / visits / school

5 .Distance from city centre
6. Users in terms of variety of age and gender

List of the potential settlements

A) District West

Gulshan-e-Zia/Bihar/Ghaziabad/
New Mainwali Colony
Ittehad Town
Mahjir Camp
Rashidabad
Lal Bahar
Metrovile
Qabsa Town
Baba Bhit Island
Yousuf Goth Allah Wali

B) District Central

Mosa Colony
Rehmanabad
Phar Ganj
Bara Maidan
Siraj Colony
Azizabad Katchiabadi
Sohrab Goth afghan basti
Haji Mureed Goth

C) South

Nawa Lane
Dhobi Gatt
Muhammadi Colony
Chanser Goth
Manzoor Colony, Kashmir Colony
Punjab Colony
Shah Rasool Colony
Shireen Jinnah Colony
Shah Rasool Colony

D) East

Essa Nagir
PIB Colony Karachi abadis, Nishtar Colony, Liaquat Colony
Shah Faisal Colony
Zia Colony Korangi
Shanti Nagir

E) Malir

Rehri
Ibrahim Hiaheri
Bhitaiabad
Safura Goth
Ayub Goth
Memon Goth

Shortlist of the settlements for final selection

Haji Mureed Goth
Ibrahim Haideri
Phar Ganj
Rehmanabad
Gulshan Bihar
Manzoor Colony
Zia Colony Korangi
Bhitaiabad
Nawa Lane/Bhobi Ghatt
Baba Bhit Island
11 Shireen Jinnah Colony
Yousuf Goth Allah Wali North Karachi a
Shah Rasool Colony
Shah Rasool colony

Draft proposed list of the settlements

Zia Colony Korangi
Nawa Lane/Bhobi Ghatt
Shireen Jinnah Colony/ Shah Rasool Colony
Yousuf Goth Allah Wali North Karachi a

Appendix 6

Review of transport modes and infrastructure in Karachi

Modes			1729 - 47 Pre-independence	1947 - 57 Post-independence	1958 - 68 Martial Law	1968 - 78 Elected Government	1978 - 88 Informal growth	1988 - 99 Grand gifts
Road Transport								
Passenger	Government	City buses Intercity						
	Private	Buses City Intercity Mini-buses Taxis Rickshaws Cars Motorcycles Bicyles						
Freight	Government	Freight						
	Private	City Intercity Trawlers Tankers Bowsers						
Railway								
Passenger	Local intercity							
Freight	Local intercity							

Appendix 7

Monitoring tool 1

URC/WEDC

KARACHI TRANSPORT STUDY

PROGRESS REVIEW

‘Partnerships to improve access and quality of public transport for the urban poor’ – Case study: Karachi

RESEARCH / ANALYSIS			SYNTHESIS & COMPILATION				PRESENTATION	
Premise	Action	%	History	%	Current Situation	%	Report / Posters / O-H Tranparencies	
CONCEPT The basic assumption of this research project is that transport services make a significant contribution to the livelihood strategies of the urban poor. These contributions (positive and/or negative), determine the opportunities available for direct income generating activities, obtaining civic amenities (such as housing, education, health, recreation, etc.), and establishment of social networks (such as extended families), which can help in securing incomes and/or any other necessary goods and services. Variables which can be investigated to determine the availability of these opportunities can be classified into two broad categories – access and quality of existing public transport facilities. Investigation into these two categories of variables can be achieved by collecting data directly from the users, on the basis of their daily interaction with transport activity, and the resulting experiences/impacts – in terms of cost (fares), reliability (frequency and punctuality), safety (loading/unloading, speed/maneuvering, licenses), environment/comfort (stops, vehicle exteriors and interiors), location (routes and stops), traveling time (waiting/journey), etc. There is also the issue of indirect impacts of transportation activity, mainly due to the pollution created (noise and air pollution). Adverse effects on health, due to air and noise pollution, and sociological implications, comprise the secondary indicators of the contribution of transport activity on the lives of the urban poor. Another significant impact, though of a tertiary nature, is the overall effect of this relationship between the urban poor and public transport on the economic/industrial activity and well-being of the whole city, this is a matter of direct concern for all the citizens, not just the low-income affectees and concerned professionals. TARGETS The concept of the research has been translated into four distinct targets: 1. To first understand the situation (through data collection, analysis of information available, etc.) 2. Identification of possible improvements (through public forums, synthesis of suggestions, etc.) 3. Initiating a process of implementation (setting-up of a continuous dialogue system, through workshops, etc.) 4. Compilation of a format for replication elsewhere (by documenting the whole process of this project in a way which enables its application in other cities as well) METHODOLOGY Data collection sources required for achieving the first target, of understanding the situation, have been determined: ▪ Users' Interviews / Case Studies. Information yielded by this field research, about the indicators of the accessibility and quality of existing services, are the main thrust of this whole project (including supporting photographs) ▪ Literature Review. Books and reports about previously conducted works and projects on this subject hold information about the past (which can be used to derive lessons learnt through experience and/or trial and error, etc.), as well as the present (maps, facts and figures, charts, and analysis). ▪ Other Actors' Interviews. These are necessary for determining the relationships at work which end-up producing the present set-up, and also for locating the critical `control-points', which have the potential of serving as the starting points for any possible future improvements. The information gathered has to then be given a shape for facilitating the required understanding : ▪ Historical Analysis. Records and clues about the past, gathered from the literature review and from interviews of various individuals, has to be pieced together into a chronological format, and then analysed in order to identify continuing problems and issues, and finally synthesized into `lessons learnt'. ▪ The Current Situation. The users' interviews as well as the literature review can be the main source for covering all the aspects of the present scenario, supported by other actors' interviews and information gathered from visiting sites, related organizations and offices, etc.. Descriptive write-ups, photos, maps, charts, and other presentation techniques can be employed in order to expedite the benefit of this exercise. ▪ Appendices. Supporting information may have to be reproduced in full in some cases, in order to allow ready reference, it is therefore necessary to include a separate binding of `Appendices'.  The next target of identifying possible improvements is expected to be achieved by holding `FORUM's in which various groups of people shall be invited for holding explorative discussions and dialogues, the proceedings can then be analysed and compiled (alongwith suitable professional input, whether in the form of guiding the proceedings in the first place or refining the ideas into practical possibilities afterwards), and a final set of `Recommendations and Proposals' can be formulated.  Creating the momentum for a continuing process of review and self-improvement is the most important target of this project, for which carefully planned-out `workshops' are to be conducted. Finally, for allowing other cities to benefit from the exercise being conducted in Karachi, simultaneous documentation of the execution of the project has to be carried-out, in a format which can enable replication in other contexts.	USERS' INTERVIEWS This is the most significant portion of the whole project, consisting of three stages : ***Preparation*** – compilation of the questionnaire, determining the settlements to be visited, contacting the people, etc. ***Field Visits*** – written / audio recording of interviews, re-writing into legible script and typing (translation not included) etc. ***Analysis*** – sorting into categories, percentages	100 90 70	- Introduction - **1.0 - PRE-INDEPENDENCE KARACHI** - Victoria - Tramway - Busses - Policies 1.1 - Advantages 1.2 - Disadvantages 1.3 - Repurcussions **2.0 - POST-INDEPENDENCE : 1947-1958** 2.1 - New Pressures - Demographic - Economic 2.2 - Expansion of City (how/where) 2.3 - Transport Solutions 2.4 - Government Response 2.5 - Advantages/Disadvantages 2.5 - Policy Parameters (Implementation) **3.0 - 1958 – 68** 3.1 - Greater Karachi Resettlement Plan - Its Repurcussions on Transport - Initiation of the Karachi Circular Railway 3.2 - New Policy Directions 3.3 - Implementation Problems 3.4 - Privatisation - The informal response 3.5 - Solutions : their advantagesdisadvant. **4.0 - 1968 – 78** - Introduction of the Mini-bus - ETC. **5.0 - 1978 – 88 –` Informal Growth'** - Bushra Zaidi - / KRTC - / KTC 5.1 - advantages/disadvantages - The informal response - Power of the Transport Mafias **6.0 - RECENT CHANGES** - New Terminals / Bus Depots					
	OTHER ACTORS' INTERVIEWS Besides the collection of information on history as well as the current situation, the main purpose of these interviews is to understand the relationships between all the stake-holders in the transport activity: Preparation – identification of individuals to be visited, setting-up interviews, etc.	100						

Appendix 8

Monitoring tool 2

Activity	Date	Resource people	Remarks
1. Synthesis of available information			
a) Secondary data	10 December	Younus	Also co-ordinate andmonitor overall reasearch, fieldwork, review the interviews, co-ordinate with Sohail and develop technical details
b) Historic perspective	15 February	Arif Hasan	Also prepare executive summery, review report and quality control
2. Fieldwork		Zahid Farooq Noor Jhan Adnan Rizwan	
a) Pilot Phase first round of fieldwork	25 November	-Do-	Selection of settlement and testing of the methodology
b) Second round of fieldwork	26 November - 15 January	-Do-	100 interviews in settlement 6 interview with owners 10 interview with regulators
c) Organizational/ individual profiles	19 November - 15 January	-Do-	10 associations 10 transport workers 3 traffic police
3) Report writing and documentation	10 November - 15 January 1st Draft on 30 January	Asia Sadiq	Also document forums, develop route maps and review of secondary information
4) Publication	15 February	Dr Sohail	

Outline: Transportation Study

i. Introduction to the study

1. Background of the study

Relationships and outcome for DFID (Why this study?)
WEDC, URC Purpose: Critical issues and methodology (what will be?)

2. Research methodology
(Complete documentation of the process)
Criteria for settlements chosen

ii. Historical perspective

Development of the city and its relationship to transport service
Policy impact/central govt. policies/provincial response
Specific policies adopted in Karachi or policy changes
Major institutional development
Transport/planning link
Modes use routes
Routes developed

iii. Situational analysis

1.0 Issues identified

Accessibility, provision or lack of it quality
Quality of transport
Management
Relationship to city planning
Nature of plans by agencies
Environmental repercussions
Transport groups
Lack of terminus and other physical facilities like bus stops, footpaths etc.
Cost/prices
Routes: too many/too little information
Bus stops
Type of transport (mini-bus)
Longer plans like Lyari Express Way / Regulation & operate and maintenance
Institutional problems
Corruption
Police - transporter relationship
Users - transporter relationship
Organization of the transport

2.1 Identification of the various interest groups and users related to the transport sector (Institutional Setup)

Users types,
Transporters / operators
Regulators

2.3.0 Perspective of key actors

2.3.1 User's perspective on;

Travelling time
Physical and environmental quality of the facilities
Health and safety
Modes used
Financial aspect; prices

2.3.2 Operator's perspective on;

Travelling time
Physical and environmental quality of the facilities
Health and safety
Modes used
Financial aspects; prices
Trips/fares
Capital Investment/running costs
Duties and turns
Operate and maintenance issue
Insurance
Purchasing process
Loans / Interest on loans
Transport workers drivers and conductors perspective
(existing conditions and causes)

Transport association's perspective

3.3.0 Regulators perspective on;

Planning aspects
Resultant conditions and is causes / effects
Future trends

3.4.0 Citizens Initiatives/special projects

Planning aspects
Resultant conditions and its causes / effects
Future trends

3.4.0 Citizens Initiatives/special projects

iv. Recommendations

Trends (based on research results)
Policy level recommendations
Long term
Short term

Appendices

Question samples
Profiles of transporters / users / agency officers / citizens initiatives
Photographs of conditions / Photographs of interviews

Appendix 9

Monitoring tool 3

TRANSPORT FOR THE URBAN POOR IN KARACHI

Final Report

DRAFT OUTLINE AND COMPLETION DATES

SECTION (A) - **HISTORY**

- Central Govt. Policies
  (Implemented or not by Prov. Govt. ?)
- Policy Changes (incl. Reasons)

SECTION (B) - **CURRENT SITUATION**.

- Modes of Transport.

  *Numbers.
  *Organisations -History, Functions, Profiles.
  *Manner of purchase? Who sells? Who Buys? (Ethnicity)
  *Mechanism of Profit-making.
  *Maintenance Issues

- Regulating Authorities.

  *Types & Functions?
  *(Structure/Duties Powers?)
  *Relationship b/w Transporters & Authorities.
  *Formal.
  *In Formal.

- Services Sector to Transportation

  *Spare Parts, Stations (operation system), Conductors, Cafes, etc.

- Special Projects

  *Sami Mustapha's Proposal.
  *Metro Bus.
  *Contracted Buses.
  *Contract Taxis/Vans.

SECTION (C) - USERS & OPERATOR VIEWS.

*Women *Comfort?
*Why contracts? *Routing?
*Improvements? *Cost?
*Resulting Impact on Socio-Economic life & Health.
*Suggestions about Improvements

	COMPLETION TARGETS	DATES
1.	History' Draft.	Feb.4 Thur.
2.	Current Situation.(Outline at least)	Feb.11
3.	Complete Interviews.	Feb.18
4.	Summary of Analysis of Interviews (Computerised)	Feb.25
5.	Forums-all organizations. ("Do you want any addition?)	Mar.2nd
6.	Meetings / Officials (-Discuss results of survey).	Mar. 2nd
7.	Complete Report.	Mar.9 (or 16)

Appendix 10

Urban Resource Centre

3/48 Mualimabad Housing Society Jamal uddin Afghani Road off Khalid bin Walid Road Karachi 74800 Pakistan Tel. & Fax: 92 21 4559275, E-mail, urc@inet.com.pk Web: www.urckarachi.org

URC-FORUM

Partnerships to Improve Access and Quality of Public Transport for the Urban Poor

`THE ROLE OF ADMINISTRATIVE AGENCIES'

Invited Participants:

1.	Secretary Transport		9.	Planning Commission	PC
2.	Regional Transport Authority	RTA	10.	Karachi Municipal Corp.	KMC
3.	Traffic Engineering Buereau, KDA	TEB	11.	Cantonement Board	Cant.
4.	Traffic Police	DIG	12.	Karachi Circular Railway	KCR
5.	Master Plan & E.C. Dept., KDA	MP&ECD	13.	Excise & Taxation	E&T
6.	Public Transport Authority	PTA	14.	Communication & Works	C & W
7.	Mass Transit Cell KDA	MTC	15.	P & D Department	P & D
8.	Sind Katchi Abadi Authority	SKAA	16.	Transport Department KU	KU

Program:

1.	Introduction	10 mins.	▪ Research Objectives ▪ Important Findings ▪ Findings related to Administration Agencies
2.	Discussion on Issues	60 mins.	▪ Degradation in Quality of Public Transport ▪ Improvement of Co-ordination among Agencies ▪ The Implementation Gap ▪ Need for Monitoring / Data Collection ▪ Possible Alternatives & Improvements ▪ Policy and Planning Suggestions
3.	Conclusion	10 mins.	▪ Comments and Resolutions

Date & Venue:

DATE : MARCH 29, 1999
VENUE : Sindh Katchi Abadi Authority opposite Arts Council. Tel: 9211275
TIME : 2 : 00 P.M.

Appendix 11

Example of questions used in some interviews

TRANSPORT FOR THE URBAN POOR – KARACHI

Policy Decisions – Historical Background and Current Situation (Interviews)

1.	Choudhry Ismail Sahab	-	Bus Owners Association
2.	Brig. Qasim Sahab	-	Chairman, Chartered Inst. of Transportation
3.	Mr. Yahya Waliullah	-	Sindh Planning and Development Dept.

Important Queries :

(History)

1. Which of the policies in the past about public transport in Karachi have been successful in your opinion ?
2. Reasons ?
3. Can you please provide us with reference material about these policies ?
4. Which of the policies in the past have been most unsuccessful in your opinion ?
5. Reasons ?
6. Can you please provide us with reference material ?
7. Has there been any continuity in the policies made during various regimes ?
8. When and in what way have the policies been changing in the past ?
9. Has there ever been any professional input in the policy-making process ?
10. Has public opinion ever been explicitly included in the policy-making process ?
11. Can you describe the most vivid examples, in your opinion, of how changes in the public transport situation have had direct impacts on the economic /commercial activity in the city ?
12. During the Ayub era people were encouraged from the private sector to participate in the public transport sector, can you describe the details of the mechanism involved ?
13. Did the declaration of transport as an `Industry' have any impact on the situation?
14. What are your views about the new metro-bus service ?

(Current Situation)

15. What kind of a policy-making mechanism is best suited for Karachi in your opinion ?
16. Would you like to propose any specific policies or strategies which you think should be considered in any future plans for public transport policies ?
17. What do you think is the most important issue in connection with public transport activity in Karachi, and how could it be addressed at the policy-making level ?

(Implementation)

18. Have there been any examples of relevant policy decisions being taken which were not able to be implemented ?
19. What were the reasons for non-implementation in your opinion ?

Appendix 12

Photographs

Buses, bus terminals, gridlock













Buses, minibuses

Encroachment

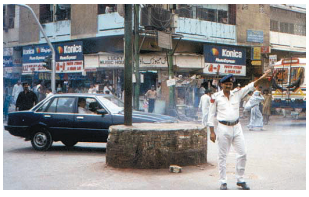
Overloading

Rickshaws




Cars, carts, tankers





Sewerage on the road

Circular railway