

# Analysis of and proposals concerning policy and research issues at the “CODATU Social Aspects of Transport Seminar” held in July 2001

## L'Analyse des questions du politique et de recherche, et des propositions touchant à ce sujet, discutées pendant la « Conférence CODATU sur les Aspects Sociaux du Transport » qui avait lieu en juillet 2001

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**ABSTRACT:** The paper reviews the presentations on the social aspects of transport that took place at a CODATU Regional Seminar in Pretoria during July 2001. The intention is to highlight some of the more critical issues as a foundation for the discussions on this topic due to take place in Lomé at the CODATU X Conference. This debate is expected to provide the basis of a future work programme by members of the Technical Committee on the Social Aspects of Transport.

**RÉSUMÉ:** Dans cet exposé on passe en revue les communications sur les aspects sociaux du transport faites pendant une conférence régionale de CODATU à Pretoria en juillet 2001. L'intention est de mettre en relief certaines des questions les plus critiques, qui serviront comme base des délibérations sur ce sujet pendant la Dixième Conférence CODATU à Lomé. Il est vraisemblable que ces délibérations fourniront la base d'un programme ultérieur de travail qui sera formulé par les membres du Comité Technique des Aspects Sociaux du Transport.

### 1 BACKGROUND

During the CODATU IX Conference held in Mexico City in 2000, it was decided that a CODATU work programme should be established, based on the deliberations of seven technical committees chaired by representatives from different countries. Progress emanating from these Technical Committees has been varied, but some successes have also been achieved. Technical Committee Six (Social Aspects of Urban Transport), chaired by Peter Freeman, chose to organise a regional seminar to address the social aspects of urban transport. This seminar was held in Pretoria, South Africa, in July 2001 at the same time and venue as the Annual South African Transport Conference.

The seminar was jointly chaired by Peter Freeman and David Maunder, co-authors of this paper, and the seminar was intended to raise some of the main issues pertinent to the theme of the Committee. It was intended that the papers presented would bring out some of the key issues for further discussion at CODATU X in Lomé and that a work programme could then be devised and researchers would be given an opportunity to take part in debating critical issues at the cutting edge of knowledge on the subject. The topics covered in Pretoria in-

cluded how the social aspects of transport are affected by funding constraints, a review of poverty and urban transport in Africa, the relationship between transport and land use in cities undergoing demographic change, crime and public transport, sustainable livelihoods, mobility and access needs and, finally, the importance of prioritising to meet the challenge of socio-economic diversity in cities.

As the seminar was held in Africa, there was a regional bias towards African issues, but the organisers were pleased with the extent of international participation that drew attendees from nine different countries and enabled a separate CODATU Technical Committee business meeting to be convened. A CODATU welcome dinner was held preceding the seminar where the guest speaker was Herman Singh, Information Technology Manager for the Standard Bank of South Africa. He addressed the participants on global changes and challenges that were occurring and gave his views on how developing countries such as South Africa would be affected by these trends.

### 2 SOCIAL POVERTY

Two keynote presentations introduced the seminar. The first of these was delivered by Xavier Godard from INRETS, France, who gave a paper based on a

report by himself and Lourdes Diaz through the Si-trass Association for the World Bank on the theme of "Poverty and urban transport, learning from African cities". The cities were Cairo, Dakar, Ouagadougou and Tunis. Godard points out that poverty is not just deprivation from economic resources, but also from social and cultural exposure. A special aspect of poverty is the impact of lack of mobility on social activities. Such an impact is likely to be greater for women who do not work, so gender is also a factor to be considered.

The paper examined the benefits of bicycle and moped transport (Ouagadougou is a moped city) as well as minibuses as an element of public transport systems. Cairo has a metro and Tunis a light rail system, and Godard concludes that such systems may benefit the poor when fare formulae are adapted and metro lines are partially located in areas with low-income populations. The key to success is a network designed to ensure social mixing. Godard emphasized the importance of developing appropriate indicators to measure the degree of social exclusion and the analysis of appropriate data (see Tables 1 to 4).

Table 1. Household consumption budget in Dakar (%), 1994-1996

CONSUMPTION	ESAM 1994-95	EDMC 1996	
Food		45.1	44.2
Clothing		11.3	10.2
Housing		14.3	16.8
Trspt equip, maintenance		6.6	7.3
CONSUMPTION	ESAM 1994-95	UEMOA 1996	
Health		4.4	1.9
Transport expenditure		6.8	8.2
Other		11.5	11.5
Total		100	100

Source: DPS

Table 2. Household consumption budget in Ouagadougou (%) 1996

CONSUMPTION CATEGORY	AVERAGE
Food	33
Clothing	6.3
Housing	11
Transport equipment	6.6
Health	4.2
Transport expenditure	15.6
Leisure	4
Education	3.3
Restaurant	9.7
Other	6.3
Total	100

Source: INSD

Table 3. Estimation of transport yearly expenses by consumption quintile, Dakar, 1996

Distr. by quintile of total expense	Total expense per household	Total expense per person	Transport expense per household
Quintile 1	681	62	36
Quintile 2	1322	133	59
Quintile 3	1956	227	88
Quintile 4	3109	421	177
Quintile 5	6868	1537	732
Total	2650	283	218

Distr. by quintile of total expense	Transport expense per person	% transport in total expense	Total transport expense Md FCFA
Quintile 1	3.3	5.3	1.5
Quintile 2	6	4.5	2.3
Quintile 3	10.2	4.5	3.4
Quintile 4	24	5.7	6.4
Quintile 5	164	10.7	25.2
Total	26	8.2	39

100 FCFA = 1 Ff; 100 FCFA ~ 0.20 US\$96

Source: DPS

Table 4. Estimation of transport yearly expenses by household consumption quintile, Ouagadougou, 1996

Quintile	1	2	3
Trspt monthly expense	2 076	6 082	9 915
Total monthly expense	34 930	62 934	83 263
Transport share (%)	5.9	9.7	11.9
Household size	7.0	6.6	5.8

Quintile	4	5	Average
Trspt monthly expense	14 669	43 392	15 184
Total monthly expense	106 768	198 661	97 154
Transport share (%)	13.7	21.8	15.6
Household size	4.8	4.0	5.6

100 FCFA = 1 Ff, 100 FCFA ~ 0.20 US\$96

Source: INSD

He concluded that a policy of integration of transport modes and the need to provide affordable transport for the very poor is key to alleviating poverty in its broadest sense. Unfortunately, in the cities reviewed, this type of knowledge has not been vigorously transferred or applied. Clearly, Transport Policy formulation needs to be imaginatively developed in the developing world to take account of the various types of traffic operated and hence information (which needs to be shared more effectively than presently) from around the world but especially from the developed world needs to be treated with circumspect before being implemented.

### 3 FUNDING ISSUES

The second keynote paper was delivered by Hament Patel of the South African National Department of Transport. This paper was jointly authored by Peter Freeman and Malcolm Mitchell of the CSIR. It reflects the need to devise an innovative transport funding system that can steadily reduce the effects of historical social deprivation.

Although the paper was based on needs in South Africa which has a particularly dysfunctional urban transport system due to the previous government's apartheid policies, the lessons extracted have international significance. A primary challenge facing urban transport in South Africa is one of a lack of affordable basic access for a large proportion of the population. 2.8 Million potential urban transport customers are "stranded" due to a lack of financial or physical access to the public transport system and hence walk or cycle long distances. This group is predicted to grow by 28 per cent to 3.6 million people by 2020 if nothing is done to address their mobility needs.

Sustainability is one of the key challenges facing transport authorities. It is important to meet customer needs and provide greater access and mobility for the poor but, at the same time, to ensure there is sufficient funding for upgrading and maintenance of the transport network. Where the government has set goals to roll back the level of social deprivation, this can be achieved within a unified budgetary system whereby taxation flows from private motorists, for example, can offset unaffordable public transport costs for the most disadvantaged urban dwellers. The core urban transport system proposed is a network of high volume, high frequency corridors in which public transport features highly. Customer needs for improved access and short trip times will be met by having regular feeder services to the high volume corridors, user-friendly transfer facilities and the possibility of differentiated services for users with specific needs. Authorities need to develop a bottom up approach to funding requirements based on a series of poverty indicators. A major issue in South Africa is to reduce the unacceptably long travel times for poor urban commuters who were historically forced to live long distances from their places of work. Travel times are too long and this reflects in a dismal utilisation of passengers by bus and minibus taxi.

#### 4 TRANSPORT AND LAND USE

In South Africa, especially in Johannesburg, Beavon (2001) shows that the poor have partially solved travel distance issues by voting with their feet and migrating to the inner city. This has led over time to overcrowding and lack of maintenance in apartment buildings, a proliferation of street vendors, inadequate funds for cleansing and other services and a marked increase in the level of crime. Department stores have closed and affluent shoppers now travel to the new shopping malls in the northern suburbs that are easily accessible by car. Hotels have also relocated as has the Stock Exchange and many commercial businesses (see Figures 1 and 2).

In 1998, the centre of Johannesburg was still home to 129 of the listed companies on the Exchange, but by 2000 only 38 remained. The issue under debate in South Africa currently is whether this trend can be reversed by investments in transport or whether investments should be tailored to support a city with new needs, a new land use pattern and a new structure. Beavon's conclusion is the latter.

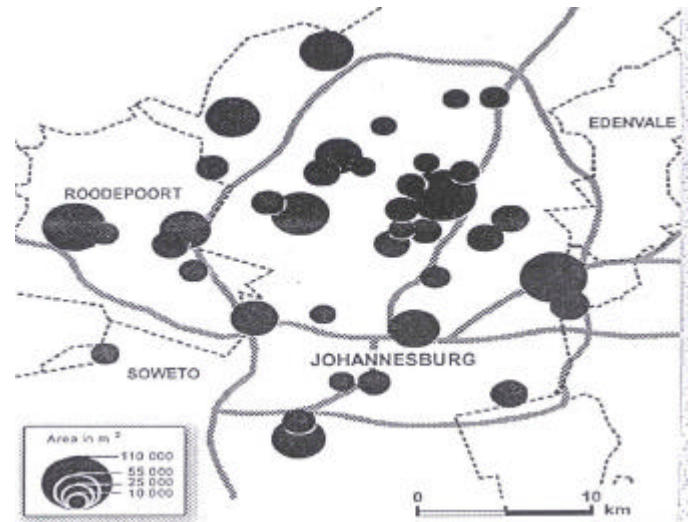


Figure 1. The distribution of shopping malls (with a minimum size of at least 10 000m<sup>2</sup>) in 1997

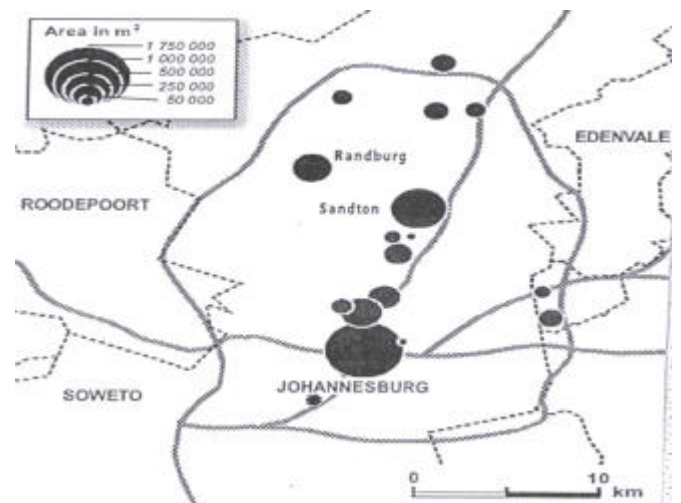


Figure 2. The distribution of nucleations of top-grade office space in and beyond the Johannesburg CBD, 1997

Decisions in regard to transportation which could have been taken were not implemented for a variety of reasons, including lack of leadership, and in the end the authorities were overtaken by events. The focus should now be on reducing crime on public transport and providing affordable transport to the relocated job and service opportunities. Beavon's paper also showed that we can learn from experience that parking policies that are too onerous can also increase the attractiveness of decentralised shopping

centres and that once property prices decline, it is difficult to reverse the trend.

Marrian (2001) presented a paper on focusing transport investment in urban corridors to influence future land use. He discussed strategies directed at four aspects, namely:

- the location of land uses/economic activity;
- the type of land use;
- the intensity and density of land use; and
- the design to influence functionality for public transport users and aesthetics.

## 5 CRIME ON PUBLIC TRANSPORT

Two papers were presented on crime. The first, by Azouz Begag of the National Centre for Scientific Research Laboratory, Paris, related urban violence in French cities to social frustrations, notably social exclusion and lack of accessibility. He refers particularly to the huge housing estates, *les banlieues*, located on the fringes of the big French cities, largely populated by Black North African immigrant families. Typically, these districts are dominated by high-rise estates catering for the poorest sections of the city. Begag blames the current public transport situation for exacerbating the level of crime in these areas and points out that the violence against buses is an expression of a sense of social deprivation and discrimination, a theme that was echoed by Oliver Page.

Page's paper was less philosophical and concentrated on crime prevention strategies such as community involvement, improvements in service levels and enhanced environmental design. These measures can be supported by better access control, appropriate monitoring mechanisms and improved communication with transport users.

Since this paper was delivered in Pretoria, Page and his team have published a book on crime prevention strategies on public transport, sponsored by the South African Department of Arts, Culture, Science and Technology.

## 6 SUSTAINABLE LIVELIHOODS, MOBILITY AND ACCESS NEEDS

This topic was introduced by David Maunder, who is working on an international project sponsored as a Knowledge and Research study by the UK Department for International Development. The team includes researchers from the Netherlands, Zimbabwe and Uganda.

The paper given in Pretoria outlined the objectives of the research that was, at the time, at an in-

ception stage. Sustainable livelihoods is a rather broad term used by an increasing number of development practitioners to describe a conceptual approach that helps to understand and analyse the livelihoods of the poor in a developing country context whilst being people centred, holistic and participatory. Historically, the livelihoods approach has been biased towards rural areas, but increasingly research is beginning to explore urban aspects and applications.

In this context, interventions with regard to urban mobility and access needs are of increasing significance. The study seeks to discern patterns of movement along corridors linking both rural and urban areas in both Zimbabwe and Uganda on the basis of economic strata, highlighting to what degree the poor's mobility (in contrast to other groups) is directed at livelihood pursuits and how they combine their mobility options with livelihood pursuits.

Maunder's paper indicated four research aims:

- the establishment of mobility and accessibility concepts and a viable research methodology for the study of mobility and accessibility within the sustainable livelihoods framework;
- documentation of the relative importance and nature of mobility patterns in relation to livelihood pursuits of stratified economic strata;
- exploration of the influence of rural-urban linkages on mobility patterns and how rural-urban differences affect mobility and livelihood options, especially of the poor; and
- identification of measures to ensure mobility and accessibility policies to enhance the poor's livelihood prospects.

In his presentation he outlined the programme of research that was to be implemented to achieve such aims and agreed to give an update in Lomé when the research would have been completed.

## 7 SOCIO-ECONOMIC DIVERSITY

The last topic discussed in Pretoria was a paper by Geetam Tiwari, Assistant Professor at the Indian Institute of Technology in Delhi. It addressed the issue of urban transport priorities but, in particular, meeting the challenges of socio-economic diversity in cities. The paper was based on a case study in Delhi, India.

Most Indian cities are characterised by high densities, intensely mixed land use patterns, short trip distances, and a high share of walking and non-

motorised transport. The transport and land use patterns found in these cities are so influenced by poverty and complexities that it becomes difficult to analyse their characteristics using the same indices as used for cities in highly motorised countries. This has led, according to Tiwari, to ample evidence of a mismatch between urban transportation planning methods and the growing transportation problems.

In Delhi, buses constitute less than one per cent of the vehicle fleet, but serve about half of all travel demand. They provide a low level of service due in large part to the extreme poverty of so many riders. However, even though buses carry half of all passenger travel, they receive no preferential treatment in terms of dedicated lanes or traffic management. Similarly, rickshaws and other non-motorised vehicles are ignored in traffic planning and road design.

Delhi does not lack availability of roads infrastructure in terms of space and length, but complexity arises due to the wide variety of vehicle types, including human, animal-drawn vehicles and bicycles sharing the same road space. Clearly, the extensive road network has not been developed to serve the mixed traffic present on the roads. Society pays a huge cost in terms of increasing congestion, air pollution and traffic accidents. Similarities may be drawn with Lagos, Bangkok and Jakarta.

Tiwari recommended meeting the specific needs of the most vulnerable groups by investments in pedestrian, bicycle and public transport friendly infrastructure. She showed how benefits of such investments can be estimated. For example, a relatively small investment in bicycle lanes can increase the road space for motorised traffic by 50 per cent on three lane roads.

## 8 CONCLUSIONS

The papers and discussion that ensued on the social aspects of urban transport suggest a paradigm shift is needed in the approach to the provision of transport for disadvantaged communities worldwide and developing countries in particular. A major failure appears to be ignoring or sidelining the really poor because basic transport for this group is largely unaffordable.

A key lesson is that the application of transport planning principles developed in first world countries may not be apt or be successful in developing country contexts where non-motorised transport forms often predominate.

There is a lack of realistic performance measures or indicators to monitor progress in improving urban transport for the poor. This is partly because poverty

still tends to be thought of only in economic terms, when in fact deprivation from social and cultural opportunities is almost equally as serious. Crime on passengers or towards public transport services/facilities can be a manifestation of such deprivation.

Sadly, mechanisms and institutional links appear weak to transfer knowledge of successful (and unsuccessful) experiences from one country to another. Many cities in the developing world therefore go through the same learning curve and make the same mistakes as their international compatriots. In addition, the institutional capacity in its broadest sense is frequently limited and the advice received is often inappropriate.

## 9 WAY FORWARD

This paper has been written to underpin the discussions on the social aspects of transport due to take place at CODATU X in Lomé around the theme of urban mobility for all. It is anticipated that these deliberations will lead to a technical work programme and a system to communicate wisdom and experiences to enable practitioners in the developing world to bridge the gap that currently exists and share ideas that can really make a difference.

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