

Making the connections between transport and housing security

Paul BARTER

Visiting Fellow, Department of Geography, National University of Singapore

Brian WILLIAMS

Human settlements officer and transport specialist – united nations human settlements programme

ABSTRACT: This paper investigates linkages between transport and housing/security of tenure issues for the urban poor, primarily in the cities of the developing world (the global South). There are significant connections between transport and housing for the poor but they tend to be inadequately understood. This pilot project reviewed the literature and canvassed views from key experts and stakeholders on linkages between urban transport policy and housing for the urban poor. The investigation of the issue has found a range of policy implications that flow from these connections

Résumé: Ce papier porte sur les liens entre transport et accès protégé au logement pour le pauvre urbain, essentiellement dans les villes du Sud. Il y a des liens significatifs entre transport et logement mais ils sont mal compris. Le projet pilote a examiné la littérature et teste les vues d'experts et d'acteurs sur les liens entre politique de transport urbain et logement pour les pauvres. La recherche a déjà identifié plusieurs implications de politique sur ces liens.

1 Introduction

This paper reports on a pilot investigation funded by UN-Habitat into the linkages between transport and housing/security of tenure issues for the urban poor in the cities of the developing world (the global South). A key aim was to establish whether there are grounds to promote further research and policy debate on the issue in both the transport and housing arenas. The results suggest that there are indeed significant connections between transport and housing for the poor and that many tend to be inadequately understood. Figure 1 shows the framework used here for the interactions between urban poor housing and transport issues. A range of policy implications flow from these connections. Methods included exploring the range of perspectives via interviews conducted at relevant conferences with key experts, activists and stakeholders¹

¹ Interviews by the author were conducted with participants at the Hangzhou preparatory meeting for Habitat+5 in October 2000 and at the UN-ESCAP/CITYNET Seminar on Transport and Communications in Kuala Lumpur, November 2000. Further interviews were conducted by Mr Chris Wilson with participants at a housing rights workshop organised by the Asian Coalition for Housing Rights (ACHR) and held at the Urban Resource Centre in Karachi in November 2000. Further views were obtained by the author through email

and a review of literature, including a search of documents held by non-governmental organizations (NGOs) active in the areas of housing rights or transport.

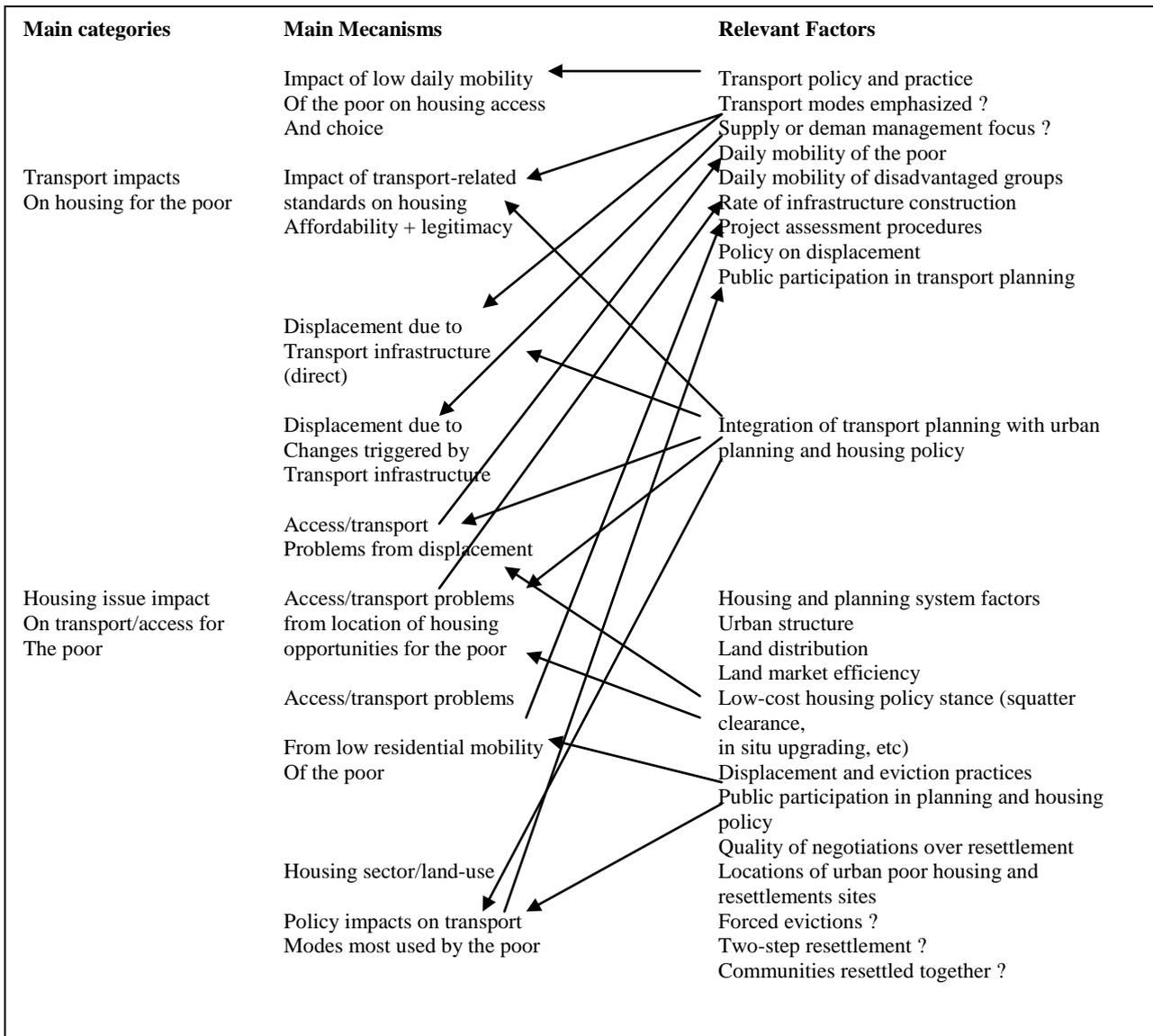
2 Key Background Issues

A number of important background issues are vital to an understanding of housing and transport connections. Firstly, poverty is understood here to be about more than lack of income but also involves poor housing, lack of access to services and lack of civil and political rights (Mitlin, 2001). In many cases an underlying cause of both housing and transport deprivation is a lack of power by marginalised groups and the concentration of power in certain hands.

One of the most important unresolved problems for many cities is housing for the poor. The UN estimates that more than one billion people worldwide are homeless or inadequately housed. A large proportion of these lack secure tenure to their homes. The 'squatter clearance' approach to 'squatter' settlements or 'slums' has long been rejected in the literature for causing undesirable outcomes and for being ineffective (Aldrich and Sandhu, 1995). Nevertheless, forced evictions continue in large numbers in many places.

exchanges with academic, professional and activist informants. Extensive information was provided by about 20 key respondents.

Figure 1 A simple framework for key linkages between transport and urban poor housing



Another key background issue is the well-known intimate interconnections between transport and urban land-use development (Hansen, 1959; Thomson, 1977; Newman and Kenworthy, 1989 and many others). Any major investments, policy changes or trends in transport will have their influence on urban land-use patterns. Conversely, major land-use developments have implications for transport demand (including which modes can easily serve the demand patterns).

There is also recognition of the impact of transport deprivation on poverty. For example, Hook (1998) argues that poor physical access to urban opportunities is not only an effect, but also a cause of poverty. Constrained daily mobility² is the key feature of the evictions continue in large numbers in many places travel patterns of the lowest income groups. People living in poverty, on average, cover less distance and make fewer trips but take more time to do so than higher-income people (Hook, 1998) and this severely affects their access to urban opportunities. In most societies women tend to face greater transport deprivation than men in the same social status groups (Grieco and Turner, 1997).

3 Dilemmas of housing security versus access

A central issue connecting transport and housing is that in many cities, particularly large cities, it has long been observed that low-income residents face a dilemma or trade-off between transport and security of tenure in affordable housing (see for example, Turner, 1972). In accessible parts of the city, the poor can often afford only precarious sites with insecure tenure. For example, a survey in central Bombay of pavement dwellers showed that 80% walked to work ('they were willing to live in congested dwellings without safety or security just so they could walk to work') (Gopalan, 1998). Conversely, affordable sites that have more secure tenure tend to be located on the inaccessible periphery of the urban area and involve high commuting time and costs. Most urban residents around the world face some form of this dilemma but it is most acute for the poor.

4 Transport Impacts on Housing and Housing Security for the Poor

Section 5 below will examine urban planning and housing impacts on transport or access for the poor but first we examine transport impacts on housing for the poor.

² The phrase 'daily mobility' (to be distinguished from 'residential mobility' or the ability to move house) refers to the ability of a person or group to move around on a day-to-day basis. The word 'access' refers to the ability of a person or group to reach a destination, service or good (whether or not this involves much movement). 'Accessibility' is a property of a place relative to other places, and refers to how easily it can be reached physically from another place or from within a region.

4.1 Direct displacement for transport infrastructure

It seems clear that displacement for urban transport infrastructure is significant in many cities. The World Bank has identified transport as the largest single cause of resettlement in its portfolio and transport accounted for 25 percent of projects active in 1993 that involved resettlement (World Bank, 1994). Transport is also often the primary cause of resettlement in multilaterals' urban and industrial development projects; for example, 67 percent of the resettlement in the World Bank's Surabaya Urban project is associated with its transport components (World Bank, 1996).

Transport related displacement is likely to be most intense where motorisation is increasing rapidly, population densities are high, there are weak legal institutions, and where large numbers of people have insecure tenure. Other factors influencing the incidence of evictions for transport infrastructure probably include transport policies that emphasise space consuming transport infrastructure. The most space-efficient modes of transport are high-capacity public transport, while the private car is the most space wasting.

It seems likely that people evicted for transport infrastructure are disproportionately from among the most vulnerable groups in society and to have particularly weak housing tenure. This is partly because low-income settlements naturally tend to be identified as low-cost, "easily cleared" alignments for new transport routes (Gannon and Liu, 1997). In addition, a common location for informal settlements is on linear reserves of land (usually state owned) that have been earmarked for infrastructure of some kind, and which are particularly attractive for transport projects. It is particularly difficult, if not impossible, for settlers to gain security of tenure on such infrastructure reserve land (for example, Mumbai's railway dwellers discussed by Patel, 1999).

4.2 Minimising displacement for transport infrastructure

Ideally, we should seek to minimise the number of households displaced as an integral feature of infrastructure policy and practice. Reforms to assessment procedures should help, such as the suggestion that cost-benefit assessments should take explicit account of a much broader range of impacts on communities, beyond the immediate cost of buying and clearing land (Hook, 1994). Good models for resettlement policies (provided that they are implemented in practice) can be found in the improved involuntary resettlement policies of multilateral lending agencies which generally have strong language seeking to minimise displacements. For example, the Asian Development Bank's (1995) policy on involuntary resettlement states, '... that involuntary resettlement be an integral part of project design, dealt with from the earliest stages of the project cycle' (p.10) and 'The

absence of formal legal title to land by some affected groups should not be a bar to compensation' (p.11).

4.3 Resistance to displacement and negotiated outcomes

Inevitably, evictions and displacements for transport projects have provoked resistance in many places. The size of some transport projects can bring some benefits if the glare of attention prompts a better approach to resettlement. The involvement of international organisations of various kinds can also provide activists with leverage if there is an opportunity to lobby these actors or other governments who can influence them.

Increased commitment to negotiating with threatened communities is one of the beneficial outcomes of better security of tenure and respect for housing rights. This should also bring transport benefits to the communities concerned, since such negotiations tend to take access into account in their site preferences. The case of the railway dwellers of Janjur Marg in Mumbai provides an example. In this case, 900 families were able to negotiate effectively with the authorities, resulting in relocation to an accessible location of their choice, with transit accommodation on the same site as their eventual houses and with the entire community kept together (Patel, 1999).

A lack of openness in transport planning is a major obstacle to achieving fair negotiated outcomes for low-income communities threatened for transport projects. Open, transparent, consultative approaches to transport planning are rare. Community organizations have difficulty obtaining timely information on projects that threaten them. The traditional mistrust by many transport planners of community involvement needs to be overcome.

4.4 Increasing housing choice through greater mobility for the poor

In recent years there has been heightened attention in the international development community to the daily mobility for the poor and a growing consensus on a core set of policies for increasing mobility and access for the urban poor (Hook, 1998; World Bank, 2000; Koster, 2000). For example, increasing access to affordable public transport and bicycles could increase the opportunity space of poor people. All else being equal, expanding the level of daily mobility that is affordable to the urban poor should expand their shelter options and reduce the extent to which they are forced to live in precarious and insecure locations.

However, caution is warranted when seeking mobility increases because if the mobility of higher-income groups increases faster than that of the poor (as is all too likely) then land-use changes and the undermining of low-cost modes of transport can harm access levels for the poor (Manning, 1984). If attempts to achieve greater

mobility in low-income cities are to help the poor then they must not focus on private vehicles (Linn, 1983). This implies that inequity in mobility is fundamentally interlinked with inequity in housing access.

4.5 Impacts of transport-related standards and guidelines

Excessively high, often car-oriented, standards and requirements for transport infrastructure in building or urban design codes can significantly raise the cost of new developments, further taking them beyond the reach of the poor. Examples include minimum road width standards, minimum set-backs of structures from the road and minimum parking supply requirements. The effects of these standards are analogous to the impact of unrealistic housing design standards, which have similar cost impacts (Mabogunje et al., 1978).

Such standards may both reflect and affect attitudes to low-income settlements. They may be used to legitimise or rationalise policies of removing 'sub-standard' housing and reinforce negative attitudes to informal settlements. Unrealistically high standards may place legal barriers in the way of regularisation or legalisation of low-income settlements. Instead of setting one-size-fits-all standards an alternative approach would be to tackle specific problems on a case-by-case basis in negotiations. Vernacular settlements that have obtained secure tenure can then be upgraded in-situ. 'Land readjustment' techniques can also provide adequate rights of way and common facilities in low-income settlements without wholesale eviction.

4.6 Other transport impacts on housing security

A major problem associated with lack of tenure - and a key link between transport and the tenure campaign - is the fact that lack of secure tenure often prevents low-income residents from benefiting from improvements in transport infrastructure or services that increase the accessibility of land parcels and which may lead to increases in land-values. For renters without protection against rent increases and for others without secure tenure to the housing that they occupy, increases in land values are a direct threat that may lead to their eviction and the 'gentrification' or redevelopment of the area. Increased tenure security is vital to allow the poor to benefit from transport improvements in their vicinity.

Certain transport-related policies can help slow or prevent gentrification, such as in Surabaya in the 1980s where a conscious decision was taken to not provide four-wheeled vehicle access into low-income areas in the inner city. The policy is said to have been successful in slowing gentrification (Prof Johan Silas, interview, Oct. 2000). Variations in other transport-related standards may also have similar potential.

5 Housing Policy Impacts on Transport for the Poor

This section looks at ways in which changes or interventions in housing policy and urban planning can potentially impact access and transport for the urban poor.

5.1 Impacts of the location of urban poor housing

The location of affordable low-income housing and the policies that affect it can have a significant impact on the transport (access) disadvantage faced by low-income households. This fact needs to be considered in a variety of policy contexts. Greater efforts need to be made to increase the chances that low-income housing will be located in locations that are accessible to income-generating and other exchange opportunities.

Coarse grained income-based segregation of housing locations, with rich and poor living far from each other, are likely to cause greater access inequity than finer grained patterns (Stretton, 1975: 106). A particularly problematic pattern appears to be where most of the poor are in peripheral areas of large cities. There is some evidence of very time-consuming commutes for low-income people in certain cities of the South, such as Sao Paulo and Mexico City (Poole et al., 1994; Gannon and Liu, 1997). In some cities there is a high incidence of long walking trips, especially in Africa (Godard, 1997).

Policy can exacerbate market-based pressures for the poor to be pushed towards urban peripheries. The most obvious example is involuntary relocation to inaccessible locations. Many examples were encountered in this pilot study. For reasons of cost, governments frequently site housing for low-income households (including relocation sites) in peripheral locations. The sudden wrenching nature of such relocations tends to make transport-related problems more severe, including loss of jobs or income from informal enterprises, increased travel time and costs, and loss of community ties (Immers and Bijl, 1993 cited by Hook, 1998; Boonyabancha, 1983). A further access-related problem is that many resettlements involve two steps, with the people first being moved into temporary accommodation and then only later to a permanent site. This further multiplies access problems and transport disruptions, especially if neither transit accommodation nor eventual resettlement sites are close to each other or to the original settlement (Patel, 1999). Lack of accessible employment and other facilities prompts many of those who are resettled to soon return to locations close to their former residences and workplaces (Fernandes, 1998; Murphy and Pimple, 1995).

5.2 Impacts of other aspects of urban structure

Urban planning and housing policy can affect accessibility and transport for the poor indirectly via their impact on the viability of the modes of transport

that are most important to the poor, namely walking, cycling, other non-motorised vehicles (NMVs) and public transport. Only rarely have debates about urban land-use policy effects on transport included an emphasis on the implications for the urban poor or possible synergies with urban poor housing policy. The land-use patterns of low-income cities tend to be well suited to allowing adequate access with a low level of daily mobility, as a result of high urban densities, intense mixing of land-uses and a high proportion of jobs located in inner areas and in concentrated corridors along main roads (Thomson, 1977). Unfortunately, land-use trends in many cities are tending to undermine these pro-poor land-use features (Hook and Replogle, 1996). As motorisation rises, developers increasingly locate new developments to suit access by private vehicle, even if this renders them less accessible for public transport and non-motorised transport (Manning, 1984). Planning and housing policy-makers also often view 'traditional' or vernacular urban fabric in a negative light as being backward, associated with poverty, unsuited to modern modes of transport and in need of removal. Both access-oriented transport policies and a greater emphasis on in-situ 'slum' upgrading policies, as urged by many housing sector specialists, would do much to preserve the traditional access-oriented mixed-use urban fabric.

There is debate over the potential for land-use planning efforts to play an explicit role in achieving transport policy goals in the South. Successes in integrating land-use and pro-transit policies in Hong Kong, Singapore and Curitiba, Brazil are often seen as exceptions among many failures. One policy with potential is for densification via transfers of development rights (and/or the relaxation of floor area ratio or plot ratio standards) the proceeds of which helps to fund social housing. This is done in the Brazilian cities of Sao Paulo and Curitiba. Ideally, the densification would be located in highly accessible, transit-oriented locations as would the social housing but this has not always happened in these Brazilian examples (Acioly, 2000). Similarly, the supply of accessible yet affordable housing could be boosted by more widespread use of land-readjustment or land-sharing (Lloyd Jones, 2000). This also has the important advantage of resettling people on-site.

5.3 How will greater security of tenure affect transport?

We should also consider what would be the transport implications of a widespread increase in security of tenure for urban poor households, as advocated by many in the housing rights arena and UN-Habitat's Global Campaign for Secure Tenure. Insecure tenure increases the likelihood of involuntary resettlement for transport infrastructure and reduces the ability of affected households to obtain proper relocation assistance and compensation. A widespread lack of security of tenure probably reduces the incentive for transport planners to minimise displacement. More secure tenure may also

encourage communities to invest more in improving their local access infrastructure and services, such as local footpath improvements (including covering drains), local access roads, etc. This is by analogy with other self-help improvements observed to take place when security of tenure improves.

6. Importance of the Issue and Policy Implications and Recommendations

The draft paper prepared for UN-Habitat as a result of this pilot study provides a long list of policy suggestions. Here we reproduce only the highlights. This paper has discussed two main aspects of the neglected interface between transport and housing security for the poor: firstly, several transport influences on housing issues and secondly, housing issue influences on transport/access for the poor. So firstly, as a general point, a number of reforms suggested here involve improved integration between transport policy and planning and housing policy and planning.

Secondly, the discussion suggests a number of reforms in the transport policy realm that can affect the housing arena. Transport infrastructure agencies need 'best-practice' policies and practices on involuntary displacement. This should include policies that conform to international housing rights standards to minimise resettlement (even for communities with weak tenure). Project assessments need to take full account of the range of impacts on people who are relocated. The transport planning process should be more open and always include negotiation with affected communities in a timely, sincere and open fashion. Transport-related guidelines and standards for residential areas can be reviewed to adopt a more realistic, flexible, case-by-case, performance-based approach. We should also promote community-based access and transport improvements which increase legitimacy of settlements and hence strengthen informal tenure. In theory, displacements may also be reduced if we take greater account of the space consumption of transport modes in

transport policy and promote space-saving modes. Transport policy may also offer tactics that can slow or prevent gentrification, including that triggered by transport changes.

Thirdly, there is a need to focus on policy and practice on low-income housing and in urban planning that have impacts on transport and access for the poor. For example, we can try to protect existing access-enhancing land-use patterns, promote and protect mixed land-use patterns, and focus dense development in locations well-served by public transport, while possibly even linking densification with increased affordable housing in accessible or transit-oriented locations. Stronger efforts are needed to increase chances for low-income housing in locations that are accessible to income-generating opportunities and services. Possible mechanisms to achieve this might include strict accessibility guidelines on the location of public housing for the poor, sites and services projects and resettlement sites. Setting planning goals to reduce income-based spatial segregation of housing location or make it finer in scale should also help.

Finally, in many places reforms are particularly needed to resettlement practice, including resettlement due to transport infrastructure. These require more attention to transport and access dimensions in order to reduce accessibility problems for the poor. A greater emphasis on in-situ upgrading rather than eviction would go some way to addressing these issues. In fact, respect for housing rights requires a range of changes such as ensuring negotiated resettlement solutions with all displaced communities including those with weak tenure. This requires encouragement of community organising in low-income communities. In addition, reforms need to tackle the location of relocation sites and transit accommodation and, among other things, make sure that they are within a short distance of the original community, keep established communities together in the relocation process and avoid two-step resettlement whenever possible.

References

Acioly, Claudio C. Jr. 2000. "Can Urban Management Deliver the Sustainable City? Guided Densification in Brazil versus Informal Compactness in Egypt", in Jenks, M. and Burgess, R. (2000) *Compact Cities: Sustainable Urban Forms for Developing Countries*, London and New York: Spon Press, 127-140.

Aldrich, Brian C. and Sandhu, Ranvinder S. (eds.) 1995. *Housing the Urban Poor: Policy and Practice in Developing Countries*, London: Zed Books.

Asian Development Bank. (1995) *Involuntary Resettlement, ADB Policy Paper RI-79-95* (August 1995) (Manila: Asian Development Bank).

Barter, P.A. (2002 forthcoming) "Transport and Housing Security in the Klang Valley, Malaysia" *Singapore Journal of Tropical Geography* (accepted for special edition on evictions in the tropics).

Boonyabancha, Somsook (1983) 'The Causes and Effects of Slum Eviction in Bangkok' in Angel, S., Archer, R.W., Tanhiphat, S. and Wegelin, E.A. (eds.) *Land For Housing the Poor*, Bangkok: Select Books, 254-280.

Fernandes, Kenneth (ed.) (1998). "Forced Evictions and Housing Rights Abuses in Asia" *Second Report 1996-97, Eviction Watch Asia*, Karachi: CP Press

Gannon, C. A. and Liu, Z. (1997) "Poverty and Transport" (discussion Paper, TWU Papers TWU-30), Washington DC:

Transportation, Water and Urban Development Department (TWU), World Bank.

Godard, X. (1997). "Transport and Mobility Strategy for Urban Poverty Reduction: The Western African Experience" a paper presented at the International Forum on Urban Poverty, Florence, 9 - 13 November 1997: United Nations Centre for Human Settlements (Habitat).

Gopalan, Prema. 1998. (1998). "Circumscribed Existence: Women's Mobility and Settlements Development." (A note prepared for discussion at the SUSTRAN Network General Assembly, June 2 - 5, 1998, Manila.) Swayam Shikshan Prayog - SSP, Mumbai.

Grieco M. and Turner, J. (1997) "Gender, Poverty and Transport: A Call for Policy Attention" a paper presented at the International Forum of Urban Poverty, Florence, November 1997: United Nations Centre for Human Settlements (Habitat).

Hansen, W. G. (1959). "How Accessibility Shapes Land Use." *Journal of the American Institute of Planners*, 25, 73-76.

Hook, W. (1994). Counting on Cars, Counting Out People: A critique of the World Bank's Economic Assessment Procedures for the Transport Sector and their Environmental Implications (ITDP Policy Paper 1-0194), New York: Institute for Transportation and Development Policy.

Hook W. (1998) Unpublished draft document on Transport and Development Policy for the United Nations Development Program (UNDP, New York: Institute for Transportation and Development Policy

Hook W. and Replogle, M. (1996) 'Motorization and Non-motorized Transport in Asia: Transport System Evolution in China, Japan and Indonesia'. *Land Use Policy*, 13 (1), 69-84.

Immers B. and Bijl, J. (1993) "Slum Relocation and NMTs in Bangkok" Transportation Research Board Paper#93CF105, Transportation Research Board. Washington, D.C.

Koster, Jan Herman (2002) "The Delft Low-Cost Mobility Statement", *World Transport Policy and Practice*, 6 (3), 18-20.

Linn, J. F. (1983) *Cities in Developing Countries: Policies for their Equitable and Efficient Growth*. Oxford: World University Press.

Lloyd Jones, Tony. 2000. "Compact City Policies for Megacities: Core Areas and Metropolitan Regions", In Jenks, Mike and Burgess, Rod (eds.) (2000) *Compact Cities: Sustainable Urban Forms for Developing Countries*, London and New York: Spon Press, 37-52.

Mabogunje, A.L., Hardoy, J.E. and Misra, R.P. (1978). *Shelter Provision in Developing Countries: The Influence of Standards and Criteria*, Chichester: John Wiley.

Manning, I. (1984) "Beyond Walking Distance: The gains from speed in Australian Urban Travel," Canberra: Urban Research Unit, Australian National University.

Mitlin, D. (2001). 'Housing and Urban Poverty: A Consideration of the Criteria of Affordability, Diversity and Inclusion', *Housing Studies*, 16 (4), 509-522.

Murphy, D. and Pimple, M. (1995): "Eviction Watch Asia: Forced Evictions and Housing Rights Abuses in Asia", Asian Coalition for Housing Rights and Urban Poor Associates, Quezon City, Philippines.

Newman P. and Kenworthy, J. and Laube, F. (1999): "The Global City and Sustainability – Perspectives from Australian Cities and a Survey of 37 Global Cities" in Brotchie, J. Newton, P. Hall, P. and Dickey, J. (1999) *East West perspectives on 21st Century Urban Development: sustainable Eastern and Western Cities in the New Millennium*. Aldershot: Ashgate.

Patel, Sheela (1999) " Revisiting Participation: 'Win-Win' Strategies in Negotiations with Railway Authorities and Squatters," Mumbai, India, *Transport and Communications Bulletin for Asian and the Pacific*, No. 69, 79-87.

Poole et al., (1994) *Moving People: Transport Policy in the Cities of Brazil*, Ottawa: International Development Research Centre.

Stretton, Hugh (1975): *Ideas for Australian Cities*, 2nd edition, Melbourne: Georgian House.

Thomson, J. M. (1977) *Great Cities and Their Traffic*. London: Victor Gollancz Ltd.

Turner, J.F. (1972) "Housing as a Verb", in Turner, J.F. and Fichter, R. (eds.) *Freedom to Build*, New York: Collier MacMillan.

World Bank, (1994) "Resettlement and Development" in *Bankwide Review of Projects Involved Involuntary Resettlement 1986-1993* (Env. Dept., 1994)

World Bank, (1996) *Sustainable Transport: Priorities for Policy Reform*. Washington DC: World Bank.

World Bank, (2000) *Draft Urban Transport Strategy Review*, As Revised on 16 October 2000 <http://wbln0018.worldbank.org/oed/oeddoelib.nsf/3b01efb621e6553785256885007d98b9/13> (last accessed 11 Jan. 2001).