

Incorporating informal operations in public transport system transformation: the case of Cape Town, South Africa

Incorporando operações informais às transformações em sistema de transporte público: o caso da Cidade do Cabo, África do Sul

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Abstract

Efforts in Cape Town to bring about a fundamental transformation of the existing fragmented and relatively dysfunctional public transport system to a comprehensively planned 'integrated rapid transit' system, which includes the introduction of bus rapid transit services as a key component, have encountered certain institutionally embedded obstacles. This paper briefly outlines the nature of these problems, focusing in particular on the difficulties experienced in engaging with, and effectively incorporating, informal minibus-taxi operations which serve a significant segment of the city's public transport passenger market. It seeks to draw out the main policy implications, as well lessons which might be taken up elsewhere, in other initiatives to address the differentiated mobilities and travel patterns which shape the 'urban transport divide' in many cities of the 'global South'.

Keywords: Integrated rapid transit system. Cape Town. Public transport system.

Resumo

Os esforços na Cidade do Cabo para promover uma transformação fundamental do fragmentado e relativamente ineficiente sistema público de transportes existente a um amplo e planejado sistema 'integrado de trânsito rápido' ('integrated rapid transit' system), que inclui a implementação de serviços de ônibus de trânsito rápido como componente chave, tem encontrado algumas barreiras institucionais. Este artigo discute brevemente a natureza desses problemas, focando especificamente nas dificuldades encontradas na tentativa de incorporar efetivamente operações

informais de microônibus, que atendem a uma parcela significativa do mercado de passageiros do transporte público da cidade. O objetivo é explicitar as principais implicações em termos de políticas públicas, bem como lições para implementações futuras, em outras iniciativas que abordem mobilidades e padrões de locomoção diferenciados que dão forma à 'exclusão no transporte urbano' (urban transport divide) em várias cidades do hemisfério sul (global South).

Palavras-chave: Sistema integrado de trânsito rápido. Cidade do Cabo. Sistema de transporte público.

Introduction

The presence of relatively extensive informal or only partially regulated public transport services¹ characterises many cities in sub-Saharan Africa, as well as other regions in the 'global South'. In probably a majority of such cities, these informal operations which involve the use of vehicles ranging from buses of various sizes, through converted trucks to sedans and three or two-wheeler motorised cycles - offer the only effective, or at least the dominant, form of public transport available to their residents. While they can provide a flexible and highly demand-responsive service at affordable cost, generally without public funding, such operations also generate significant problems from the perspectives both of their passengers and of urban authorities, including excessive and sometimes violent 'on road' competition for fares which leads to poor and unsafe driver behaviour, inadequate provision for the maintenance, insurance and eventual replacement of vehicles, and exploitative labour practices, among other negative features.

Some African cities are currently mounting initiatives to improve or transform their public transport systems, generally through the introduction of planned and regulated, 'integrated' services intended to enhance the travel experiences of 'captive' users unable to access private motorised transport (PMT) modes, and possibly also to persuade 'choice' users who do have such access to switch to public transport. In a number of cases – specifically in Lagos, Dar es Salaam and Johannesburg, Cape Town, Port Elizabeth, and Pretoria in South Africa – the planned installation of a bus rapid transit (BRT) network constitutes a key component of such initiatives, often modelled at least to some extent on the Latin American experience represented by the widely acclaimed *Transmilieno* project in Bogota, Colombia. In various ways, and probably more acutely in certain contexts than in others, these proposals for systemic transformation or improvement pose the questions of whether, and how, existing informal public transport operations might or should be incorporated into the process.

This paper briefly outlines the highly specific form this issue has taken in Cape Town, which is seeking to establish an 'integrated rapid transit' (IRT) system, including the installation of a fullspecification BRT network as a key component, in place of its currently fragmented and relatively dysfunctional array of public transport services. It identifies certain critical problems embedded in the present institutional framework which have bedevilled the process and seeks to draw out the more general implications for policies or strategies to promote the transformation of public transport systems as lessons which might be taken up elsewhere.

Public transport system transformation in Cape Town: a case for rethinking its nature and scope?

Metropolitan Cape Town, with a population of some 3.4 million and a local economy estimated to produce output of about R40 billion² in 2007, can be considered to be comparatively well-endowed with transport infrastructure and public transport services by the standards of many cities of the 'global South'. Table 1 summarises key characteristics of the city's present transport system, while Figures 1 and 2 shows its geographic disposition and the essentially radial structure of its major road and rail networks.

¹ In Anglophone usage, 'public transport' denotes passenger services which are used by the public at large, generally against the payment of fares, and which may or may not be provided or operated by a public agency.

² At current (2^{nd} Mar. 2010) exchange rates, R1.00 = US\$0.130.

Mode characteristic	Statistic
Metropolitan road network (freeway, arterial and main routes)	approx. 2,235 km
Local road network	approx. 7,513 km
Number of private vehicles	600,000
Car ownership per 1,000 population	200
Bus fleet	1,318
Number of bus routes (subsided or not)	1,545
Rail rolling stock (number of operational train sets)	78
Total length of rail track	581 km
Number of rail stations	119
Minibus-taxi fleet	7,467
Number of minibus-taxi owners	6,359
Metered (sedan) taxi fleet	567
Modal split: home to work (a.m. peak period) (%private : public : non-motorised)	46:42:12
Modal split: public transport modes (%rail : bus : minibus-taxi)	54 : 17 : 29

 Table 1 - Metropolitan Cape Town: key transport system characteristics

Source: CoCT, 2008.

Uniquely among the major South African cities, where minibus-taxi operations have become the dominant mode of public transport during the last three decades, the commuter rail system in Cape Town continues to carry the largest share of the public transport passenger market, at least during peak periods. The share of this market carried by the partially regulated minibus-taxi sector has increased primarily at the expense of formal, scheduled bus services but has also expanded during off-peak periods when the frequency of both rail and bus services is greatly reduced. Until tightened personal credit restrictions were introduced as a result of the current global financial crisis, car ownership levels in the city were continuing to rise, with an associated shift from public transport to PMT modes. This has been due principally to common aspirations to achieve the enhanced levels of personal mobility enabled by car ownership as soon as it can be afforded, coupled with widespread and generally justified perceptions of declining levels of service offered by public transport, as well as concerns about personal safety shared by female train and bus passengers, in particular.

As in South African cities generally, Cape Town's passenger transport system manifests an essential duality in its operation which I have elsewhere labelled 'systemic dualism' (WILKINSON,

2008a). In broad terms, this is both derived from, and continues to be reinforced by, the structural legacy of socio-spatial segregation inherited from apartheid era planning practices, now overlaid to some degree by divisions of socio-economic status or class, in addition to those of previously ascribed 'population group' or 'race'. The duality - which may be understood as the particular form taken by the 'urban transport divide' in this context – is manifested in the differentiated mobilities and routine travel patterns and experiences associated with two broadly defined segments of the passenger transport market. On the one hand, members of lower income households, living in the city's generally more peripheral 'zones of disadvantage' comprised of earlier apartheid era 'townships' and more recently established informal settlements, constitute the great majority both of public transport users across all the major modes, and of pedestrians. On the other hand, members of middle and higher income households, residing in more or less advantageously located suburbs, for the most part have access to and use private vehicles rather than public transport.

A more nuanced and detailed picture of the differentiation of mobilities across the city's population (Table 2) deploys data drawn from the 2003 National Household Travel Survey, disaggregated in terms of the 'population group' categories still used in official statistics and certain of the 'customer market segmentation' categories formulated by the National Department of Transport (NDoT).



a) Commuter rail



b) Unscheduled minibus-taxis



c) Scheduled buses

d) Minibus-taxis and buses in general traffic

Figure 1 - Existing modes of public transport operating in Cape Town

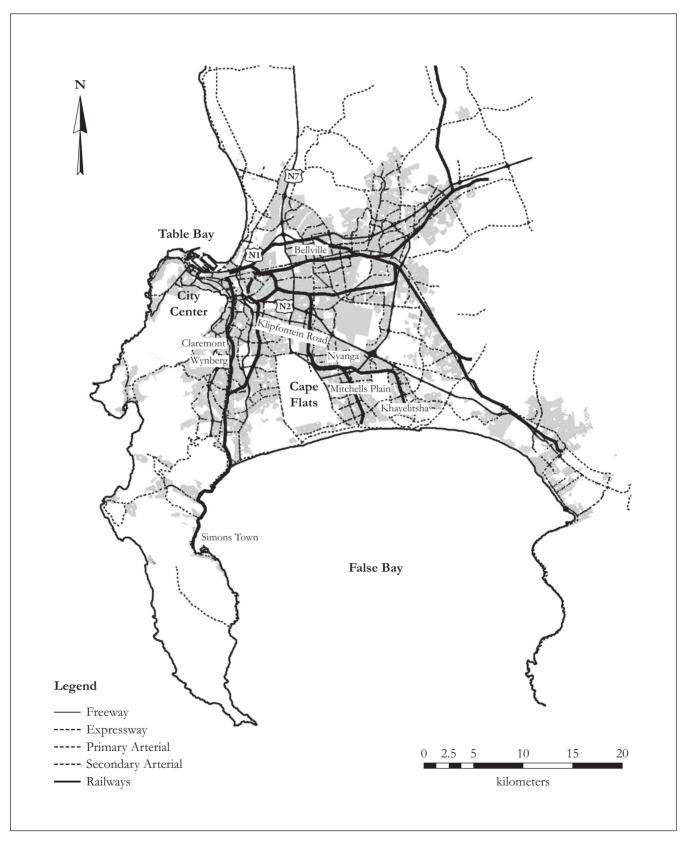


Figure 2 - Metropolitan Cape Town: major road and rail networks Source: WILKINSON, 2008b.

	Approximate proportion of population group in selected NDoT 'customer segments'				
Population group	'mobile' (car users in households earning > R6,000/month)	'PT chooser' (PT passengers in households earning R2,500-4,000/month)	'PT captive' (PT passengers in households earning < R2,500/month)	'stranded' (compelled to walk or cycle > 30 minutes)	
Coloured	36%	12%	15%	<2%	
African	8%	12%	58%	3%	
White	88%	insignificant	insignificant	insignificant	

Table 2 - Metropolitan Cape Town: passenger market segmentation

Source: Derived from LOMBARD, 2006.

Nationally, average car ownership levels remain below 0.2 cars/household at household income levels of less than R3,000/month, rising to 0.6 cars/ household in the R3,000-6,000 monthly income band, and to 1.3 cars/household at income levels above R6,000/ month (CAMERON, 2006). The relatively higher levels of service offered by Cape Town's public transport system may be reflected in the proportion of otherwise 'mobile' customers who have access to private transport but nevertheless continue to use one or other of the public transport modes – 17% in the case of the Coloured population group, 6% and 3% for the African and White population groups, respectively.

The initiative to transform public transport systems in South African cities

Since the mid-1990s and the transition to a post-apartheid polity, South Africa's urban passenger transport policy has been shaped around explicit commitments to two overarching aims. The first is to prioritise provision for public transport and non-motorised transport (NMT) modes over PMT modes, specifically in order to address the mobility needs of the more disadvantaged sectors of the population more effectively and directly, while the second is to institute effective travel demand management strategies, including the promotion of public transport-oriented land use patterns ('development corridors'), as well as road space management and a range of possible pricing measures to 'disincentivise' private car usage (allocation of dedicated public transport or high occupancy vehicle lanes, imposition of parking restrictions, introduction of congestion charging, etc.) (WILKINSON, 2008a, b). In addition, legislation – in particular, the National Land Transport Transition Act (n. 22 of 2000) and its recent replacement, the National Land Transport Act (n. 5 of 2009) – has established a statutory framework for 'integrated transport planning' to be carried out at the local authority level, as well as the basis for devolving the necessary powers and functions to plan, regulate and oversee the operational management of public transport services, other than those provided by the commuter rail system, to this level.

Despite the establishment of this supportive legislative and policy environment, no significant progress had been made in terms of any concrete improvement of public transport systems in the major cities by 2007, when the NDoT-acutely conscious of the imminence of the 2010 Fifa World Cup event formulated its Public Transport Strategy (NDoT, 2007a) and Public Transport Action Plan Phase 1: 2007-2010 (NDoT, 2007b). These documents, together with significant national funding disbursed through the Public Transport Infrastructure and Systems Grant (PTISG) facility (some R5.5 billion between 2007 and 2009), were intended to 'catalyse' the accelerated planning and implementation of 'integrated mass rapid public transport' (or 'integrated rapid transit') networks in selected cities, specifically those involved in hosting 2010 World Cup events. Just four cities have subsequently demonstrated some level of progress in this regard-Johannesburg, Cape Town, Port Elizabeth/Nelson Mandela Bay Municipality and Pretoria/Tshwane Municipality - but only in Johannesburg has this yet extended to the actual initiation of BRT operations in a first phase of the city's planned Rea Vaya network. In Cape Town, the intended launch of first phase BRT operations along a single route – the 'West Coast' corridor connecting with the central city area – as the initial component of the proposed city-wide IRT system has now been delayed to later this year, after the World Cup event, although some of the necessary infrastructure in the form of dedicated BRT lanes and boarding stations has been completed, or will be shortly (Figure 3).



Figure 3 - Projected view of proposed BRT station in central Cape Town Source: CoCT, 2008.

The reasons for this delay, and for the more general lack of progress in transforming the city's public transport services by establishing the IRT system are complex and multi-faceted, but include:

> 1) A lack of appropriate 'institutional capacity' within the relevant city agencies, which is perhaps the most immediate or proximate problem in this regard, and has led to serious miscalculations in terms of the costs and timeframes involved in installing the first phase of the system. This is related to a longer standing issue of developing or reestablishing effective capacity to plan and implement large-scale transformational projects in the transport arena at the local government level, which is present even in the largest metropolitan municipalities like Cape Town, and itself is almost certainly grounded in the

protracted and exceptionally ambitious process of fundamental restructuring and rationalisation of South Africa's local government system undertaken between 1993 and 2000.

- 2) Considerable uncertainty within the affected cities about the scale and longer term continuity of national funding flows into the 'catalytic' transformation projects promoted under the NDoT's Action Plan, specifically in relation to their extension into the post-World Cup period. Recently, the national Treasury has indicated that additional funds (of the order of some R12.25 billion over the next three financial years) are to be made available through the vehicle of the PTISG facility for planning and capital expenditure in cities that have made demonstrable progress towards achieving Action Plan objectives, while a further amount of some R11.55 billion is to be provided over the same period to cover operational costs through a new facility, the Public Transport Operations Grant (PTOG) (Cameron 2010). However, given the emerging recognition that the planned IRT systems are unlikely to be able operate without some significant level of ongoing public funding, questions remain about the commitment of national government to the establishment of sustainable, locally based revenue streams-possibly derived from local fuel or business turnover taxes - to support such subsidies beyond the medium term.
- 3) The continuing fragmentation of the institutional framework which governs the provision of public transport in Cape Town, despite clear directives in the relevant policy and legislation that the powers to plan, regulate, oversee the operational management of, and control funding for road-based public transport services should be devolved to the local level. This has been a source of ongoing conflict and confusion between provincial and local government agencies about where responsibility for planning and implementing the transformation

of road-based public transport services ultimately lies, while the provision of commuter rail services remains situated effectively beyond local control – characteristics which, in combination, have undoubtedly complicated the formulation of a coherent plan and programme of implementation for the IRT project. Table 3 identifies the various bodies which play significant roles in the current system, including:

- a) agencies of all three spheres of governmentthe national Department of Transport (NDoT), the Western Cape Provincial Government's Department of Transport (DoT) and Operating Licence Board (OLB), and the transport planning and roads sections of the city of Cape Town;
- b) parastatal or state-owned enterprises in the form of the Passenger Rail Agency

of South Africa (PRASA), over which the NDoT continues to exercise administrative oversight, and the South African National Roads Agency;

- c) scheduled bus service operating companies which, in metropolitan Cape Town, comprise the long-established Golden Arrow Bus Services (Pty) Ltd (GABS) and its more recent subsidiary, Sibanye Bus Services (Pty) Ltd, functioning effectively as a monopoly in this sector of the passenger transport market; and
- d) a fluid and heterogeneous assemblage of minibus-taxi operators, grouped into 'route associations' and regionally-based 'motherbodies', which are generally constituted informally and often locked in antagonistic relationships with one another over control both of membership and access to particular routes.
- Table 3 Current institutional framework governing the provision of public transport services in metropolitan

 Cape Town

function				funding			
				capital investment		operations	
mode	planning	regulation	operational management	road/rail networks + ancillary infrastructure	vehicles/ rolling stock		
commuter rail	PRASA: Regional Rail Plan	National DoT + National Rail Safety Regulator	PRASA	Treasury \rightarrow NDoT \rightarrow PRASA budget allocation including operational subsidy + farebox revenue			
scheduled buses	Municipality: Integrated Transport Plan (ITP)	Provincial OLB + Provincial DoT (subsidised service contracts)	operators (GABS + Sibanye)	local roads + public transport interchanges: Municipality (+ national grants) provincial roads:	operators	Treasury → Prov. DoT → operators: operational subsidy + farebox rev.	
minibus- taxes	Municipality: ITP	Provincial OLB + informal route associations	operators	Provincial DoT national roads: SA National Roads Agency	operators + taxi recap. programme	farebox revenue	

Source: WILKINSON, 2009.

4) A pattern of sustained and sometime violently expressed resistance by elements within the minibus-taxi sector to the installation of BRT components of the proposed IRT systems, which possibly constitutes the single most significant risk in relation to their successful implementation. The aetiology of this resistance is complex, and as yet not particularly well understood, but seems to be grounded most fundamentally in the concerns of many minibus-taxi operators and their 'route associations' that the introduction of BRT networks will significantly affect and perhaps prejudice their established and predictable, if generally 'informal' ways of earning their livelihoods and conducting their businesses. The sector is undoubtedly considerably heterogeneous in composition and it is evident that at least some operators and route associations, while remaining cautious and concerned to understand the specific implications of proposed changes for themselves, are less rigidly opposed to negotiating their incorporation into the system than others (cf. SCHALEKAMP; BEHRENS, 2009).

In Cape Town, to focus on the last of the possible causes for lack of progress in installing the IRT system listed here, it is claimed by City officials that the operators and route association directly affected by the introduction of the first phase of its BRT network component are engaged in negotiating the terms of their incorporation into a new operating entity which will be awarded the contract to supply both trunk and feeder services within the West Coast corridor. To date, however, the details of this process have not been made public and it is not possible to assess the viability of any arrangement that may have been made in this regard. What nevertheless seems clear is that there continues to be widespread, if possibly still only latent, opposition among operators and route associations to the introduction of BRT routes in those parts of the city where minibus-taxi operations presently carry the highest volumes of passengers and are perceived to be among the more lucrative, notably those linking the metropolitan south east sector to major centres or zones of employment in the historic core areas. This is undoubtedly exacerbated by the history of mistrust and miscommunication between minibus-taxi operators and authorities in all three spheres of government which has persisted in most parts of the country over at least the last two decades.

In addition, arguably, at least some of the resistance engendered by the planned introduction of BRT networks is focused on the scale, rapidity and far-reaching nature of the proposed transformation. What may be labelled the 'big bang' approach involves the essentially technocratic formulation of an extensive, city-wide programme of radical restructuring of existing public transport services which is then presented more or less as a fait accompli, with little opportunity created for the affected 'stakeholders' - primarily existing formal and informal operators and representatives of public transport user constituencies - to debate either its underlying rationale or its intended operational parameters. Certainly, the expectation that the proposed installation of BRT networks would be generally accepted by minibus-taxi operators simply as an attractive business opportunity has been demonstrated to be unrealistic. A key policy implication, then, might be that possible alternatives to the 'big bang' approach - which might centre on the incremental development of 'hybrid' or only partially transformed systems, incorporating a wide range of differentiated services and governed by what would evidently be complex regulatory frameworks, as well as more deliberative or participatory, probably extended, processes of engagement with key 'stakeholders'-deserve further systematic investigation and consideration (WILKINSON, 2009).3 At the very least, I would argue that it is important to

³ This is one focus of research presently being undertaken within the Centre for Transport Studies at the University of Cape Town as part of a programme funded by the Volvo Research and Education Foundations to explore issues related to provision for public transport and NMT modes in three African cities – Cape Town, Dar es Salaam and Nairobi (www.acet.uct.ac.za/ research.html).

abandon any tendency within local policy communities to uncritically appropriate what are presented as models of 'international best practice' – such as Bogota's *Transmilieno* project – and to seek to apply them without careful mediation or reframing to take due account of what is likely to be a significantly dissimilar institutional environment and operational milieu, in which feasible intervention will be subject to quite different constraints.

Conclusion

On the basis of this obviously rather limited account of some of the key difficulties encountered in implementing an ambitious transformation of Cape Town' public transport system, I would venture to draw only two general lessons which might be considered germane in developing such initiatives elsewhere. Summarily, these may be presented – in perhaps overly prescriptive terms – as follows:

- 1) Ensure that the full range of possible transformation or reform options is explored in sufficient depth to assess their anticipated social and economic, as well as financial, costs and benefits, including those options which may produce partial or 'hybrid' outcomes, as well as the often ignored 'do nothing' option. Do not assume automatically, or without critical reflection, that a 'big bang' approach ultimately involving the installation of a full-specification BRT network will necessarily represent the most desirable outcome in terms of deriving '(social) value for (public) money' invested in the process.
- 2) Whatever project for transformation or reform of the existing public transport system is eventually undertaken, ensure that it is formulated on the basis of appropriately detailed and systematic consideration of the institutional factors which generally will bear on its implementation and – more immediately – of those which can be seen to shape the response particularly of informal, but also of formal, operators to the proposed changes.

While the opposition of minibus-taxi operators to the planned installation of BRT networks may have been particularly intense in South African cities as a consequence of specific factors in the sector's evolutionary trajectory, it is probable that some such antagonistic response might generally complicate transformational projects in most contexts where informal public transport operations have a significant presence. A further reason to take such operations into account in reviewing the broader socio-economic costs and benefits of transformation options would be that they often constitute the core of a significant sector of economic activity, providing livelihoods and employment not only for the operator/ owners and drivers directly involved in providing public transport services, but also the normally quite extensive array of ancillary personnel such as conductors, rank marshals, vehicle washers, and food vendors, among others, whose activities derive directly from that provision.

In conclusion, then, I think it appropriate simply to restate or re-emphasise the essentially cautionary stance that underpins both of these prescriptions. The conditions which characterise the operation of public transport systems in many, perhaps most, cities of the 'global South' undoubtedly provide a mandate to investigate options to undertake their reform or transformation to better serve the mobility needs of their populations. In any such investigation, however, it would be sensible not to allow uncritical acceptance of what may be presented as the imperative to introduce innovative, 'world class' technologies and practices in order to effect meaningful change at the systemic level, to dominate the decision-making process. Rather, that process should be driven by a more measured and careful consideration of the potential outcomes associated with the full range of possible transformational project options referred to earlier, assessed specifically in terms of their broader social and economic impacts, their affordability for both the intended passenger market and the

relevant public funding agencies – and, critically important, their 'implementability'. Addressing the latter, in particular, is essential if the creation of what ultimately might become 'white elephants' – the provision of infrastructure and vehicles which subsequently remain largely or entirely unused – is to be avoided.

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