

# BEYOND BRT: INNOVATION IN MINIBUS-TAXI REFORM IN SOUTH AFRICAN CITIES

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## ABSTRACT

Like a growing number of African countries, South Africa has embraced bus rapid transit (BRT) as a means to reform urban public transport. However, BRT services that are now operational in Cape Town, Johannesburg and Tshwane – and under development in other cities in the country – are confronting problems. These problems stem in part from apartheid legacies of sprawling spatial form that produce particular tidal travel patterns. Other problems are more generic including difficulties with integrating minibus-taxis into BRT networks to create greater connectivity and access at the city/metropolitan scale. Overall, these structural problems and BRT implementation issues create serious financial and equity problems for cities. We argue that, along with the pervasiveness of minibus services as the main mode of public transport, a growing recognition of these challenges is stimulating a policy-level shift in South Africa to encourage integrated public transport networks and “hybrid systems” that focus on complementarity between scheduled services and unscheduled minibus operations, as well as innovations to improve, restructure and engage, rather than simply replace, minibus services. Indeed, some cities are working to improve minibus services or upgrade them into bus services outside of the BRT process altogether.

This paper presents some findings of case study work as part of a survey of minibus-taxi innovation for the South African National Treasury and World Bank\*. Examining seven South African cities, we found five types of emerging experimentation: i) minibus operations restructuring initiatives embedded in the national Public Transport Network Grant (PTNG) framework ii) minibus operations restructuring initiatives outside the PTNG iii) minibus fleet and infrastructure improvement initiatives; iv) professional development programmes for minibus operators and their employees; and v) information and communication technology-mediated minibus improvement initiatives. Overall, we argue that this suggests a broader and potentially promising policy shift away from a reform approach centred on minibus displacement and replacement and towards a more holistic focus on integrated public transport systems with improved minibus and bus services. Key questions that then emerge include which innovations might work best and why and how they might be scaled up to have impacts on services.

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# 1 BACKGROUND AND INTRODUCTION

The minibus-taxi (MBT) industry plays a central role in public transport networks in South African cities. This is true as much for the MBT vehicles, drivers and conductors that play a direct role in transporting passengers as it for the vehicle owners, local-area owners' associations, regional and national representative bodies, and those who provide vehicles, finance and insurance. In both larger and smaller cities, the MBT industry is unequivocally the largest service provider in the public transport market. In eThekweni, Johannesburg and Tshwane the MBT modal share for number of public transport passengers carried is 74%, 73% and 66% respectively, while in Rustenburg and Polokwane these figures are 71% and 63% (City of Polokwane 2014, Van Ryneveld 2016). Even in Cape Town, where suburban rail dominated historically, since around 2005 the MBT's market share has been larger than that of rail (Adjiei et al 2014, Van Ryneveld 2016).

The shortcomings of MBTs – and similar minibus services in other countries – have been well-documented (see, for example, Behrens et al 2016 and Cervero 2000). These include poor vehicle maintenance practices, reckless driving, security issues and limited off-peak service availability along with key inefficiencies linked to poor management but also lack of planning by cities for these systems (Saddier and Johnson 2017). Institutionally, the diversity and number of operators and the politics of representation, finance and ownership in the sector also create challenges for reform and engagement. Against this backdrop, and given the importance of MBTs in the lives of city-dwellers, the challenge for South African cities has been to find ways to support service improvements and to do so in a cost-effective and equitable manner that also addresses the post-apartheid spatial legacy and overcomes institutional and political hurdles.

Since 1994 MBT reform has consistently been on the government's transport agenda. In 1995 a National Taxi Task Team (NTTT) was formed to investigate issues in the MBT sector and to propose solutions and policy options to ensure the sector's long-term viability. Of specific note is that the NTTT concluded that the subsidy system did not reflect the MBT sector's proportional contribution in the public transport market (NTTT 1997). Subsequently, the 1996 White Paper on National Transport Policy (National Department of Transport [NDoT] 1996) directed that: MBT operators be supported to form collectives in the form cooperatives, associations or companies; provinces introduce MBT route or network operating permissions; and MBT operators could on their own or in partnership with bus companies compete for contracts issued by transport authorities.

Reiterating the intentions of the NTTT and 1996 White Paper, the Moving South Africa Action Agenda (NDoT 1999) once again called for MBT operations to be improved, formalised organisationally, and drawn into partnerships to tender for providing passenger transport services. At same time that Moving South Africa was launched, the NDoT announced its Taxi Recapitalisation Programme (TRP). While there is no official TRP project documentation in circulation, Walters (2008) writes that the initial aims of the TRP included: formalising MBT labour practices; consolidating businesses into larger entities; replacing radius-based permits with route-based operating licenses; providing a minibus scrapping system to encourage fleet renewal and reduce the fleet size; and instituting minimum vehicle safety and identification standards. In practice the most evident progress in terms of these aims has been fleet replacement, that kicked off in 2006, and radius-based permit to route license conversions. More recently, it appears that the TRP will continue in a modified form and expand as a more permanent program of support for the sector (NDoT presentation March 8, 2018).

2006-2007 marks a shift in the public transport reform approach in South Africa. This shift coincided with the announcement that the country would host the 2010 FIFA World Cup,

and was informed by contractual commitments between government and FIFA that match-hosting cities would provide public and other transport services and supporting infrastructure at stadia and other strategic points (City of Cape Town [CoCT] 2008, NDoT 2006). NDoT and city governments thus became partners in building Integrated Public Transport Networks (IPTNs), initially with a World Cup focus and later with a broader focus on urban public transport improvement. With an emphasis on cross-modal network-building, the IPTN programme aimed to mesh investment in existing or new public transport services with complementary land-use changes to make services and jobs more accessible. To fund IPTNs, the National Treasury (NT) established what is now known as the Public Transport Network Grant (PTNG) to support cities to develop public transport infrastructure and operations that linked to their spatial and transport plans.

At launch in 2007 the focus of IPTN roll-out was on bus rapid transit (BRT) as a critical part of urban public transport networks (NDoT 2007). BRT would serve to fill the role of ailing or absent rail services and incorporate both MBT and scheduled bus operations. The outcome was to be streamlined trunk and feeder systems in 12 cities and 6 more heavily populated districts across the country, with an envisaged completion date of 2020. This reform direction was heavily influenced by the perceived success of BRT in Latin America and serves as an example of “policy transfer” to a substantially different context (Wood 2015, Munoz-Raskin and Scorcio 2017, 2018).

BRT-focussed reform has not gone as planned. Besides encountering significant difficulties in absorbing existing operators (see e.g. Schalekamp 2015, Venter 2013), the BRT build programme has resulted in significant actual or projected operating deficits that were not foreseen at the programme’s inception (see e.g. Bulman and Van Ryneveld 2015, Bulman 2017). The PTNG was primarily set up to fund capital expenses (see the PTNG annexure to the annual Division of Revenue Acts), whereas public transport operating subsidies fell to the cities. Funding operating cost shortfalls was not a city-level responsibility prior to the IPTN programme, and the National Treasury and cities have been under pressure to find ways to share this new expenditure item. In addition, despite significant effort and funds being spent, BRT services are only operational in limited parts of Cape Town, Johannesburg and Tshwane, leaving most city-dwellers without access to improved public transport networks and continuing to use MBTs.

These realities are pushing a rethink of the infrastructure-heavy, BRT-oriented reform approach. A second wave of IPTN development now focuses on “hybrid systems” where the MBT sector is more effectively included in the overall transport system, as well as in more integrated transport and land-use planning. Indeed, evidence exists that in response to pressing service problems a variety of actors have been exploring improvements of the “soft” (i.e. non-infrastructure) elements around MBT integration and improvement. There are also some indications of shifts in infrastructure provision that could provide preconditions for creating a better functioning hybrid system, and some cities are already upgrading MBT infrastructure as part of system-wide improvements. As such, the beginnings of a paradigm shift in the approach to MBT reform is in evidence, with implications for the 1996 White Paper.

As these important efforts are poorly documented and studied, the World Bank in partnership with the NT Cities Support Programme of the National Treasury, and funded by the Swiss State Secretariat for Economic Affairs, commissioned the authors to identify and analyse emerging initiatives to reshape MBT operations and infrastructure across South Africa. In this paper we report on the findings of this research in an effort to contribute not only to the scholarly literature on MBT (or “paratransit”) reform but also to add to discussions on the policy shift that we see as emerging in South Africa.

In the next sections of the paper we provide an overview of our research process and emergent themes, and show that MBT reform initiatives may be categorised into five thematic areas. A very brief description of each of the different categories of initiatives with examples then follows as a way to show the variety and breadth of experimentation. It is important to bear in mind that this research was exploratory, and many of the initiatives identified are in very preliminary stages. In addition, given the short time period of the study, this is necessarily incomplete, and we could only provide a broad vista of some of the emerging efforts at MBT innovation. Thus, this work sets the stage and argues for more in-depth investigation, data collection and monitoring of MBT innovations. The final section of this paper contains concluding remarks looking across the initiatives and themes, reflections on the implications of these efforts and suggestions for future research.

## **2 RESEARCH PROCESS**

In May to September 2017, we conducted 25 interviews with key actors in the MBT/public transport reform arena. 20 interviews took place during site visits to four metropolitan cities (Cape Town, eThekweni, Johannesburg, Tshwane), while we conducted five off-site telephonic and in-person interviews in the cases of George, Polokwane and Rustenburg. In order to scan the field for innovation, we identified a variety of people in government, consulting, civil society, academia and in the MBT sector itself to interview. We started with known actors in each city, and from there followed a snowballing approach to identify further informants. We asked each person about their view on the state of MBT reform and integration in IPTNs, and then about promising new approaches in relation to MBT service improvement that they were part of or had knowledge of. From this we collected and categorized a set of case studies for further exploration. We also engaged in participant observation of the Cape Town MBT operator capacity building programme (see Schalekamp 2017), which allowed for discussing the potential of new MBT initiatives with a group of established operators, although more systematic discussions on these reforms with the industry would be desirable in future research.

## **3 EMERGENT THEMES AND CASE STUDIES**

Many informants viewed MBT reform within the “displace-and-replace” paradigm in the context of BRT and IPTNs, although we identified a few initiatives engaging the MBT sector more cooperatively outside of this paradigm. The displace-and-replace paradigm tends to set up a conflictual starting point around integration with the sector. In contrast, operators, academics and civil society actors interviewed did not see the replacement scenario likely in the near future, or in some cases, necessarily desirable. For example, the eThekweni Transport Authority (ETA) was clearly realistic given the long timeline for the BRT/IPTN projects to reach many communities. As the ETA foresaw the need to address service improvements through a municipally-funded Public Transport Service Improvement Incentive Programme (described in more detail below) called Moja Cruise, which sets up a financial incentive scheme for MBT service improvements, coupled with institutional support and the use of technology to monitor compliance (Wosiyana 2017).

Unsurprisingly, given the initial approach to reforming the MBT sector and some of the institutional challenges, most informants described difficult or problematic engagement between the MBT sector and the responsible government authorities. It became clear that this relationship needs improving at least through a formal recognition of the importance of the MBT sector and that cities should be promoting complementarity between different public transport services. In support of this shift, city interventions that improve conditions and service for MBT operators, drivers and passengers would be necessary (Jennings and Behrens 2017). Critical next questions then were identifying what kinds of improved

interventions in and engagements with the sector might be possible, and what these might look like in practice.

In terms of intervention and engagements that might be possible, and what experimentation is taking place on the ground, we found five types: i) minibus operations restructuring initiatives embedded in the national Public Transport Network Grant (PTNG); ii) minibus operations restructuring initiatives outside the PTNG; iii) minibus fleet and infrastructure improvement initiatives; iv) professional development programmes for minibus operators and their employees; and v) information and communication technology (ICT)-mediated minibus improvement initiatives. The individual cases are described by type below.

### **3.1 MBT restructuring initiatives embedded in the national PTNG framework**

Our review found a number of initiatives being planned and managed by municipal governments as part of the development of their IPTNs and/or as an evolution of the initial BRT-led public transport reform approach promoted nationally. As a result, they qualify for funding out of the national PTNG. All of these show a stronger shift towards embracing, upgrading and integrating MBTs.

#### *Cape Town: shift towards including MBT-type services in the MyCiTi IPTN*

While the first phase of Cape Town's IPTN focused on the installation of BRT and feeder buses to replace MBT, in the second phase BRT or upgraded bus services will only be installed on high-demand trunk corridors. Limited funding to cover operating subsidies and the complexity of operator reorganization were key factors in this shift. Beyond the trunk corridors MBT services will be improved and ownership structures strengthened, ultimately to be contracted as part of the IPTN. Progress to date has mainly focused on dedicated infrastructure for the trunk services, while the details of MBT incorporation still have to be finalized. There is also still some way to go on the actual negotiations with MBT operators around corporatization and contracting, and thus the actual outcome of the refocused second phase approach remains somewhat uncertain. (Interviews with Cape Town project consultant 30 May 2017, municipal official 8 August 2017)

#### *George: Go George upgraded bus IPTN*

George is a smaller city that bucked the trend to plan and install full-specification BRT, and while the aim is to replace MBT with scheduled services remains, this is the first city that decided to engage the MBT sector in a very central and important way. From the outset, the municipality in partnership with the provincial government planned a curb-side upgraded bus services to replace existing bus and MBT services. This better matched the financial position and low-density urban-rural spatial structure of the municipality. Operators have been incorporated into one operating entity – though not without difficult negotiations and occasional and at times violent protest action and strikes. At present three of the Go George project phases have been completed and are in operation, with the remaining three phases aiming to link outlying settlements in the municipality to the core urban area. The risk of renewed resistance from operators remains, while on the public sector side progress has, and will, continue to depend on continued collaboration between two distinct spheres of government each with their own leadership structures and mandates. (Interview with George project consultant 10 August 2017) As Aboo and Roberston (2016) note, this “was the first attempt made in the RSA to engage fully with the local minibus-taxi and bus operators with the objective of canvassing their full participation, establishing them into a private company, and awarding them the responsibility of operating a 12-year negotiated bus contract as permitted in terms of Section 41 of the National Land Transport Act (NLTA – Act 9 of 2009)”

*Polokwane: refocusing Leeto la Polokwane IPTN from BRT to upgraded bus-MBT system*  
Though initially planned as a full-specification BRT system in smaller city, the original BRT component of the project has been dramatically scaled back to better match the financial capacity, spatial characteristics and organizational structure of MBT operations. The result is likely to be an upgraded MBT system, with only a small number of routes seeing the introduction of scheduled buses. The core focus of the project will be on upgrading MBT services as the passenger demand profile and lack of traffic congestion does not warrant extensive infrastructural investment. Though operators and officials appear to have a constructive relationship and are in agreement with the refocussed approach, final negotiations must still be concluded and the new services begin operating. (Interview with Polokwane project consultants and municipal officials 6 September 2017)

### **3.2 MBT restructuring initiatives outside the PTNG framework**

We discovered other initiatives emerging outside the national government's public transport reform programme and, hence, the scope of the PTNG framework. These initiatives have been initiated, managed and funded either by operators or by city and, in some cases, provincial government.

#### *Cape Town: MBT collective fleet and fare management pilot scheme*

An MBT association running local-area services centralized fleet management and daily cash fare collection and paid fixed wages to drivers and profit shares to owners. Only half of the overall fleet was necessary to run the collective system, while larger capacity vehicles were leased to replace minibuses on higher-demand routes. The scheme ran for about a year and a half. Reasons given for its demise include owners claiming unfair reimbursement out of the collective cash proceeds, while drivers wanted higher wages and involved labour unions, which led to a collapse in labour relations. Despite its collapse, the scheme demonstrates that MBT operators can and do take the initiative to improve their services, as well as that cash management and other digital technologies (as discussed in section 3.5) have a role to play in the success of such initiatives. (Interviews with Cape Town operators 16 November 2016, 1 June 2017)

#### *eThekweni: municipally-funded MBT service improvement incentive scheme*

Since the benefits of its existing BRT programme for passengers lie years into the future, the municipality is setting up a scheme called Moja Cruise to reward MBT operators for more immediate service improvements. The municipality will pay associations and operators monthly incentive amounts (a form of operational subsidy) in exchange for improved vehicle maintenance, driver behaviour and conditions, passenger treatment, and for instituting written driver employment agreements.

In mid-2017 the municipal council approved funding for a 6-month pilot phase on 500 MBT vehicles. The pilot was formally launched at the end of 2017 amid procurement of the supporting technologies and detailed negotiations with operators, with actual pilot operations anticipated to commence in the first half of 2018. The impact and success of the pilot, and of full-scale roll-out in future years, thus still remain to be seen. However, should the MBT incentive scheme succeed and BRT become operational as planned then both forms of service and the higher levels of trust it would auger well for the formation of an integrated network. (Interviews with eThekweni municipal official 6 June 2017)

### **3.3 MBT fleet and infrastructure improvement initiatives**

The initiatives presented in this section are those we encountered with a focus on providing support for improving MBT operators' assets and the infrastructure that their services utilize in general, rather than on specific operational restructuring. Nonetheless, these initiatives

do impact on the MBT service offering by contributing to the passenger experience. Overall, they predate and are independent of the PTNG framework, but have been initiated, managed and funded by different spheres of government.

#### *The national Taxi Recapitalisation Programme (TRP)*

Since 2006 the NDoT has funded a scrapping scheme for MBT operators to surrender old, licensed vehicles. In exchange operators receive a capital allowance that covers approximately one quarter of the cost of a new vehicle compliant with prescribed safety and seating standards. Though many operators may struggle to make up the shortfall and end up paying punitive interest rates, one third of the estimated national MBT fleet of around 200 000 vehicles have been replaced (Parliamentary Monitoring Group 2016). As such the TRP has arguably had the most widespread and direct positive impact on passengers' safety and comfort of any public transport reform process in the country. However, challenges remain in improving and scaling up this programme. In practice, some operators report struggling to access affordable finance to cover the  $\pm 75\%$ -80% balance of the purchase price of a new vehicle not covered by the TRP (Schalekamp 2015). Moreover, the lack of accessible data on the TRP's quantitative and financial aspects (and indeed the absence of official TRP documentation in the public domain) works against empirical review of the programme in its current form or with a view to the future revisions, although there is some evidence that the NDoT has been analysing the data and plans improvements (NdoT Presentation March 8, 2018).

#### *Infrastructural improvements for MBT facilities and operations*

Infrastructural improvements provide both capital and operational support for MBT services. Many cities provide formal MBT ranking and transfer facilities, often located at public transport hubs also served by scheduled bus and rail services. Among other improvements, these ranks include roofed loading lanes, public toilets and office space for the local association(s). In at least one case in Cape Town efforts were made to use green design and include solar energy and water conservation measures at the taxi rank (Shah 2014). Another area where authorities provide operational support for the MBT sector is by dedicating road space for the exclusive use of public transport vehicles. Though not many are in existence or actively enforced, there are examples of both dedicated and time-of-day-reserved public transport rights-of-way. (Interview with eThekweni non-government organisation professional 6 June 2017).

### **3.4 MBT professional development initiatives**

The initiatives outlined in this section focus on providing support for improving MBT operators' business planning and management processes. While not aimed directly at operational improvements, by equipping operators and their employees to make better business decisions they demonstrate potential to translate into improved services. These initiatives include partnerships between operators, educational institutions and/or private- and public-sector agencies.

#### *Cape Town: MBT operator capacity building*

Many MBT operators are poorly equipped to shift out of individual-run minibus businesses into more formal business arrangements. In the second MyCiTi project phase the municipality allocated budget across 2014 to 2017 for MBT operator professional development in partnership with the University of Cape Town and private sector training institutions. The programme included topic areas such as business management, scheduled operations and vehicle maintenance, with the aim of establishing a cohort of people to populate the corporatized entities envisioned as part of MyCiTi phase 2 (see section 3.1 above). Slow progress with the corporatization process means that since the programme's conclusion in mid-2017 the cohort has been left without a clear idea of the next steps.

Nonetheless, during programme evaluations, candidates reported instituting changes in their existing MBT businesses, including tracking vehicle movements and revenue, introducing written driver employment agreements, and forming alliances and sharing information across association boundaries. (Interviews with Cape Town MBT operators 1 June 2017; Schalekamp 2017).

#### *Johannesburg: MBT operator capacity building*

Starting in December 2016, the Johannesburg municipality provided funding for a certificate programme in public transport governance and operations management for MBT operators affected by the Rea Vaya BRT negotiations. Drawing inspiration and input from the Cape Town programme and convened by the University of the Witwatersrand's School of Governance, it focuses on operator professional development. The aim has been for operators to better understand the reform agenda and the governance around it to be able to more expertly and knowledgeably engage in improving public transport. The programme had over 100 participants from 11 different taxi associations enrolled for the 25-week course. Preliminary indications suggest that the programme was widely appreciated by the operators but the longer term impacts require further evaluation. (Interview with Johannesburg municipal officials 9 June 2017)

#### *KwaZulu-Natal province: MBT operator and driver training*

At a different geographical scale, the KwaZulu Natal Taxi and Commuter (KZNTCC) has drawn on the provincial Department of Transport and national Transport Education and Training Authority funding to run a leadership training and capacity building programme for around 1600 MBT operators, as well as driver and customer care training for a similar number of drivers, at 18 sites across the province. It is interesting to note that the KZNTCC was set up as a non-profit entity with an endowment from a local vehicle manufacturer, and uses this funding to support the MBT industry across the province. This appears to be an arrangement unique to this province. Similar to the other programs, it appears that the operators and drivers along with the KZNTCC consider it a success, but like the other programs it awaits more rigorous independent scrutiny. (Interview with eThekweni-based civil society organisation professional 6 June 2017)

### **3.5 Information and communication technology (ICT)-mediated MBT improvement initiatives**

South Africa is becoming a regional hub for introducing technological innovation into the public transport sector through the application of ICT and leveraging the data and digital revolution. This section discusses such initiatives that have been introduced in, or impact on, the MBT sector.

#### *MBT service visibility*

In the last few years a number of commercial firms have emerged which have developed tools, methods and approaches to gather, analyse and visualize basic data on MBT stops, routes, ranks, passengers and revenue. Their tools create the potential for passengers to access real-time service information, but also for public authorities and other stakeholders to visualize the geographical and temporal extent of MBT services to a much more detailed scale than what is revealed in records collected for ITPs. In addition, such tools provide a way to better understand operations and detect inefficiencies that need addressing (Saddier et al. 2016). At the core of these tools lie GPS-linked mobile phones carried by on-board and road-side surveyors, or by operators themselves, which generates significant quantities of service data over time. Concerns that require more detailed investigations on the passenger side include: the availability, functionality and affordability of mobile devices and data; access to financial accounts and service to facilitate payment; and numeric and

geographic literacy to interpret and use digital tools. (Interviews with staff at Find My Taxi 30 May, GoMetro 1 June, TaxiMap 1 June, Whereismytransport 31 May 2017)

#### *MBT service surveying linked to IPTN projects*

The Ekurhuleni, Johannesburg and Rustenburg municipalities have been engaging private companies to collect operational data to inform negotiations with MBT operators on their inclusion in IPTNs. At a more extensive scale, in Tshwane a company mapped and collected full operational information on all MBT routes in the municipality as part of the municipality's statutory transport planning process. ICT-mediated surveying is promising as a way to improve planning and operational data, but there is an argument to be made to decouple such surveying from route buyout and displacement and to link it to more holistic network improvement strategies. (Interview with GoMetro and private sector surveyor 1 June 2017)

#### *Cashless fare payment*

Cashless fare payment systems do not appear to be in use amongst MBT services, though TaxiChoice, the commercial arm of the national MBT council (Santaco), has attempted to do so three times in recent years. Reasons for the current absence of cashless fare payment systems include the complexity of the labour relations reorganization needed to take cash fare collection out of drivers' hands, as well as the high cost of mobile data that limits the use of cell phones/apps to facilitate fare payment on both the passenger and operator sides (Schalekamp et al 2017). Nonetheless, these systems, if carefully designed, could offer significant benefits in terms of improving the interface between operators and passengers, data gathering, and in allowing the public sector to insert financial support in this interface.

## **4 CONCLUDING REMARKS**

South African cities appear to be moving away from a “displace and replace” approach to minibus systems to an “embrace, engage, improve and integrate” paradigm. Behind this is the growing realization that the displace and replace paradigm is fiscally problematic and practically complicated for political, social and economic reasons. The bulk of road-based public transport passengers also do – and for some time still likely will – continue to use MBT services. In addition, a current debate about subsidies is raising equity questions for MBT operators and the many passengers who do not appear to be benefiting from the heavy investments in selected corridors. Against this background a number of cities are embarking on a shift in focus that puts integration and access more at the centre of the IPTN planning.

Our research findings demonstrate that a high level of local experimentation is going on across the country, sometimes with the help of the PTNG and sometimes by cities with their own more limited resources. While a number of experiments have failed, others are still in progress and need to be more carefully monitored, scrutinized and evaluated in order to understand which efforts are particularly impactful. A critical question that arises is how the national government through the PTNG could support these efforts and help scale up some of the more successful and replicable efforts. Given our limited time frame, the wide geographical spread and the poor levels of documentation for many of these new initiatives in MBT reform, work needs to be done to better understand which (or which combination) of these approaches to MBT improvements are most promising to deliver on service improvements and equity goals.

Key recommendations for future research include selecting a set of pilot efforts from these case studies to support as well as document, evaluate and share lessons and ideas, while engaging in capacity development to facilitate the success of these efforts. It would be particularly important to provide independent monitoring and evaluation to feed back into subsequent phases of these projects including understandings of the financial implications and “levers of success” with regard to service improvements. This will help to gather more

in-depth knowledge of how successful these approaches are and under what kinds of conditions (for replicability and scaling). Developing a multi-criteria analysis evaluation framework drawing on more in-depth case analysis of the pilot support projects would also be helpful. The benefits and costs of these emerging efforts might then be more systematically understood. Facilitating exchange between cities that are innovating in this MBT reform space might also be helpful. Finally, the PTNG might concretely incentivize further experimentation and spread of new thinking around the “embrace, engage and improve” paradigm to support better minibus service and integration. Overall, to quote an eThekweni transport official, there is a need to move from “sticks to carrots” – a restructuring of incentives – with the MBT sector to provide better public transport and access for all.

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