



Integrated Rapid Public Transport Networks – Public Sector Perspectives

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Contents Page



- 1. Background**
- 2. The Vision for Public Transport in SA**
- 3. Key Thrusts of the Public Transport Strategy**
- 4. Some Constraints**
- 5. Opportunities**
- 6. Conclusion**



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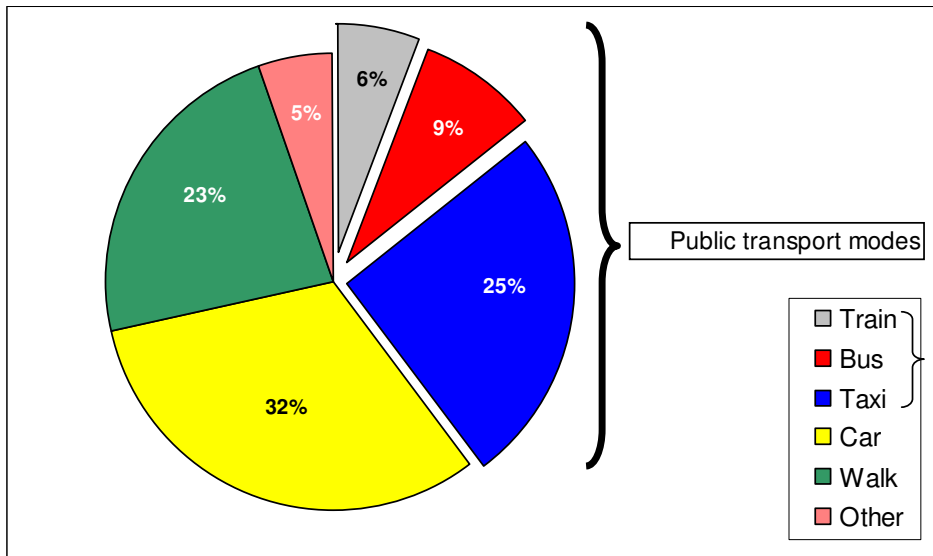
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1. Background

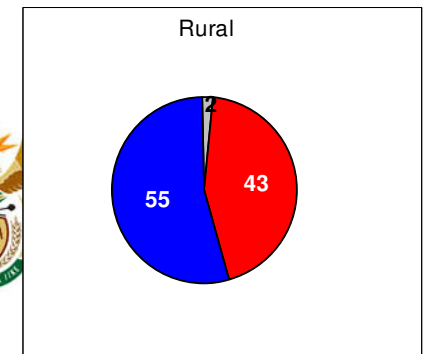
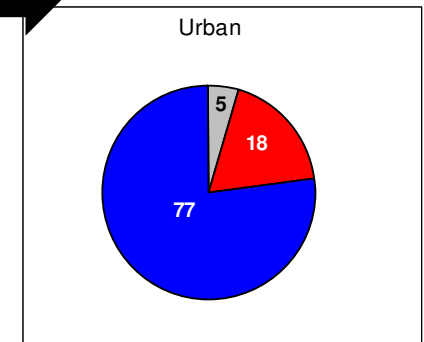
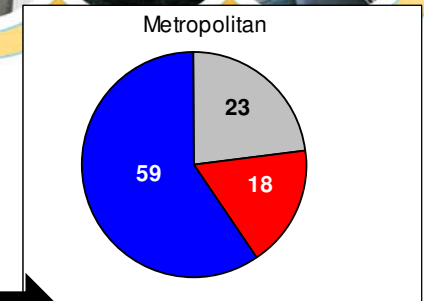
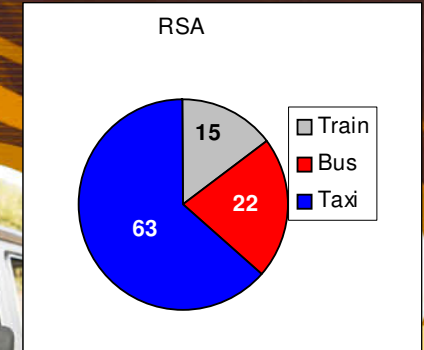
Some basic RSA transport statistics



Modes used for travel to work



Public Transport modes used for travel to work by settlement type



- 10 million daily trips to work
- 4 million public transport work commuters
- 2.5 million by minibus taxi, 0.9 million by bus & 0.6 million by train
- Another 0.33 million use minibus taxis as feeder or distributor services
- 15.7 daily trips to education centres, 76 % on foot



Public Transport & Walking are **lifeline** modes for 80% of SA & should be prioritised over cars!



- 38 million citizens live in households with **NO** access to a car and depend on walking and PT.
- 40 million citizens do not have a driver's licence and need PT.
- 14 million learners **walk** to school, 7 million workers and learners **use public transport**, versus 4.5m workers and learners who **use a car**.
- 13.7 million used public transport at least once a week vs 7 million who used a car.



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User perspectives from 2003 National Household Travel Survey



Current users very unhappy about public transport service quality. NHTS (2003) shows that:

- **67% of taxi users** dissatisfied with safety (including **78% of metropolitan taxi users**). 64% unhappy with facilities at ranks & 60% unhappy with roadworthiness of taxis
- **71% of train users** unhappy about the level of crowding, 63% unhappy about security on trains & 60% unhappy about distance between home and station
- **74% of bus users** are unhappy with the facilities at stops (e.g. shelters). This rises to 82% of rural bus users. 54% are unhappy with level of crowding on buses & 51% unhappy with off-peak frequencies

“Transformation” of public transport policy post-1994 ...1



- **PT subsidy in RSA evolved to support “Apartheid”**
- **Workers could not afford travel to work from distant ‘homelands’ and TBVC ‘states’**
- **Rail services offered cheap fares from dormitory settlements and some homelands**
- **Deficit between train fare revenue and operating costs covered by state**
- **Annual commuter rail deficit amounts to R2.7 billion**
- **Contracted private and parastatal bus operators compensated on the basis of ‘ticket claims’ for difference between affordable fares and economic costs plus profit**
- **Bus subsidies amount to R3.5 billion in 2009/10**

“Transformation” of public transport policy post-1994 ...2



- **Over the past 20 years competition from unsubsidised taxis eroded the passenger base of subsidised train and bus services**
- **But ongoing urbanisation increased the demand for subsidised train and bus services - subsidy requirements continued to rise**
- **1996 White Paper attempted to improve the efficiency of public transport**
- **Despite legislation and extensive planning initiatives were ineffectual:**
 - **Until the PTS secured funding, Rail systems and rolling stock were antiquated**
 - **Transport authorities did not produce implementable Operational Plans for road-based public transport services**
 - **Law enforcement was and still is ineffectual**



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2. Vision

Strategic Approach 2007-2020:

Vision: From Basic Commuter operations... To Accelerated Modal Upgrading & Integrated Rapid Public Transport Networks!

- 85% of all residents within 1 km of Rapid PT Network by 2020
- Upgraded modal fleet, facilities, stops & stations
- Extended hours of operation (16 - 24 hrs)
- Peak frequencies (5 – 10 min) - Off peak frequencies (10 – 30 min)
- Full special needs and wheelchair access
- Safe and secure operations monitored by Control Centre
- Electronic fare integration when making transfers
- Integrated feeder services including walking/cycling and taxi networks
- Integration with metered taxi services and long distance intercity services
- Car competitive PT option - enables strict peak period car use management

Critical Implementation Building Blocks

• ***Integrated Rapid Public Transport Network Implementation Plan***

• ***Municipal control over Integrated Network***

• ***Maximum stake for existing bus/minibus sector in Rapid PT Network operations***

Bus Rapid Transit

The Vision and long-term strategy



- Safe and secure operations monitored by a Control Centre
- Electronic fare integration when making transfers
- Integrated feeders including walking/cycling and taxi networks
- Integration with metered taxi and long distance services
- A car competitive PT option that can enable strict car use management



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3. Key Thrusts of the PTS

The challenge is to formalise and include the Minibus Taxi industry



- The Public Transport Strategy and Action Plan (PTSAP) approved by Cabinet in March 07:- calls for **Integrated Rapid Public Transport Networks** (IRPTN) in up to 12 major cities by 2014.
- IRPTNs include **Rail** priority corridors and **Bus** Rapid Transit (BRT) networks.
- BRT will imitate rail systems by running buses on exclusive lanes. Buses will dock at secure enclosed stations. This needs regulated systems under the control of municipal regulatory entities.
- Rail corridors and BRT will serve as the **trunk** services in IRPTN's
- Rail and bus trunk services will both be served by common **feeder** services in integrated systems
- The intention is for, Trains, BRT trunks and Feeders to have a common electronic fare collection system



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3. Key Thrusts



- In the short-term Johannesburg, Cape Town and Tshwane metropolitan municipalities are planning full BRTs as part of their long-term IRPTN.
- Nelson Mandela Bay is a partial BRT.
- **ALL BRTs** need to include existing operators and labour (especially the minibus industry) as contracted operators.
- Other cities are commencing Operational Plans



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4. Some Constraints

Transition from informal industry to BRT



- The difficult parts are:
 - Persuading taxi owners, drivers and other workers to participate, by convincing them of benefits to themselves and society as a whole
 - Transforming taxi operators into legitimate business operating companies
- Government has promised the taxi industry “no loss of ‘legitimate’ jobs and profits”



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Development costs are not trivial (up to R40 million / km) but light compared to subway & heavy rail



5. Opportunities - Energy implications

Vehicles, footprint and car use reductions



- Vehicle are to be Euro III or IV models
- Clean diesel
- BRT buses with 112 passengers will replace up to 12 MBT with all their traffic & environmental impacts
- Ultimately associated TDM will reduce car use and associated pollution

Table 19.1: Air quality changes in Bogotá

Pollutant	Daily average concentration before system, year 2000 (ppb)	Daily average concentration after system, year 2001 (ppb)	Per cent reduction in pollutant (%)
Sulphur dioxide (SO ₂)	6.8	3.8	44%
Nitrogen dioxide (NO ₂)	24.0	22.4	7%
Particulate matter (PM ₁₀)	50.8	38.6	24%

Source: Hidalgo, 2003



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6. Conclusion

Encouraging aspects



Statement from Cabinet Meeting 26 August 2009

- Cabinet is committed to implementing BRT in partnership with all stakeholders
- Improving public transport is not negotiable
- National government is committed to support and safeguard the city-led negotiation process
- Government condemns all threats of violence against BRT implementation
- Strong action will be taken against those who threaten or perpetuate any form of violence



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