Draft Green Transport Policy & Initiatives by Provincial Government:
3rd proSet Presidents’ Forum

21 August 2014
Planning According to Realistic Projections

The Projections

1. A 25 year Integrated Transport Master Plan has been approved introduced and sets the Transport Agenda for Gauteng over the next 25 years and with a shorter term 5 year implementation plan (GTIP5)

2. The Gauteng Air Quality management Plan (AQMP)

3. The Gauteng 2055 Discussion Document for the GCR

4. Census 20114. The current status of the provincial economy is described in the Gauteng Provincial Land Transport Framework (2009–2014), as well as in the Gauteng Employment, Growth and Development Strategy (GEGDS). This was based on the StatsSA Community Survey (2007)

5. The Mobility in the Gauteng City Region Report (July 2014)
Growing Alternative Transportation Energy Industries

The Pillars for sustainable Transport:

2. A reduction in travel; shorter average trips, and making fewer trips during peak periods facilitated through travel demand management measures and intelligent transport solutions.
3. A shift from private vehicle use to public transport and non-motorised transport, as well as a shift of freight transport from road to rail.
4. Promotion of alternative propulsion technologies, and energy and fuel sources.
5. Utilisation of technology to develop and operate transport infrastructure and facilities in a more sustainable manner (i.e. ‘green’ construction and use of solar power).
Technological Research and Adapting to SA’s circumstances

Currently various research conducted but deciding on what works is the issue:

**Standards**

- Ideally emission standards should range from Euro I to Euro VI dependent on:
  - fuel quality;
  - engine technologies;
  - emission-control technologies;
  - inspection and maintenance programmes, and driver training.

**Fuel Type:**

- Standard diesel; clean diesel; compressed natural gas (CNG)/biogas; liquid petroleum gas (LPG); bio-diesel, and ethanol.
- Further research and data on the lifecycle costing of alternatively powered public transport fleet is required.
- The use of environmentally friendly materials as well as recycling of waste materials also needs to be promoted.
- Continued research in these areas is essential to ensuring alternate technologies is introduced over the next 25 years and for decades to come.
Stimulating Innovation

Sustainable transport requires a major policy shift. Transport policy cannot be “business as usual’ or maintaining the current stance of transport policy requiring a transport policy path that stimulates rather than hamper the creative process that will lead to new innovation.

According to the Organisation for Economic Cooperation and Development (OECD):
“policies and instrument packages for sustainable transport are directed at the movement of people, and not freight; regulatory rather than fiscal; aim to achieve transport mode shifts and favour non-motorised transport alternatives (e.g. walking and cycling); and are seen as the responsibility of national and sub-national government departments and agencies.”

A shift to sustainable transport also implies a shift to goal-oriented demand management policies, instead of more traditional supply oriented policies.

Policies should be formulated with specific targets in mind (e.g. meeting an air quality standard). Barriers to moving towards environmentally sustainable transport include a lack of technical knowledge as well as a lack of knowledge on human behaviour and social organisation.
The ITMP25 and GTIP5
Gauteng in Relation to South Africa

- Gauteng, smallest of SA’s provinces and takes up 1.4% of the country's land area –
- Largest population of all the provinces, with 11.2-million people making up 22.4% of South Africa’s total.
- It has the highest population density: 658 people per square kilometer.
- The province dominates the SA economy
- Gauteng generates 33.9% of South Africa’s GDP and 10% of the total GDP of the entire African continent
- Johannesburg, capital city, one of largest cities in Africa
Gauteng: Spatial Arrangement

Home to three metropolitan municipalities, two district municipalities and seven local municipalities
Need for Integrated Transport?

• Considering Gauteng’s profile, the current land use patterns and traffic congestion do not sufficiently support long term, sustainable economic growth and development in the region.

• Hence the need for a pro-active long term integrated transport plan centred on public transport.
“What is the ITMP25?”

• It describes the **current reality of transport** in the Gauteng City Region, how it works and what value it adds

• The **population** and the **economy growth** in the **next 25 years** and impact on the transport system

• **Consequences** if we continue doing things the way we do:
  – Land use patterns remain unchanged
  – Continued preference to private vehicles as the transport mode of choice

• **5 Years - 13 key short-term initiatives**

• **Next 25 years**: Proposals on **10 significant transport interventions** to be implemented. Taking into account the National development Plan (NDP), the Gauteng Vision 2055 & various ITP’s developed by local Government

• **Funding options** - with various income streams.

• **Institutional arrangements** required to implement the 5-year Short-Term Implementation Plan and the proposed ITMP25

• Expected **outcomes and benefits** of doing what is being proposed
ITMP25 Vision

“An integrated and efficient transport system in Gauteng that promotes sustainable economic growth, skills development and job creation, fosters quality of life, socially includes all communities and preserves the environment.”
Key Focus Areas

- Priority public transport corridors
- Strategic modal transfer nodes and interchanges
- Freight routes and logistics centres (Hubs)
- Rail as the backbone of an integrated public transport system
- Protection of future priority corridors, future road networks, passenger and freight rail networks, and airports.
- The plan further includes a vision to support and strengthen the Gauteng Global City Region.
- Geographical Information Systems and Intelligent Transport Systems form a practical basis for the plan.
Economic Forecast

- Gauteng Base Scenario* was used for the Economic Growth Forecast, where growth is less than 6%
- Likelihood is estimated at <10% that growth would be > 6%

<table>
<thead>
<tr>
<th>Gauteng</th>
<th>2010</th>
<th>2025</th>
<th>2037</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population</td>
<td>11.2 million</td>
<td>16.3 million</td>
<td>18.7 million</td>
</tr>
<tr>
<td>Formal Workers</td>
<td>3.9 million</td>
<td>6.7 million</td>
<td>8.6 million</td>
</tr>
</tbody>
</table>

* Source: Global Insight 2013
GTIP5

Infrastructure (Optimise)
- PRASA Super Corridor
- Freight
- Airports
- New Roads
- Universal Access

Environment (Awareness)
- Non-motorised Transport
- ‘Green’ Transport

Operations (Integrate)
- Transport Authority
- Subsidised Bus Services
- Commercialise Taxi Industry
- Travel Demand Management
- Enforcement
- Optimum use of Infrastructure

Universal Access
# GTIP5 – 5-Year Key Short-term Initiatives

<table>
<thead>
<tr>
<th>Initiatives and Key Focus Areas</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Transport Authority for Gauteng</td>
</tr>
<tr>
<td>1.1 Provincial-wide Public Transport Information Centre</td>
</tr>
<tr>
<td>1.2 “One Province One Ticket”</td>
</tr>
<tr>
<td>2. Integration with the Commuter Rail Corridor Modernisation Project of PRASA</td>
</tr>
<tr>
<td>3. Restructured Subsidised Road-based Public Transport</td>
</tr>
<tr>
<td>4. Transformation of the Taxi Industry</td>
</tr>
<tr>
<td>5. Greener Public Transport Vehicles Technologies</td>
</tr>
<tr>
<td>6. Travel Demand Management, less congestion and shorter travel times</td>
</tr>
<tr>
<td>7. Access to Major Freight Nodes</td>
</tr>
<tr>
<td>8. International and City Airports</td>
</tr>
<tr>
<td>9. Pedestrian Paths and Cycle Ways</td>
</tr>
<tr>
<td>10. Continued Provincial Wide Mobility</td>
</tr>
<tr>
<td>11. Effective Management of Existing Transport Infrastructure</td>
</tr>
<tr>
<td>12. Regulation and Enforcement</td>
</tr>
<tr>
<td>13. Accessible Transport</td>
</tr>
</tbody>
</table>
Draft Green Gauteng Transport Policy
Content

1. Introduction
2. Problem Statement
4. Current Green Transport Interventions
5. Strategic Goals
Introduction

• Sustainable transport – meeting socio economic growth targets
• High carbon emissions linked to population and vehicle increase, high levels of energy consumption and inefficient transport modes
• (12.5 million to 18.7 million people and from 3.5 million vehicles to 6.7 million by 2037)
• ITMP: Environmental Change Drivers
Problem Statement

- Road transport is the primary source of CO2 emissions in South Africa.
- Gauteng - as its economic hub - is the largest contributor to the country’s emission index.
- The heavy reliance of its energy, transport, mining, industrial, commercial and agricultural sectors on road-based transport to move people and freight contributes both to a quicker deterioration of its road infrastructure and higher levels of greenhouse gas emissions compared to other provinces in the country.
- The pressures on transport and its associated infrastructure to develop are enormous and the increasing resources consumed to develop the transport sector will in the long term impact negatively on the environment.
- The fragmented approach to city, regional, provincial and national planning results in displaced urban development and distorted, fragmented, unequal and inefficient human settlement patterns. More specifically for the transport sector in Gauteng - that has to confront the legacy of apartheid spatial planning - the result has been the movement of people across long distances from home to work. This is both time consuming and costly. It entrenches a system of unequal access to resources and socio-economic opportunities. The resultant travel patterns have a substantial effect on atmospheric conditions, specifically on air quality, climate change and ozone depletion. It is clear that over time transport is likely to have an increasing impact on land resources, water quality, air quality and biodiversity.
Problem Statement

Gauteng Energy Consumption per Sector (Gauteng Department Of Local Government and Housing; )

Energy Demand per Carrier in Gauteng (Gauteng Department of Local Government and Housing, 2010)
Current Legislation

At the heart of the new policies is the Constitution, 1996, which provides that everyone has the right -

(a) To an environment that is not harmful to their health and wellbeing,

(b) To have the environment protected for the benefit of present and future generations, through reasonable and legislative measures that -

(i) Prevent pollution and ecological degradation;
(ii) Promote conservation; and
(iii) Secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development.
Current Legislation

• South Africa also is a signatory to the *Convention on Bio-Diversity*, (1992) and the *Kyoto Protocol*, (1997).

• Nationally the following legislation and policy statements have been approved, which has an important bearing on sustainable (green) transport:
  – *National Road Traffic Act*, (1996);
  – *National Land Transport Act*, (2009);
  – *National Environmental Management Act*, (1998);
  – *White Paper on National Transport Policy*, (1996);
  – *National Climate Change Response White Paper*, (2011);
Current Legislation

At provincial level the legislative and policy frameworks meant to deal more assertively with transport and carbon emissions are:

- Gauteng Integrated Energy Strategy, (2010);
- Strategy for a Developmental Green Economy for Gauteng, (2012);
- Department Roads and Transport - Air Quality and Noise Management Plan, (2012); and

At a municipal level, the Minimum Requirements of Integrated Transport Planning Regulations have relevance. Interestingly, the City of Johannesburg has an approved Non-Motorised Transport Policy.

Overall these aim to ensure that road transport is managed in a sustainable manner with the least possible impact on the environment. More specifically, they aim to:

- make public transport affordable, safe, reliable and accessible as an alternative to private modes of transport;
- reduce traffic congestion and carbon emissions;
- promote non-motorised transport by providing safe infrastructure for its use;
- ensure the use of environmentally-friendly materials in road construction and maintenance;
- ensure that spatial and route planning enhances green transport initiatives; and
- promote sustainable partnerships for better integration of various modes of transport.
## Current Legislation

### Reduction Targets:

<table>
<thead>
<tr>
<th>Document</th>
<th>Target</th>
<th>Target Objective</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Energy Efficiency Strategy, 2005</td>
<td>9% by 2015</td>
<td>Reduction in energy usage</td>
</tr>
<tr>
<td>Strategy for a Developmental Green Economy for Gauteng, 2005</td>
<td>15% (no year identified)</td>
<td>Reduction in use of private vehicle trips</td>
</tr>
<tr>
<td>State of Energy Report, City of Johannesburg</td>
<td>9% by 2015</td>
<td>Transport efficiency target</td>
</tr>
<tr>
<td>State of Energy Report, Ekurhuleni</td>
<td>15% by 2025</td>
<td>Reduction in travelling time</td>
</tr>
<tr>
<td>State of Energy Report, City of Tshwane</td>
<td>50% no date indicated</td>
<td>Conversion of diesel vehicles to bio-fuels</td>
</tr>
</tbody>
</table>
Current Green Transport Interventions

- Carbon Trading Markets
- Carbon Tax

NMT
Current Green Transport Interventions

Taxi Recapitalisation

New chapter in history of the Taxi Industry
Scraping of skorokoro (old) taxi vehicles
Saturday 28 October, Botshabelo Stadium, Free State

Minister of Transport, Jeff Radebe, officially announced the phase-out of the traditionally fuel-efficient taxi as an initiative to promote more environmentally friendly transport vehicles. He also emphasised the need to upgrade taxi service operators and their fleet to more fuel-efficient, energy-saving vehicles as approved by the South African Bureau of Standards (SABS).

The move is in line with government’s aim to phase out polluting transport vehicles in terms of the National Climate Change Policy. It is also to improve the conditions and safety for passengers and road users.

Minister Radebe said the government has decided to reduce the number of polluting vehicles on the road in order to improve air quality. The Minister said the proposal to scrap the skorokoro vehicles is in the best interest of South Africa and the health of our citizens.

The scrapped vehicles will be replaced with more fuel efficient, energy-saving vehicles. The scrapped vehicles can be purchased at auction and the proceeds will be used to upgrade taxi service operators and their fleet to more fuel efficient vehicles.

The Minister of Transport announced that all the scrapped vehicles will be auctioned off and the proceeds will be used to support the new fleet. The Minister also announced that the proceeds from the auction will be used to support the new fleet.

The Minister of Transport also announced that all the scrapped vehicles will be replaced with more fuel efficient, energy-saving vehicles. The scrapped vehicles can be purchased at auction and the proceeds will be used to upgrade taxi service operators and their fleet to more fuel efficient vehicles.
Current Green Transport Interventions

Prasa Rail Modernisation
Current Green Transport Interventions

Shova Kalula
Gautrain Rapid Link and Bus System
Current Green Transport Interventions

BUS RAPID TRANSIT
Current Green Transport Interventions

- Automotive Industry Development Centre’s Project on LPG

- Saneri CNG Trials
Strategic Goals

1. Making public transport reliable, affordable, safe, and accessible as an alternative to private modes of transport;
2. Reducing traffic congestion and carbon emissions within the province;
3. Ensuring that Intelligent Transport Systems are introduced and utilised to contribute to the reduction in the carbon footprint and traffic congestion within the province;
4. Actively promoting non-motorised transport and strive to provide safe road and pedestrian infrastructure for its use;
5. Ensuring the use of environmentally friendly materials in road construction and maintenance programmes;
6. Ensuring that Spatial and Route Planning enhances and promotes sustainable (green) transport; and
7. Forging partnerships with organs of civil society and academic institutions to undertake further research into and promote the sustainable (green) transport agenda.
Policy Statements

1. **The Department will ensure that it utilizes all available resources and co-ordinating structures within its means, to develop and promote the public transport system in a way that is reliable, safe, affordable, accessible, and environmentally friendly.**

   **Priorities:**
   - promote public transport modes as the more feasible, cost effective options to private vehicle usage;
   - promote the improvement; further development; extension, and expansion of rail systems to serve as the backbone of the public transport system in the province;
   - promote the development and integration of Bus Rapid Transit systems, particularly in metropolitan municipalities;
   - ensure better regulation of and control over the minibus taxi industry;
   - ensure that alternative modes of public transport are readily available where the need is identified through effective communication systems;
   - align public transport routes to provide for seamless mobility and reliability of services;
   - ensure that public transport operating licenses approved by the regulatory authority meet the required standards;
   - attach incentives to the usage of public transport for the commuters; and
   - to make information on public transport readily available with regards to routes, timetables, tariffs etc.
Policy Statements

2. The Department will actively strive to reduce traffic congestion and carbon emissions within the province.

Priorities:

- promote public transport as an environmentally-friendly means of travelling and commuting as opposed to private vehicle usage, thereby contributing to the reduction in traffic, particularly during peak times;
- maintain and develop the provincial roads network so as to ensure that there is a free flow of traffic in the province and that there are no unwarranted traffic congestion points;
- ensure that carbon emission reduction targets remain a priority throughout the province;
- ensure that air quality data centres within the jurisdiction of municipalities are effective in monitoring and evaluating data collected at these stations;
- hold municipalities accountable for ensuring that their Integrated Transport Plans include realistic plans to make public road-based transport more user-friendly and to minimize their carbon footprint within their respective jurisdictions;
- set minimum vehicle standards, particularly for public transport vehicles such as minibus taxis and busses; and
- reduce congestion by provision and application of Intelligent Transport Systems and of navigational aids e.g. road signs and route numbering and maps.
Policy Statements

3. The Department will ensure that Intelligent Transport Systems are introduced and utilised to secure a reduction in both the carbon footprint and traffic congestion within the Province.

Priorities:

- smart communication systems with commuters on transport related matters;
- the effective and efficient collection of transport data;
- the effective use of transport data in immediate route planning for the commuter or long terms route planning and alignment for the Province.
Policy Statements

4. The Department will actively promote non-motorised transport and strive to provide safe road and pedestrian infrastructure for its use.

Priorities:

• The Gauteng Transport Commission will co-ordinate and integrate non-motorised transport planning and provision. It must ensure that municipalities plan, design and provide for non-motorised transport modes within their Integrated Transport Plans and Pedestrian Management Plans;

• A provincial non-motorised transport policy will be developed, supplemented with non-motorised transport strategies approved by each metropolitan and district municipality. A cycle master plan must identify cycle corridors across the province;

• The Department will strive to operate and manage non-motorised transport networks in a safe, secure and accessible manner;

• The Department, in conjunction with relevant role-players, will promote a non-motorised transport culture, including road safety and awareness campaigns; and

• The Department, in partnership with the private sector, will continue its programme of distributing bicycles to learners.
Policy Statements

5. The Department will ensure the use of environmentally friendly materials in road construction and maintenance programmes.

Priorities:

• Promote on-going research in identifying more environmentally friendly materials to use within the construction and maintenance of roads; and

• ensure that the most environmentally friendly designs in construction and maintenance of the road network are utilized.
6. The Department will ensure that Spatial and Route Planning enhances and promotes sustainable (green) transport.

Priorities:

The Department, therefore, will align the strategic road and public transport networks (SRPTN) to the provincial spatial development framework that promotes densification and transit oriented development.
7. The Department will adopt an integrated and coordinated approach to sustainable (green) transport, and strive to build the capacity, skills and capabilities across the different spheres of government to implement this policy.

Priorities:

- Invest in technologies and research related to clean and more efficient fuel for vehicle propulsion;
- Support academic research and teaching programmes relating to sustainable (green) transport;
- forge partnerships with a wide range of organs of civil society to raise public awareness of the need for sustainable (green) transport and to achieve the strategic goals outlined in this policy;
- appoint dedicated personnel within available resources to implement this policy and to ensure compliance; and
- together with its partners, monitor and evaluate progress in the implementation of this policy.