Workshop on Sustainable and Healthy Urban transport

Sustainable Transportation in Tbilisi: current challenges and way forward

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Outline of the presentation

- Background information
- Current challenges
- Key barriers: Policy issues
- Consequences of existing policy: Health and Environmental aspects
- Positive transformations
- Recommendations and way forward
Background (1)

- The urban population in Georgia continues to increase;
- Tbilisi, with its 1.5 millions inhabitants, is home to more than 30 per cent of the population of Georgia;
- Mobile sources are responsible for an increasing share of total air emissions in Tbilisi, their contribution rising from 70% in 1991 to about 91% in 2005;
- Tbilisi is heavily overloaded by vehicles especially the old part with narrow streets;
- In 2000, 80 vehicles per 1000 inhabitants. In July 2005, 100 vehicles per 1000 inhabitants;
- Insufficient organization of traffic and parking increases congestions and air pollution problems.
Background (2)
Current challenges: description of fleet in Georgia (1)

Total moto-vehicles in Georgia (ths)

Age profile of vehicles (%)

Source: Department of Patrol Police of the Ministry of Internal Affairs of Georgia
Current challenges: description of fleet and related challenges in Georgia (2)

- The number of second-hand European cars has significantly increased;
- Catalytic converters are often destroyed or removed from imported cars;
- The share of Soviet-made cars is still high but it is decreasing;
- The inefficient car service system;
- The servicing is often performed by car mechanics without any special qualification or by garages without any certificate;
- There are no restrictions on the age of vehicles on the road, not even in the public transport sector.
Key barriers: Policy analysis

- The check-up of motor vehicles has been abolished since 2004 except for lorries and minibuses;
- There is no any “green” fees and taxes for import of second hand cars. More than 60% of cars are ecologically unfavorable;
- The quality of gasoline has not been controlled more than five years. Leaded petrol or sulfur contained petrol???
- No support to operation of the monitoring system for air quality in Tbilisi;
- Absence of co-ordinated goals and objectives for transport, city planning, environment and health protection at the national level;
- Absence of Short and Medium plans.
Data on the consumption of fuel in Georgia from 2000 to 2006 (tones)

Source: Department of Statistics of Georgia
Consequences of existing policy: Health and Environmental aspects (1)

Sources of atmospheric air pollution in 2005

- Road transport: 24.28%
- Energy: 44.44%
- Industry: 27.43%
- Agriculture: 3.86%

Dynamics of CO₂ emissions from transport sector

Source: Air Protection Division of the Ministry of Environment of Georgia
Consequences of existing policy:
Health and Environmental aspects (2)

Emissions of CO, SO$_2$, Soot, and VOC from transport sector

Source: Air Protection Division of the Ministry of Environment of Georgia
Consequences of existing policy:
Health and Environmental aspects (3)

- Poor fuel quality
- Lack of modern fuel-testing laboratories
- Health issues: Cancer and Respiratory illnesses
- Excessive noise
- Lack of monitoring and measurements on major pollutants ($\text{NO}_2$, $\text{SO}_2$, VOC)
- No measurements on $\text{PM}_{10}$ and $\text{PM}_{2.5}$
- No studies on health effects
Ongoing reforms
Positive transformations (1)

- The adjustments to “The Georgian Law on Traffic Safety” restricted the use of mobile phones by drivers;
- The use of safety belts became mandatory;
- Penalties for violations of road safety rules (high speed, drunkenness, etc.) have considerably increased.

Sources: Transport and Communication in Georgia, Statistical Yearbook, Statistic Department of Georgia
Positive transformations (2)

- Rehabilitation of road infrastructure and the introduction of cleaning equipment (52 units)
- Introduction of patrol police
- Rehabilitation of some green areas
Positive transformations (3)

- Preparation of GEF project on Promotion of Sustainable Transport in the City of Tbilisi was terminated; BUT
- UNEP DTIE and three countries from CEE (Armenia, Georgia and Moldova) can start developing a new project proposal;
- There would be 4 general components:
  1. High-quality public transport
  2. Non-motorised transport (NMT)
  3. Transportation Demand Management
  4. Awareness raising and outreach activities (for behavioural change)
- EU funding or ?
Recommendations and way forward (1)

- MOU on intersectoral cooperation;
- Preparation of a transport-demand management plan;
- Ban sulfur (high concentrations) contained gasoline and monitor of a ban on;
- Improvement of the air pollution monitoring system;
- Improvement of the public transport infrastructure and services;
- Special taxes on 12-15 years old vehicles;
- Increasing the number of environmentally friendly transport modes such as trolley and tram (the study should be done);
- Provide opportunities for the public to participate in the planning and decision-making processes of transport policy.
Recommendations and way forward (2)

Transport Demand Management:

**Goal:** Decrease the demand for motorized transport and demand for private transport.

- Improvement to the transport options:
  - The rehabilitation of the public bus sector (done);
  - The integrated ticketing system (under consideration);
  - Convenient, safe, clean, affordable public transport.

- Market and pricing reforms:
  - Special fees (London case);
  - Removing parking subsidies (20 cents per hour!!!)
  - Special Road pricing (not considered yet)
Parking and land-use management

- Special walking zones are not currently in Tbilisi;
- Bicycles paths can be introduced; there are not practically any, especially in the centre (special study is needed);
- Condition of pedestrian zones of the city’s streets to be urgently improved, particularly outside of downtown;
- A clear designation of bus stops shall also be helpful. (Minibuses whose drivers are accustomed to stop anywhere and at any time);
- The installation of parking ticket dispensers;
- Underground parking facilities.
Useful links:

- **US EPA transport and air quality:** [http://epa.gov/otaq/](http://epa.gov/otaq/)
- **WHO transport:**
  [http://www.euro.who.int/transport/modes/20021009_1](http://www.euro.who.int/transport/modes/20021009_1)
- **Centre for sustainable transportation:** [http://cst.uwinnipeg.ca/](http://cst.uwinnipeg.ca/)
- **UNEP Urban Environment Unit:**
  [http://www.unep.org/urban_environment/](http://www.unep.org/urban_environment/)
- **EU transport:** [http://ec.europa.eu/transport/index_en.html](http://ec.europa.eu/transport/index_en.html)
- **European Federation for Transport and Environment:**
- **JICA transportation:**
Thank you very much for Your attention!

Questions?

If you can’t measure it, you can’t control it…
If you can’t control it, you can’t manage it…
If you can’t manage it, you can’t improve it.

*From EU project “Strategies for public transport in cities”*