

# EBRD FINANCED TBILISI PUBLIC TRANSPORT PROJECT

## Case Study



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## Executive summary

Tbilisi, the capital of Georgia, with a population of more than 1.5 million people manifests all the signs of environmental stress - poor air quality, excessive noise, traffic congestion, loss of green areas and degradation of historical buildings and monuments. Road transport is responsible for an increasing share of total air emissions, their contribution rising from some 70 percent in 1991 to about 91 percent in 2005<sup>1</sup>.

During Soviet times, Tbilisi was served by around 1,200 buses and by electric transport facilities (trolley bus – 272 kilometres; underground – 27 kilometres; tramway – 36 kilometres)<sup>2</sup>. At this time problems already existed, especially during peak hours. After independence in the early 1990s, the “large-bus” and “electric transport”, focused model of the Soviet period collapsed due to financial constraints, and private operators started to complement the deficient public transport services through the introduction of numerous flexible and frequent minibuses, which covered almost all of the city.

After the “Rose Revolution”, Tbilisi municipality took the correct decision to reform the public transport management system and the European Bank for Reconstruction and Development (EBRD) was asked to provide support. In July 2005, the EBRD lent EUR 3,1m to the “Municipal Auto Transport Company Ltd” which is wholly owned by Tbilisi Municipality. The project was aiming to purchase 150 municipal buses, spare parts and workshop equipment and reform the regulatory framework for public transport in Tbilisi.

With regard to the environmental impact of the project, it was assumed that modernisation of the bus fleet would decrease traffic congestion, increase traffic safety, improve air quality and reduce emissions. In addition, the project document specified that fuel efficiency requirements would comply with the European Union’s environmental standards for urban buses<sup>3</sup>.

However, the implementation of the project has actually led to increased environmental and social stress, while the development of a sustainable public transport scheme that would mitigate existing problems is still not defined.

In September 2006, the government banned all minibuses from main avenues and substituted them with buses. The decision might have been successful if the amount of the buses had been sufficient. As there were only 500 buses working on a few routes within the centre, it led towards increased overloads on public transport. Additionally, in November 2006, the city government discontinued the tram and trolley fleet, which created an even more complicated situation for the citizens.

As a result, since the EBRD supported purchase of the so called “yellow” buses, which even became the face of the Rose Revolution for the Government, the environmental situation in Tbilisi has become much worse.

The EBRD Tbilisi public transport project attempted to establish and implement a fee collection system on public transport. However, the system was only introduced in July of 2007 after the doubling of bus service tariffs, and almost totally collapsed.

After a one month experiment<sup>4</sup> with the system, the conductors were fired<sup>4</sup> due to increased expenditures for the company related to the salaries of conductors and their supervision. This fact clearly shows that the decision to implement the ticketing system was not based on sound calculations and was made without proper planning.

One of the major problems related to the increased tariffs on travel fees is that Tbilisi municipality is not ready to develop measures to assist vulnerable people. While the authorities make assurances that the poorest section of the population will pay only half of the travel fee, the amount of people living under the poverty line is higher than has been identified by the municipal authorities. The 60,000 people identified excludes internally displaced people, veterans and pensioners, who represent a very vulnerable part of the population.

The project's economic viability and sustainability are questionable. While the city budget covers more than 50 percent of the company's expenses, including the covering of the EBRD loan, the losses of the company are increasing. In 2006, the company had losses of GEL 3m<sup>5</sup>, which should not be surprising, taking into account the fact that the company still has no estimation of the real number of passengers and no transparency in terms of real and fixed revenues and expenses related to the company's further development. While the company requested Tbilisi municipality to double the travel fee from July 2007, they have never presented the arguments in terms of pricing.

According to the income statement for the project for the first half of 2006, the self cost for transporting one passenger was 0,451 GEL, while the average adopted tariff was 0,209 GEL. This difference was supposed to be covered from the subsidy given by the municipality. According to the company, one of the biggest expenses relates to fuel costs which exceed the incomes from the transfer of passengers. This raises fears that 'shadow' money is greatly spread throughout the system. The Green Alternative rechecked this information with bus drivers to find out how much they spend on fuel. For instance, for bus number 44, one route requires 20 litres of diesel which costs GEL 28, while the planned income was GEL 33. According to the drivers they spent less on fuel than is assigned to the route.

There is much to be done in order to reform the public transport management system in a way which responds to the needs of Tbilisi's citizens but the top priority should be given to the development and public discussion of a Tbilisi City Sustainable Transport Management Plan (including tram, trolley, metro and buses) and undertaking a social assessment to identify mitigation measures for vulnerable people.

## Introduction

Tbilisi, the capital of Georgia, with a population of more than 1.5 million people manifests all the signs of environmental stress - poor air quality, excessive noise, traffic congestion, loss of green areas and degradation of historical buildings and monuments. Many stresses, especially from transport, are increasingly leading to a deterioration in the quality of life and human health. Four-fifths of Tbilisi air pollution results from motor transport. One part is due to deficient traffic management and the other to the poor technical condition of vehicles.

During Soviet times, Tbilisi was served by around 1,200 buses and by electric transport facilities (trolley bus – 272 kilometres; underground – 27 kilometres; tramway – 36 kilometres)<sup>6</sup>. At this time problems already existed, especially during peak hours.

After independence in the early 1990s, the "large-bus" and "electric transport", focused model of the Soviet period collapsed due to financial constraints, and private operators started to complement the deficient public transport services through the introduction of numerous flexible and frequent minibuses, which covered almost all of the city. The use of electric transport, which needs more or less centralised management, has declined. There are no restrictions on the age of vehicles on the road, even in the case of public transport. Road transport is responsible for an increasing share of total air emissions, their contribution rising from some 70 percent in 1991 to about 91 percent in 2005<sup>7</sup>.

The poor public transport system facilitated a rapid increase in private cars, especially second hand cars from abroad. As a result, the city began to suffer from increased traffic jams and air pollution<sup>8</sup>. Some researchers also came to the conclusion that the high incidence of respiratory and circulatory diseases in the capital was related to the high levels of air pollution<sup>9</sup>.

After the "Rose Revolution", Tbilisi municipality took the correct decision to reform the public transport management system and the European Bank for Reconstruction and Development (EBRD) was asked to provide support.

## EBRD project description

In July 2005, the EBRD lent EUR 3,1m to the “Municipal Auto Transport Company Ltd” which is wholly owned by Tbilisi Municipality. The main objectives of the project were to:

Finance the purchase of 150 municipal buses, spare parts and workshop equipment; and Reform the regulatory framework for public transport in Tbilisi.

To fulfill the above-mentioned objectives, in conjunction with commercialisation of a municipal bus company, the EBRD project envisaged the development of a Public Service Contract (PSC), that clearly defines and allocates responsibilities for service delivery, finances, safety, tariff setting, passenger control, marketing, ticketing, fare evasion and handling customer complaints.

In addition to the project loan, it was assumed that an additional grant would be provided by the EBRD ETC fund<sup>10</sup> to “Municipal Auto Transport Company Ltd.” to help make its operation comply with international standards. The grant aimed at the creation of a Tbilisi public transport regulation framework and development programme for the project sponsor<sup>11</sup> including business plan, environmental management plan and fee collection system development.

With regard to the environmental impact of the project, it was assumed that modernisation of the bus fleet would decrease traffic congestion, increase traffic safety, improve air quality and reduce emissions. In addition, the project document specified that fuel efficiency requirements would comply with the European Union’s environmental standards for urban buses<sup>12</sup>.

## Project implementation

However, the implementation of the project has actually led to increased environmental and social stress, while the development of a sustainable public transport scheme that would mitigate existing problems is still not defined.

The decision taken by the EBRD was to purchase 150 secondary buses within the project<sup>13</sup>. Despite the fact that the newly purchased secondary buses use 25 percent less fuel than the old ones<sup>14</sup>, the secondary buses do not comply with EURO II environmental standards. The EBRD made an exception<sup>15</sup> and allowed the purchase of buses that only comply with EURO I environmental standards. The reason given for the decision was that: “Existing diesel fuel in the country does not comply with EURO standards thus buses were purchased that could be harmed less by the existing fuel”,<sup>16</sup> and the hope that catalytic converters would be installed which could reduce emissions<sup>17</sup>.

In the environmental report made by “Scott Wilson Business Consultancy” under the EBRD financed Tbilisi Public Transport Project, it is pointed out that in the Tbilisi Bus company no equipment exists that can measure the pollution level of each bus<sup>18</sup>. Taking into account the fact that the annual technical inspection of vehicles has become voluntary since 2004, in reality there is no state agency that can check and take any steps to improve vehicle air emission<sup>19</sup>. The EBRD accepted the situation rather than requiring from the city government and/or the project sponsor the development of a special facility to check the pollution level of each bus. As a result it is not uncommon to see the buses in question emitting black smoke.

Taking into account the loan from the EBRD, as well as subsidies allocated by the Municipality, it may seem surprising, but bus drivers are increasingly complaining about lack of spare parts and having to wait for several weeks or even months to obtain them. Due to this, they have to re-use spare parts of old Russian buses and use them in the new secondary buses. Cases where even technicians cannot understand what is wrong with a bus or do not have suitable equipment for its repair are not uncommon. As a result, buses are stuck in the depots for several weeks or months and even in the best scenario only half of the buses are on the roads leading to constant overcrowding and people having to wait longer.

Keeping the above in mind, it is not surprising that the promises of safer transportation have never been fulfilled. There have been a number of accidents related to buses such as a case when a large yellow bus was severely damaged during a trip or another case when a bus was even fully burnt as a result of an electric connection problem. These accidents could have been even worse if more passengers had been on the buses<sup>20</sup>.

## Regulation of Tbilisi public transport scheme

The decision of the city government to make a regulatory framework for public transport efficiency was not fulfilled by the steps which were undertaken. In September 2006, the government banned all minibuses from main avenues and substituted them with buses. The decision might have been successful if the amount of the buses had been sufficient. As there were only 500 buses working on a few routes within the centre, it led towards increased overloads on public transport. Additionally, in November 2006, the city government discontinued the tram and trolley fleet, which created an even more complicated situation for the citizens.

As a result of public protest due to the lack of public transport, the government decided to allow minibuses to work on some central routes on the parallel, mainly uphill streets, instead of avenues. Frequent movement of mini vans, none of which comply with technical norms, on old narrow streets, not only pollutes the air but also increases the probability of damaging old houses.

This “solution” cost citizens a great deal of money, as they were forced to use three different means of transport to get from the suburbs to the centre which increases the journey time. To get from Nadzaladevi to Vake for instance, a passenger needs to take a minibus to the nearest metro station, then a metro to Rustaveli Avenue and then a bus to Vake. This not only increases the journey time but is also more expensive<sup>21</sup>.

As a result, since the EBRD supported purchase of the so called “yellow” buses, which even became the face of the Rose Revolution for the Government, the environmental situation in Tbilisi has become much worse. People have already started to use more private cars and taxis to reach the city centre, which increases auto transport movement. The discontinuation of the tram and trolley fleet also increased auto transport in the centre (buses, minivans, and private cars), which means almost constant traffic jams in the city centre.

## Travel fee collection on public buses

The EBRD Tbilisi public transport project attempted to establish and implement a fee collection system on public transport. However, the system was only introduced in July of 2007 after the doubling of bus service tariffs, and almost totally collapsed.

According to the project sponsor of the system, the main obligation of conductors was to sell tickets and accumulate revenues. The salary of conductors was 10% of the whole revenue.

After a one month experiment with the system, the conductors were fired<sup>22</sup> due to increased expenditures for the company related to the salaries of conductors and their supervision. This fact clearly shows that the decision to implement the ticketing system was not based on sound calculations and was made without proper planning.

After the abolition of the conductor system, the duty of fee collection returned to the bus drivers. There is no controlling mechanism over fee collection. If a passenger wants to buy a ticket he/she has to insist. One ticket can be used for multiple journeys as nobody will be aware whether the ticket is old or has just been purchased.

This moves things towards the situation as it was number of years ago and does not represent any improvement. There is no fair and transparent fee collection system in place, which can be controlled and supervised.

## Increased tariffs on buses

One of the major problems related to the increased tariffs on travel fees is that Tbilisi municipality is not ready to develop measures to assist vulnerable people. While the authorities make assurances that the poorest section of the population will pay only half of the travel fee, the amount of people living under the poverty line is higher than has been identified by the municipal authorities. The 60,000 people identified excludes internally displaced people, veterans and pensioners, who represent a very vulnerable part of the population. In addition, as a result of poorly planned travel routes, these vulnerable people often need to use a number of transport modes to complete their journeys. The discount card system that is to be established from July 2007 – and where each journey will be counted – will be an ineffective system because of the complicated movement of public transport.

During the run up to the presidential election in December 2007-January 2008 some assistance was re-introduced for some groups of vulnerable people.

## The project's economic viability

The project's economic viability and sustainability are questionable. While the city budget covers more than 50 percent of the company's expenses, including the covering of the EBRD loan, the losses of the company are increasing. In 2006, the company had losses of GEL 3m<sup>23</sup>, which should not be surprising, taking into account the fact that the company still has no estimation of the real number of passengers and no transparency in terms of real and fixed revenues and expenses related to the company's further development. While the company requested Tbilisi municipality to double the travel fee from July 2007, they have never presented the arguments in terms of pricing.

The situation will not change until the company introduces a fair fee collection system. Until now, the income from buses has been estimated depending on the bus model and the route, rather than on clear indicators. While the municipality is arranging the tender for new electronic ticketing devices<sup>24</sup>, bus drivers are saying unofficially that the company has a plan for each route for the amount of 56 GEL, and 280 GEL<sup>25</sup> for a whole day. (this is comparable to the estimated income till July 2007, depending on the bus model and the route. This amount fluctuated from GEL 80 to 210 per day)<sup>26</sup>. Despite the claims of the General Director of Tbilisi Autobus Ltd. that they control the inner system and bus drivers are under strict control to sell tickets, in fact the drivers are not selling the tickets at all. They simply calculate the income and throw away the relevant amount of the tickets<sup>27</sup>.

All of the above mentioned raises doubts that neither the Tbilisi municipality itself nor the bus company is interested in introducing a fair fee collection system in the public transport system. The doubts are even greater, if we recall the fact that in 2006, the Irish consulting group "CIE" was obliged to prepare a movement regulation scheme and propose a ticketing system in 2007, based on the EURO 200,000 tender it won under the EBRD project<sup>28</sup>. However, no member of the public has ever seen this regulatory scheme and no public hearing regarding transportation and a fee collection system has been discussed with the general public.

## The Project's transparency and corruption

There were a number of alerts with regard to corrupt deals in the project. According to an investigative journalist group, as part of the agreement between the Municipal Transport Department and the Dutch Company "WOMY Equipment Supply B.V.", signed in April 2004, EUR 10,500 was paid per bus<sup>29</sup>. A year later it turned out that within the auspices of the EBRD

project for the same type of secondary bus, the municipality paid EUR 15,000. This created a major scandal and resulted in the resignation of the boss of Tbilisi Public Transport Department.

There are many questions and doubts within society about the project and overall management of the Tbilisi Bus Company. However, in an interview, according to the director of Tbilisi Bus Company, civil society has no right to know what methods are used by the company to accumulate revenues due to the fact that it is a commercial organisation and such information is confidential<sup>30</sup>.

According to the income statement for the project for the first half of 2006, the self cost for transporting one passenger was 0,451 GEL, while the average adopted tariff was 0,209 GEL. This difference was supposed to be covered from the subsidy given by the municipality. According to the company, one of the biggest expenses relates to fuel costs which exceed the incomes from the transfer of passengers. This raises fears that 'shadow' money is greatly spread throughout the system. The Green Alternative rechecked this information with bus drivers to find out how much they spend on fuel. For instance, for bus number 44, one route requires 20 litres of diesel which costs GEL 28, while the planned income was GEL 33. According to the drivers they spent less on fuel than is assigned to the route.

The problems related to the project's transparency have resulted in a number of scandals regarding the violation of procurement procedures, and public participation in key decisions concerning transport regulatory framework development has been prevented. In spite of a number of requests to arrange public participation to discuss environmental management plans and Tbilisi city transport, the management plan has never been discussed with major stakeholders. Moreover, these plans have never been published by Tbilisi municipality.

There are many stakeholders including bus and minibus drivers, as well as the general public who should have a say about further developments in the Tbilisi public transport sector. Sadly, they are forced to rely on rumours, sometimes of a frightening nature, rather than being involved in the decision-making process<sup>31</sup>.

## Conclusion

There is much to be done in order to reform the public transport management system in a way which responds to the needs of Tbilisi's citizens. There are many issues but top priority should be given to the following:

- The development and public discussion of a Tbilisi City Sustainable Transport Management Plan (including tram, trolley, metro and buses);
- Make available all necessary documents in order to assess the financial and commercial problems within the public transport system and develop a plan to overcome them;
- Develop new routes for all above mentioned transport means as part of a public transport scheme with maximum possible efficiency which covers the whole city;
- Undertake a social assessment to identify mitigation measures for vulnerable people;
- Organise a public consultation to discover ways for the design of optimal travel fees, a ticketing system, as well as to discuss environmental problems related to the existing public transport scheme;
- The municipality should ensure that all new equipment and transport means purchased in future apply at least EURO II standard.

There is also a need to publicly evaluate the outcomes of the EBRD project and put it on the sustainability track:

- Transparently publish all the relevant documentation related to the Tbilisi Public Transport Project (Environmental Management Plan, Transport Management Plan, financial calculations, Social Mitigations Plan) for wider public discussion;

- Publish the Business Plan for the Tbilisi Bus Company development;

In addition, to reduce air pollution and improve the environmental conditions of the city, it is very important to equip EBRD purchased secondary buses with relevant catalytic converters to reduce air emissions, and bus depots with all suitable equipment to measure the pollution level of each bus.

# Footnotes

- 1** Background document of workshop on Sustainable Urban Transport and Land Use Planning: “Challenges and solutions for sustainable urban transport in Tbilisi”, page 6; 18-20 October, 2006;
- 2** Workshop: “Challenges and solutions for sustainable urban transport in Tbilisi”-Background document; 18-20 October 18-20, 2006, held in Tbilisi, Georgia;
- 3** <http://www.ebrd.com/projects/psd/psd2005/35602.htm>
- 4** They had 3 month working contracts;
- 5** Report of Audit company “Mrcheveli”, March 28, 2007;
- 6** Workshop: “Challenges and solutions for sustainable urban transport in Tbilisi”-Background document; 18-20 October 18-20, 2006, held in Tbilisi, Georgia;
- 7** Background document of workshop on Sustainable Urban Transport and Land Use Planning: “Challenges and solutions for sustainable urban transport in Tbilisi”, page 6; 18-20 October, 2006;
- 8** It should be mentioned that till now a number of central avenues are still used by transit trucks and buses.
- 9** A special investigation of the state of health of 7-17years old children was carried out. Two districts were selected for study – central, with permanently heavy traffic and high air pollution and a suburb, where the traffic is less intensive, as a control district for comparison. The following results were obtained: Level of respiratory illness higher among the children from central district than among those from the suburb. Also skin diseases were 2.5 times higher. Some changes in immune system are evident too. Review of the Health Effects from Motor , Vehicle Traffic in Tbilisi, Dr. Ketevan Samadashvili, AIRNET;
- 10** Early Transition Countries fund (ETC fund);
- 11** N 04/03-45 Response letter of Zurab Chikviladze, chief of Tbilisi Transport Department; April 27, 2006;
- 12** <http://www.ebrd.com/projects/psd/psd2005/35602.htm>
- 13** As a whole till today the Municipality has bought slightly more than 500 buses from which 150 buses were bought within the EBRD loan agreement;
- 14** N 04-10/421 the response letter of Zurab Chikviladze, chief of Tbilisi Public Transport department, May 31,2006;
- 15** By making such an exception the EBRD not only violated its policy but also created more complex problems during the implementation;
- 16** The response letter N 04/10-42; May 31, 2006
- 17** Workshop on Sustainable Urban Transport and Land Use Planning, held in Tbilisi in 18-20 October, 2006;
- 18** “Scott Wilson Business Consultancy”: “Improving Performance in Complex Environments”, page 28; May 2005;
- 19** 2004 amendment to “The Georgian Law on Traffic Safety”;
- 20** “The Georgian Times”; “The bus was fully burnt on Chavchavadze avenue”; December 11, 2006;
- 21** Travel fee doubled in public transport from July 1, 2007;
- 22** They had 3 month working contracts;
- 23** Report of Audit company “Mrcheveli”, March 28, 2007;
- 24** According to media information the tender was supposed to be finalised by December 25<sup>th</sup>, there is no new information about the issue till now.
- 25** The Yellow Bus Bikers: Ticketless Passengers, <http://www.humanrights.ge/index.php?a=article&id=1918&lang=en>

- 26** October 23, 2007 vice chief of Tbilisi Transport Department, Akaki Jokhadze; N 05-10/1385; November 17, 2006;
- 27** Burden in Yellow buses, 8 September, 2007, newspaper Resonansi, N241
- 28** "Rezonansi": "Tbilisi transport scheme will be regulated by Irish"; September 16, 2006;
- 29** "New 7 Day" June 30, 2006 #25: Agreement signed in April 6 2004 between Municipal Transport Department and Dutch Company "WOMY Equipment Supply B.V." to supply DAF SB 220 model secondary buses;
- 30** Humanrights.ge – "Passengers without tickets in yellow buses"; October 22, 2007;
- 31** The Major plans to reduce the amount of minibuses, Municipality works over new transport scheme, 12 September, 2007, newspaper Resonansi, N245.



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