Case Study

MetroBus: Going through a Sustainable Transport Network in Buenos Aires City

Argentina

September 2014

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Quick facts	
Zone	Buenos Aires City
Programme started	2011
Topic	Transport sustainability
Implementing Agency	Local Government

Introduction

Buenos Aires is the biggest city in Argentina, with a population of about 3 million residents. The traffic network is not only used by local citizens, but also by the 3 million people that enter the city each working day[1]. As a consequence, the city suffers large traffic congestions generating negative externalities such as higher levels of GHG emissions, long travel times, major delays, discomfort and unproductivity. It is estimated that citizens on average spend 56 minutes to go or come back from their place of work. People that live outside the capital spend on average 120 minutes traveling per trip[2].

In order to resolve this serious issue, the local government implemented an integral Sustainable Mobility Plan, with the aims of reorganizing traffic, making it safer, improving quality of life and reducing environmental impact. This program involves a number of initiatives:

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- The creation of the MetroBus, the first Bus Rapid Transit System in the country.
- Implementation of articulated buses.
- The launch of the Ecobike Program and extension of bike paths.
- Expansion of the metro system.
- Extension of pedestrian zones and widening of footpaths.
- Adoption of information systems and intelligent traffic management.

About the Project

The MetroBus (MB) is a Bus Rapid Transit System (BRT)[a] and one of the core programs of the Sustainable Mobility Plan. The system functions with traditional and articulated buses that drive in exclusively designated lanes in the center of the street, connected with elevated stations. Each MB corridor is operated by a variety of bus lines. Depending on the bus line, the trip can cover the entire MB corridor or just one section.

MB J.B Justo was the first line to be inaugurated in 2011, followed by MB 9 de Julio and MB Sur, in 2013. Nowadays, the Network has 38.5 km of extension and is used daily by 600,000 people.

By 2015, it's projected that four new corridors will be launched, and the MB will cover a total of 67 km, expanding service to another 1,200,000 daily users[3].

Impacts and benefits

It is difficult to accurately measure the real impact of the MB in the public transport network due to the fact that it has recently been launched, and new lines are currently being developed and constructed. However, the local government estimated that so far, the implementation of MB has reduced average travel times in key routes by about 20 to 40 *per cent*, even up to 50 *per cent* or more[3]. As a result, the demand for MB J.B Justo is estimated to have increased by 25 *per cent* since system conception. This rise is meaningful, as it shows the increase in the incentives for users to choose public transport in relation to private vehicles, and can have important effects in reducing carbon emissions of the latter. Government sources indicate that the implementation of MB reduced fuel consumption of MB buses by 20 *per cent*[b].

Regarding security issues, designated lanes permit driving in a straight line by minimizing abrupt stops resulting in better security. Additionally, the MB is more inclusive due to better accessibility. It's easier for older persons, handicapped and pregnant women to get on board the buses.

Conclusion

Although the MB Network is still under construction and the impacts need to be analyzed in more depth, there are signs that MB has had positive effects in relation to environment, time and transport efficiency. These results and the great potential of the system can help in minimizing the negative externalities of traffic congestion, and transform Buenos Aires in a more sustainable city.

The BRT networks are growing fast in Latin-America as an alternative and cheaper way of transport, in comparison with other means such as the Metro or the Light Rail Transit system which require bigger investments. In spite of this economic advantage, the systems that use fuel buses and carbon emissions should become an issue of concern. For this reason the MB network should move forward by transforming the transport network to more ecologically efficient by switching fuel buses into Eco-ones.

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[a] A BRT is a Bus Rapid Transport System implemented in a variety of countries. Due to the necessities and characteristics of each city, each BRT has their own particularities. However, one of the main characteristics of the BRT system is the utilization of exclusive bus lanes with the aim of increasing the commercial speed and improving the reliability of travel time and the comfort of passengers[5].

[b] With the implementation of MB, the stations between each other changed from 200mts to 400mts in distance. This has generated debates that question which is the real proportion of travel time that has been reduced by the MB system implementation.

References

The following documents informed the development of this paper:

[1] Modelo territorial - Buenos Aires 2010-2060, Capitulo 2 'La ciudad Actual'. Subsecretaria de Planeamiento/Ministerio de Desarrollo Urbano/ Gobierno Autónomo de la Ciudad de Buenos Aires (2011). Available at: http://www.ssplan.buenosaires.gov.ar/MODELO%20TERRITORIAL/2.%20Ciudad%20Actual/2_ciudad_actual.pdf. Retrieved 23/09/2014

[2] Savia, Agustín (2007). "Ir y volver del trabajo, horas bajo la lupa". Observatorio de la Deuda Social Argentina. Edición Impresa: Empleos La Nación, Domingo 14 de enero de 2007. Available at: http://uca.edu.ar/uca/common/grupo32/files/07-01-14-la-nacion.pdf. Retrieved 23/09/2014

[3]City Climate Leaders awards, 'Buenos Aires: Plan for Sustainable Mobility'. Available at: http://cityclimateleadershipawards.com/buenos-aires-plan-for-sustainable-mobility/. Retrieved 22/09/2014

[4] Plan de Movilidad Sustentable, Gobierno de la Ciudad de Buenos Aires, - MetroBus. Available at: http://movilidad.buenosaires.gob.ar/metrobus/metrobus-9-de-julio/. Retrieved 22/09/2014

[5]CEPAL (2012) "Qué es un BRT, o la implementación del Metrobús en la ciudad de Buenos Aires, Argentina" Boletín FAL, Edition Nº 312, number 8, Available at: http://www.cepal.org/transporte/noticias/bolfall/2/48952/FAL-312-WEB.pdf. Retrieved 23/09/2014

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