



# TUMI INITIATIVE'S TRANSFORMATIVE STORIES

## LA PAZ, BOLIVIA: MODERNIZING PUBLIC TRANSPORT THROUGH INNOVATIVE AND WELL-DESIGNED SOLUTIONS

Until recently, La Paz was known for its diesel-powered, chaotic public transport. Thanks to public investments, the municipalities of La Paz and El Alto are now connected by the highest and largest cable car system in the world, while the modern fleet of PumaKatari buses helps improving mobility in the city of La Paz.

### ABOUT LA PAZ

Located southeast of Lake Titicaca, the municipality of La Paz is nestled in a valley created by the Choqueyapu River. While Sucre is the constitutional capital of Bolivia, La Paz is the seat of the government and the presidential palace. With an elevation of about 3,650 meters above sea level, La Paz is the highest de facto capital city around the globe and is home to MiTeleferico, the largest and highest urban cable car network in the world. Its metropolitan area is the most populated in Bolivia and is comprised of the municipalities of La Paz, El Alto and Viacha. La Paz is also the second most important economic center in Bolivia after Santa Cruz, contributing to 24 percent of the country's Gross Domestic Product in 2013. Its main economic activities include business services, manufacturing, public administration and commerce.

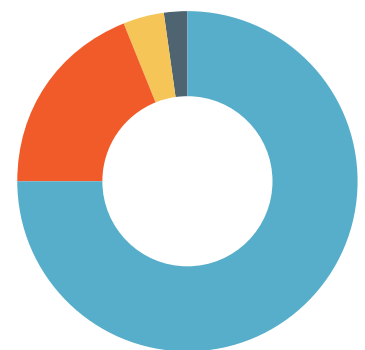


**Population (IBGE forecast):**  
812,799 (2018 estimates)

**Land area:**  
472 km<sup>2</sup>

**MODAL SPLIT (Metropolitan Area of La Paz, 2014)**

75% public transport  
19% walking  
4% private transport  
2% other



## MOBILITY IN LA PAZ

With narrow and winding streets and 2.7 million daily trips, congestion in the metropolitan area of La Paz is a common occurrence (La Paz Sustainable Urban Mobility Plan, 2012). According to the Municipal Mobility Watch, daily travels increased by 33% compared to 2012, reaching 3.7 million in 2017.

In the Metropolitan Area of La Paz, people rely heavily on public transportation, with approximately 75 percent of daily trips done by minibuses, city buses or taxi with fixed routes (trufis).

The congestion and air pollution issues in La Paz are compounded by the increasing number of second-hand cars and the public transport system's poor services. In Bolivia, the ratio between the number of vehicles and population size has grown considerably in the past decade. The number of cars registered tripled between 2003 and 2012 and the number of vehicles soared from 443.888 to 1.206.743 (UNDP, 2015).

In 2011, the "General Transportation Law" was introduced at the national level. Following its framework, the city of La Paz initiated a public consultation process to gather feedback to incorporate in the La Paz Municipal Transportation Law. This consultation contributed to the creation of the Municipal Transportation System (SETRAM) by the Mayor's Office, as well as better regulations for the city's chaotic transport systems of outdated minibuses, city buses and trufis.

In 2014, the municipal bus service PumaKatari and MiTeleferico La Paz-El Alto (La Paz-El Alto cable car) were introduced. These two modern transport systems have proven that good and safe public transportation in the area is possible.

## THE PUMAKATARI BUSES, A SYMBOL OF PROGRESS

Approximately 80% of public transport vehicles are older than 17 years old according to the Municipality of La Paz. The old fleet and lack of organization between transport operators led the city's public transport system to be characterized by unsafe behavior and low quality services. This situation started to shift in 2014, when 61 PumaKatari buses were put into service. This modern municipal fleet has been specially manufactured for the height and specific conditions of La Paz. Branded with a unique design with Tiwanakotas illustrations, one PumaKatari bus has the equivalent capacity of a few minibuses and trufis, and they operate with semi-dedicated lanes with fix stops outside of the city center. PumaKatari buses are part of the image of the city of La Paz and have contributed to increase standards: as more and more residents experience comfortable and reliable transport services, they started to demand a similar treatment from the traditional unionized minibuses, where vehicles are often overcrowded and in poor conditions.

The initial investment of approximately ten million euros allowed the city to purchase the 61 buses and to build and equip a maintenance facility. The plan for 2015 included additional routes and the acquisition of 73 new PumaKatari buses. In late 2018, smaller PumaKatari buses were piloted for the periphery with the aim of putting them in service in 2019. To make cycling more attractive, experts and cycling campaigners have highlighted the importance of creating a cycling culture and changing travel behavior. To encourage the use of bicycles as a daily mode of transport, Niterói has implemented various campaigns and programs, including intercultural cycling tours, car-free day as well as educational campaigns aimed at the general public and specific groups such as school children. The city has also embraced social media to gather feedback and disseminate information to help motorists, cyclists and pedestrians coexist in harmony.



## MITELEFERICO: CABLE CARS FOR DAILY COMMUTES CONNECTING TWO MUNICIPALITIES

Connecting El Alto and La Paz has always been challenging. A single congested highway goes from La Paz, which lies in a valley, to El Alto, which is built on a higher plateau. Adding traditional infrastructure such as additional roads and metro systems were not deemed financially or technically viable options. The region's unique mountainous topography called for an ingenious solution: a system of interlinked cable cars designed for daily commutes and operating at 4,000 meters above sea level.

Since 2014, MiTeleferico has not only helped improving mobility, but it has also become a symbol of social inclusion and had positive effects on the life of the two million inhabitants of La Paz and El Alto. MiTeleferico offers clean and quiet carriages at an affordable rate. It has reduced commuting times significantly and provided better access to jobs and services located in the center of La Paz to people living in El Alto, who are mostly from the Aymara ethnic group. The infrastructure installed for MiTeleferico requires less land use than the construction of a new road or metro line, thus people did not need to relocate and most homes were protected. The system also runs on electricity (and partly on solar energy), which is more environmentally friendly than the diesel-powered minibuses. It has also become one of the most visited tourist attractions, thanks to its spectacular views over the Andean snow caps surrounding the big and sprawling cities.

As of 2019, MiTeleferico El Alto-La Paz includes ten interconnected cable car lines marked with different colors going from red to silver. The total investment for the project has been 740 million US dollars (660 million euros). While it will take years to recover the initial investment, according to MiTeleferico, the system has already achieved financial sustainability, generating an accumulated operational surplus of 40,580,474 bolivianos (approximately 5.2 million euros). Apart from being the highest and largest cable car system worldwide, MiTeleferico also holds the world record for transporting 194,971 people in a single day.

Since its opening, a lot of efforts were put into awareness campaigns to introduce residents to this new urban mode of transport. For instance, Bolivian President Evo Morales was MiTeleferico's first passenger, and 24,000 children were invited to try the system for free on Children's Day.

The cable car system led to the creation of the so-called "MiTeleferico Culture," which consisted in planting 100 million trees and placing green areas around stations, promoting social causes such as children, women and elderly rights, as well as supporting art and music events.



Moving forward, while both PumaKatari buses and MiTeleferico project a modern image of public transport in the Metropolitan Area of La Paz, the systems' capacities only cover part of the demand. Further transport integration amongst different modes is required to better address the growing demand for mobility services and traffic mitigation solutions. It is also important to mention that in the Territorial Plan for Integral Development and the 24/7 Government Program of Mayor Dr. Luis Revilla (2015-2020), La Paz aims to promote alternative modes of transport, especially the use of bicycles. The Technical Unit of the Pedestrian and Cyclist, a division focusing on promoting non-motorized transport, was created in 2015. Since 2017, the city enjoys regular Car-Free Sundays, during which residents can experience recreational bicycle lanes throughout the city. The Municipality also conducts surveys on those days to gather information and feedback from participants on topics such as frequency of bicycle use. The city has also developed an Integral Plan for a Bicycle Infrastructure Network, with Phase I ready to be implemented.





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## ACKNOWLEDGMENTS

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The [Transformative Urban Mobility Initiative \(TUMI\)](http://transformative-mobility.org) enables leaders in developing countries and emerging economies to create sustainable urban mobility. It offers technical and financial support for innovative ideas. In TUMI the German Federal Ministry of Economic Cooperation and Development (BMZ) has brought together some of the world's leading institutions working on sustainable mobility with city networks and think tanks to implement projects on site where they are needed most. Partners include ADB, CAF, WRI, ITDP, UN-Habitat, SLoCaT, ITDP, ICLEI, GIZ, KfW and C40. [transformative-mobility.org](http://transformative-mobility.org)

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## ADDITIONAL READING

Municipality of La Paz - Municipal law nr. 0115. Retrieved from: <http://autonomias.gobernacionlapaz.com/>

UNDP. (2015). National Report on Human Development in Bolivia.