

## **Aztec Bikes**

### **Mexico and the surrounding areas**

In the heartland of Mexico, It's the Metropolitan Area of Mexico City (MAMC), comprising 60 municipalities belonging to the states of Mexico and Hidalgo and 16 delegations of the Federal District, covering an approximate area of 7,854 km<sup>2</sup> and a population of more than 21 million. This puts the MAMC behind other city areas such as Tokyo, Japan with 31 million or Jakarta, Indonesia and Seoul, South Korea, both with 24 million.

However, the MAMC becomes a megalopolis to integrate other areas such as the Puebla-Tlaxcala, Toluca-Lerma and the cities of Cuernavaca, Cuautla, Pachuca and Tlaxcala reaching 173 municipalities and more than 35 million inhabitants.

The city is an important commercial and cultural center of the country, is popularly known as the city's museums, is home to many internationally renowned personalities among them artists, athletes and entrepreneurs, has been the scene of several historical chapters of the country and today is one of the most popular cities in the world due to his charisma, pollution levels and cultural diversity.

### ***Transport in the capital city***

And how people are transported in the city? In the MCMA, there are 6 million cars in which people travel distances of 20 to 35 km at an average speed and 15 km / h at peak travel times by up to 2.5 hours per trip, leaving Mexico with one of the worst travel times of the world only under Beijing, China. Also there are taxis and many bus routes that suffer from traffic conditions in the city.

Added to this there are other transportation options for the capital, the Metrobus (BRT) opened in 2005 and currently has three lines that carry more than 650 000 people daily and the Metro (subway) with eleven lines and carrying an average of about 3, 917, 000 people a day.

However the capital (2006-2012), with its mayor Marcelo Ebrard Casaubon, decided to invest in a new transportation option, the bikes, which were already part of the mobility of many Mexicans, but were not considered vehicles, what was important to elevate the level of bicycle in the transport vehicle traffic regulations updating the city.

### **The starting point**

The government decided to implement the new transportation system in the Cuauhtemoc delegation, comprised 34 settlements among which: "La Condesa", Juarez, Roma, Doctores, Santa Maria la Ribera and the historic district of the city. This delegation has 500 thousand inhabitants and is daily receiving 5 million visitors and traffic from 800 thousand vehicles.

The starting point for the project was the area known as "La Condesa", an area that is part of the shaft to further develop the country and the city is sometimes compared with other areas of the world bohemian like Williamsburg in Brooklyn or Borne in Barcelona, is made up of three neighborhoods: Condesa, Hipodromo Condesa and Hipodromo.

La Condesa is an area of the early twentieth century that began with the transformation of a huge ranch to install the construction of sports entertainment elements of the time: a bull ring and the racecourse, then the latter was split to accommodate residential developments demanded by the growing city.

Currently part of the cultural corridor called Roma-Condesa, famous for its nightlife and cultural home mixed uses, multiple pieces of equipment and corporate offices as well as cafes, bookstores, theaters, restaurants and overall a great cultural diversity that make it an attractive area for residential investment and the bohemian public, with other neighborhoods like Polanco, Colonia Del Valle, Lomas de Chapultepec and Santa Fe are part of the axis of maximum development of the capital of Mexico.

### ***The system***

ECOBICI is the name for the system of bicycle hire initially installed in the area of "The Countess" in the capital, is to sign up for a membership for only \$ 22 so you can take a bike on the many stations area to be left in a station close to the desired destination.

The government spent \$ 6.5 million, beginning with Phase I of the system that started with 85 stations, 1,114 bicycles and changes in road infrastructure in the city. The program was so successful that a year after his installation in February 2011, came to 24 000 users and is currently in expansion.

System users make from 4.000 to 10.000 daily trips, depending on weather conditions and labor, but is considered an average of 7.000 trips per day with approximately 20 minutes and 8 km on each trip and a speed of 15 km / hr . This rate is many times higher than that of other transport systems in the city due to traffic conditions.

Before the installation of this system the bicycle was not consider as a transportation vehicle, so it was necessary to change the capital rules of the road, in February 17, 2010, the starting day in the city ECOBICI system were announced in broad terms the following changes:

Shall be deemed to cyclists as vehicles and are hierarchically above the cars, but below the pedestrian priority use of public space, on the other motorists are required to respect both the cyclists and their lanes and use caution when passing.

Cyclists in the new quality of transport vehicles are required to move in the direction of the streets, road signs and respect the traffic lights, park their vehicles in designated areas or spaces reserved for them.

It also gives preference to the bickers when crossing a street with no traffic lights, its required to use reflective strips at night but it is not compulsory to wear helmets, unlike other bicycle hire system in other cities, that is because they believe that the mandatory use of helmets was half that could reduce the number of users in this introductory phase of the project.

### ***Helping the planet and its people***

Importantly ECOBICI has been a plus for ecology if every user of the system represent the replacement of a car, it would mean a saving of 4,536 kg of CO2 per year per car and use 500 gallons of gasoline consumption.

In an hour of cycling you can burn up 600 calories and users lost an average 5.9 kg the first year of use, this is very important for the country as it ranks first in obesity worldwide and the major diseases of the population are chronic degenerative diseases such as diabetes.

### **The expansion**

Due to high demand and success of the program, two new phases are planned to expand the project, Phase II in the Historic Center and the Colonia Roma, both in the Cuauhtemoc area, with 110 stations and 1,700 bikes and an area of 9.2 km<sup>2</sup> in this phase is expected a record

of 29,000 daily trips and 11,000 users.

Phase III was installed in the Polanco area of the Miguel Hidalgo delegation, west of Cuauhtemoc area, with 75 stations, 1,060 bikes and 7.5 km<sup>2</sup> of service, in this phase are expected 20,000 users and an average of 7,500 daily trips. With the above have a total of 4,000 bicycles, 275 stations and more than 70 000 potential users, covering an area of 20.5 km<sup>2</sup>.

Also they're moving the system to other delegations to the south of the capital that are interested in joining the eco-mobility as the Coyoacán delegation, an area of great bohemian atmosphere.

The system has broken down barriers of perception and acceptance among the people because there has been a low rate of theft, much lower than expected, unlike other similar systems such as Bicing in Barcelona or France's Vélib which have registered some 3,000 stolen bicycles and his 20,000 bikes 80% have been replaced by bad conditions.

### ***A new era***

Another factor for the development of sustainable mobility in the capital is the interaction of different modes of transport, among which ECOBICI, users use it to get to mass transit and the Metrobus (BRT) and Metro (Subway), which have presented an expansion of 200% and 9% respectively, or to reach their destination after use so it is important the connection between all systems.

ECOBICI is just the beginning of a big city trend towards bicycles, every Sunday up to 22 thousand people flock to the city center for cycling and once a month, "CICLOTÓN" brings up to 65 000 cyclists, and it is driven the bike in the city with the creation of new bike lanes as Coyoacán Bikeway with an extension of 17 km and the Lieja-Cuernavaca-Reforma cycle path with 60 km, which exploited some railroad tracks.

With all of the above related to sustainable personal mobility, new ideas for bikes in the capital city had been generated, the main goal is to achieve a 5% of the total trips in the capital by bike with this goal the mobility in the city arrives to a new era with a future with cycle paths, laws and infrastructure just for bicycles.

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