# Bicycle Brazil – Brazilian Program for Mobility by Bicycle

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## I- Introduction

The Ministry of Cities was created in January 2003. One of its attributions is to establish national policy guidelines for public transportation and urban mobility through SeMob – National Secretary of Transportation and Urban Mobility. Within this context, SeMob developed and is implementing an urban mobility policy for the construction of a sustainable city that seeks the democratization of public space, giving effective priority to collective transportation and the development of non-motorized means of transportation, and promotes social inclusion. This policy also aims at reducing negative externalities of motorized transportation means, especially sound and air pollution, as well as reducing the number of traffic accident victims.

As part of this policy, in September 2004, the Ministry of Cities launched the Brazilian Program for Mobility by Bicycle with the objective of stimulating and supporting municipal and state governments to develop and improve actions that favor the use of the bicycle as a means of transportation, with greater safety. In this study, we introduce the Program's characteristics and its implementation.

## II – Urban Mobility Policy for a sustainable city

Brazil has 5561 townships that have great diversity considering aspects such as budget, topography, population and participation of the different means of transportation in the urban transportation matrix. With regard to population, the country has 437 townships with more than 60 thousand inhabitants, 239 with more than 100 thousand, 34 with more than 500 thousand and 14 with more than 1 million inhabitants. According to the National Information System on Transportation and Traffic, the total number of urban trips reveals the following participation of the different transportation means: 35% of all daily trips are on foot, 32% by collective transportation, 28% by automobile, 3% by bicycle and 2% by motorcycle.

The problems people face to move about on a daily basis, especially in large urban centers, normally has a fragmented analysis, where the problems of the public transportation system are disassociated from the circulation of private vehicles and

the land use , and in most cases, non-motorized means of transportation, such as walking or bicycles are not considered.

The reality, especially in large urban centers, is the cyclical degradation of public transportation services, increased travel time, increased pollution, higher tariff levels and traffic jams. In reality, the problem does not arise merely from technical deficiencies or the poorly adjusted supply of transportation. It arises from an urbanization process that leads to the fragmentation of urban space, separating ever more distant residential districts from work and leisure areas, pushing the neediest population further to the periphery of large urban centers. This occupation generates urban emptiness and the constructed structure for automobile circulation or even for collective transportation generates physically and economically degraded areas.

The focus of the solution to transportation problems cannot be limited to its continuous expansion, which represents economic, social and ecological costs. Nor can cities continuously expand, providing infrastructure for mobility based on the automobile. The solution cannot be based merely on the current production model of more and more transportation. Financial resources required to maintain this model of transportation development compromise municipal budgets. This has already proven to be infeasible.

Most of the resources in city budgets are destined to improve the conditions for private automobile circulation, and many times there are no investments in improving collective transportation or in developing non-motorized means of transportation. Besides that, resources for investment in infrastructure are limited and they do not accompany the evolution of the demand generated by the current model of occupation in these cities.

The mobility policy for the construction of a sustainable city must observe some principles that contribute effectively towards reducing the generation of motorized trips and enabling the use of non-motorized means of transportation, especially for short trips to access essential services.

A city can be considered organized, efficient and prepared to serve its citizens when the people are able to live near their workplace and access essential services without the need for motorized transportation, making short trips on foot or by bicycle; or access them using collective means of transportation.

The formation and consolidation of urban sub-centers, or multicentricity, result in the reduction of motorized trips. Of course, it is not possible to rebuild a city, but when social equipment is better positioned, when public services are computerized and decentralized, occupying urban emptiness, the factors that generate trips are truly modified. Therefore, it is about not generating the need for motorized transportation on the part of the population.

## III- The Brazilian Program for Mobility by Bicycle – Bicycle Brazil

The challenge for the Ministry of Cities is to expand the reigning vision of circulation problems in order to incorporate economic and social dimensions that are normally not considered. This is about recognizing the existence of a mobility crisis, especially in large urban centers, which encompasses public transportation and traffic issues, demanding solutions that go beyond a fragmented analysis. Accessibility is seen as part of an urban mobility policy that should promote social inclusion, equal opportunities and citizenship.

When analyzing the reality of Brazilian cities, it is possible to detect the growing use of the bicycle as a means of transportation for work and study, as well as for leisure activities, regardless of topographic characteristics that favor its use. In cities that have mid to high capacity transportation systems, especially on rails, it is possible to observe the occurrence of intermodal integration, albeit in an embryonic and even spontaneous stage, without collective transportation concessionaires or operators offering any kind of support infrastructure.

This reality demands that the role the bicycle plays in urban transportation for thousands of people receive appropriate treatment and it requires a public policy that is implemented in a cooperative manner by the three levels of government in Brazil – municipal, state and federal.

In September 2004, the Ministry of Cities launched the Brazilian Program for Mobility by Bicycle – Bicycle Brazil. In developing the Program, SeMob seeks to encourage Municipal and State governments to develop and improve actions that favor the use of the bicycle as a means of transportation. The inclusion of the bicycle in urban transportation is addressed as an element for the implementation of an Urban Mobility concept for a sustainable city and as a means to reduce the cost of the population's mobility, especially the low-income population.

The Brazil Bicycle Program has the following objectives:

- Insert and expand bicycle transportation in the urban transportation matrix.
- Promote its integration with collective transportation systems aimed at reducing transportation costs, especially for the low-income population.
- Encourage municipal governments to implement bicycle routes and a set of actions that ensure rider safety in urban transportation.
- Disseminate the concept of sustainable urban mobility, stimulating the non-motorized means of transportation, inserting them in the urban design.

Projected measures:

- Train public managers in how to elaborate and implement bicycle route systems
- Integrate the bicycle in public equipment and transportation system planning.

- Encourage integration of measures from the three levels of government
- Make society aware the Program is being put into effect
- Encourage technological development
- Foment the implementation of infrastructure for using the bicycle

Implementation Instruments

- Publish informative and training material
- Hold national and international Courses and Seminars
- Issue norms and guidelines
- Carry out and promote research
- Implement databases
- Foment the implementation of Municipal Programs for Mobility by Bicycle
- Create new financing sources
- Announce good practices

For the implementation of this policy, it is important to consider the diversity of the townships with regard to size, public transportation system characteristics, technical capacity, budget and the organization of bicycle riders. The Program's main focus is the construction of the city, its public spaces for circulation and its public transportation services, considering the different possibilities for intermodal integration and internal accessibility to the districts.

During the city construction process, it is necessary to include a new vision that considers universal access to public space, respecting the different needs people have in society. The insertion of the bicycle in urban transportation must be considered as an element of the new urban design required to render support to Urban Mobility for a sustainable city.

## IV – Implementation of the Program

The Bicycle Brazil Program has a forum that accompanies activities comprised of non-governmental organizations, technicians, professors, bicycle activists and universities that periodically get together to plan and evaluate actions being developed. The launching of the Bicycle Brazil Program was held in Brasília, the nation's capital, with a bicycle route that included the participation of the Minister of State of Cities, as well as other authorities and several non-governmental organizations, as a means to make the community aware of the issue.

SeMob sought to provide the Program with its own budget, and 29 municipal projects have received support since it has been launched, including an specific project to promote the integration between cycle in train stations in Porto Alegre City. A special found of U$ 135, 000, 000, 00 was created to finance mobility infrastructure to the cities government, including bicycle routes. A national survey was also carried out to learn the extension of the routes being destined exclusively for bicycles in 169 townships. The result revealed the existence of approximately 1672 km of bicycle routes. This result is not very expressive for a country with the

aforementioned characteristics, however the demand for and implementation of new projects is growing.

A Bicycle Route Planning Manual is projected for publication in 2006. It contains orientations for municipal administration professionals to elaborate projects for the implementation of bicycle route infrastructure. This manual will also be used in training courses SeMob will offer in several cities in the next years.