## **Brazil** Accessible

## The Brazilian Urban Accessibility Program of the Ministry of Cities

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ABSTRACT: In the current work we present the actions and instruments forecasted in the "Brazil Accessible" Program launched by Ministry of Cities with the purpose of stimulating and supporting city and state governments to develop actions that ensure accessibility for people facing disabilities and mobility restrictions to access transport systems, urban equipment and to circulate in public areas

## 1- INTRODUCTION

The Ministry of Cities was created in January 2003, having as one of its main attributions the establishment of guidelines for the national policy on public transport and urban mobility, through SeMob – National Secretariat for Transport and Urban Mobility. In such a context, SeMob has developed and has been implementing the Brazilian Urban Accessibility Program – Accessible Brazil with the purpose of stimulating and supporting city and state governments to develop actions that ensure accessibility for people facing disabilities and mobility restrictions to access transport systems, urban equipment and to circulate in public areas

Brazil has gone through deep changes in regard to public policies dedicated to disabled people in the last ten years. There was an evolution in concepts and definitions, progresses in social organization and the need to respect disabled people's fundamental rights has won wide recognition, as a result of that organization. There was also the approval of Federal Laws 10.048/00 and 10.098/00 and their regulation, which occurred on December 02<sup>nd</sup> 2004 through Decree 5296, allowing for an extraordinary progress in the next ten years and great impact on urban mobility management.

# 2- THE EVOLUTION IN SERVICING DISABLED PEOPLE

In the recent history of services dedicated to disabled people three great periods may be identified, according to Sassaki (2004).

Social segregation (End of 19<sup>th</sup> century until the 1940's)

This period was characterized by the provision of shelter and social-medical assistance in large philanthropic institutions, which acted in a segregating and isolating manner, distant from local communities and with essentially charitable purposes. The sheltered person was taken away from society and received food and care from the institution, being permanently confined.

Rehabilitation and social integration (From the 1950's to the 1980's)

During this period, a new modality of rehabilitation service was established, also applied in large service centers, and combined with an aid-based and paternalist view. The disabled person should adapt to the standards set by every institution, which thus believed to be adjusting that person to live in a supposedly right and perfect society.

For the 1980's, Sassaki highlights three aspects. The first one is the promotion of public awareness and the divulging of information on problems, situations, needs, rights, duties and potentialities of disabled people, with the consequent development of social integration concepts.

The second aspect is the formation of disabled people's organizations, the elaboration and approval of specific laws, including also the adding of specific precepts into the Constitutions of all Latin-American countries. The third aspect involved the formulation of claims for decentralized services, through regional rehabilitation centers, rehabilitation projects ran by communities and/or basic

rehabilitation services in medical private and state hospital networks.

Social inclusion (From the 1990's to 21<sup>st</sup> century's start)

During this period, services were conceived as a mean to promote independent life and personal autonomy, in the family and communities contexts. Alternative resources have been developed for rehabilitation and objectives become individual, that is, the disabled person him/herself determines his/her objectives according to that person's right to choose and make decisions (empowerment). The assumption is that society shall be continuously built and molded with the participation of all citizens, with or without any handicap.

During the 1990's, still according to Sassaki, among should manv aspects, we mention of implementation projects and plans opportunities equalization, in order to consolidate the social inclusion ideal with the full participation of disabled people in every aspect of community life. Claims arise for the compliance with the applicable legislation and there are progresses in the Implementation of claims conceived in the 1980's. In regard to rehabilitation, there is an adaptation of conquests in science and technology

## 3- ACCESSIBILITY IN THE PUBLIC TRANSPORTATION SYSTEM

The process of organizing social movements undertaken in Brazil in the turn of the 1970's to the 1980's, contributed to the recognition and inclusion of demands presented by disabled people into public policies both at the formulation and at the implementation levels and in the three levels of government, overcoming the concepts that involved simple specialized medical services, rehabilitation or social assistance.

As of the 1990's, the need for the elaboration and implementation of public policies has become more evident and projects for the implementation of specific public transportation services dedicated to disabled people have started to stand out, especially for wheelchairs users. A discussion on the offer of such exclusive services and on the ways to promote universal access to public transportation systems has been held, to cope with the image of segregation that exclusive servicing could give rise to.

The physical disability was used by the majority of people to identify all kinds of disabilities and the adaptation of transport systems focused on wheelchair users' accessibility issues, by elevators, to the many kinds of vehicles used in Brazil.

This vision hindered the adoption of more adequate approaches to the subject, a vision that ignored, many times, the whole range of disabled people found in society and the different needs they have in understand information, to use of different kinds of vehicles and to conclude their travels. Cancella (1994) listed the basic abilities that people need to have to use the different means of transportation, contributing to establish inabilities and the types of solutions deemed necessary.

- Locomotion Abilities: to get to the vehicle, to get in and to get out of it.
- Sensorial Abilities (Vision or Hearing): to perceive information.
- Physical Abilities: to move and to remain in the vehicle, standing or seated.
- Mental or Cultural Abilities: to discern information regarding any mean of transportation and the urban environment in general.

There was also the introduction of the concept of the Transportation Network for Disabled People (Boareto 1995), through the implementation of specific services and solutions for all kinds of disabled people, according to the concept of a services network comprising all available means of transportation.

People with mobility restrictions and disabled people

It is easy to realize that due to age, health condition, height and other conditions, people have special needs in terms of their ability of receiving information, getting to station or bus stops, entering vehicles and to conclude their travel. These are the people we call "People with Mobility Restrictions", that in the current work, we may call by the abbreviation "PMR". This group includes "Disabled People" who, in the current work, may be referred to under the abbreviation of "DP".

The Brazilian national census undertaken by IBGE (2000) showed that 14, 5% of the Brazilian population has some type of disability, amounting to approximately 26.5 million people. It is important to note that these numbers refer to the total range of disability, without taking into consideration those people with mobility restrictions, as defined above.

In 2000, Brazil had 8, 5% of elders, amounting to 14 million people and 1 elderly person in 26, 5% of homes. This population increased two and a half times faster than the young population, between 1991 and 2000 and 75% of elderly people are considered to be poor (Minayo 2004). Estimates indicate that in 2025, 15% of the Brazilian population will be above the age of 60.

Disabled people may be divided into five large groups, which are physical, mental, sensorial, organic and multiple disability. The sensorial disability group includes low vision and blind, hearing and speaking problems and the multiple disabilities group includes people with two or more kinds of disabilities associated.

## 4- BRAZIL ACCESSIBLE - THE BRAZILIAN URBAN ACCESSIBILITY PROGRAM

The Ministry of Cities has faced the challenge of widening the predominant view on circulation problems, in order to incorporate social and economic dimensions that usually are not taken into consideration. The purpose is that all of us should acknowledge that there is a crisis involving public transportation and traffic issues, which require solutions that surpass their current fragmented analysis. Accessibility is seen as part of a set of urban mobility policies that may promote social inclusion, the equalization of opportunities and the exercise of citizenship by all disabled and elderly people, in due respect to their fundamental rights.

In the preliminary information survey for the elaboration of the Program, we noticed the huge efforts undertaken by many Brazilian cities to elaborate local legislations, manuals and reference terms that might guide the many involved sectors in construction executed in their cities.

In 2003 we started formatting the Brazilian Urban Accessibility Program. SeMob held on December 16<sup>th</sup>, at the Ministry of Cities headquarters, a meeting to present the Program's proposals, which were discussed with social movements, NGOs, Universities, professional unions, public transportation operators, transportation equipment manufacturers, city and state transportation secretaries and remaining segments involved with the matter. It was in reality a Forum on

Accessibility, comprising all actors interested in contributing to the development and implementation of the "Brazil Accessible" Program.

After the elaboration of the initial proposal, SeMob held four regional plenary sessions in the cities of Porto Alegre, Sao Paulo, Rio de Janeiro and Recife. SeMob presented also the challenges that all three levels of government (local, state and federal) shall consider so that the country may effectively adopt a public policy on Mobility for PMR and HP people, with the aim of

- Ensuring accessibility
- Equalizing opportunities
- Ensuring the exercise of fundamental rights
- Contributing to the irreversible process of social inclusion
- Stimulating the organization of HPs
- Applying/improving the existing applicable legislation
- Making communities sensible and aware of the matter
- Developing partnership projects
- Elaborating local public policies
- Adapting Environments / eliminating barriers
- Implementing accessible transportation systems
- Developing technologies

"Brazil Accessible" aims at overcoming a huge challenge that the majority of state and city administrations must face in higher or lower degrees, concerning the implementation of a Brazilian legislation and accessibility norms, starting with the elaboration of a plan containing coordinated actions that might lead to the effective application of proposed policies. The Program's approach deals with the execution of construction works in cities, their public circulation spaces and transportation public services, and taking into consideration the use in all projects of a Universal Design concept.

The Program has been designed with the purpose of stimulating and supporting city and state governments in the development of actions that ensure accessibility into transportation systems, urban equipment and public circulation areas to all those who carry mobility restrictions and

disabilities, according to the Urban Sustained Mobility concept, as developed by SeMob. It deals with the inclusion, in cities' planning processes, of a new vision that takes universal access to public spaces into consideration, in respect the different needs that people have to live in society.

For the implementation of such a policy it is important to consider the diversity of cities involved, in regard to their size, public transportation system characteristics, rate of disabled population, level of knowledge, technical capacity, budget and the local organization of disabled groups.

Starting from the diffusion of the knowledge already available in Brazil, we present to city administrators a first requirement for the success of an accessibility policy, which is halting the creation of new barriers following the execution of public projects in cities. This principle is as important as the adaptation of public spaces to ensure the circulation of people with mobility restrictions and disabilities through the elimination of existing barriers. By ensuring mobility to disabled people throughout the city, local administrations shall also work to ensure access to public buildings, to commercial outlets and into leisure services and areas.

States and cities are invited to adhere to the Program, through the elaboration of a City or State Program for Accessibility, with support from the Ministry of Cities, through the implementation instruments offered by Accessible Brazil. The Program shall contain its own budgetary heading, well-established phases of work, goals to be reached and evaluation indicators.

Initially, three phases of work have been forecasted that will be implemented after the formal adhesion of each city. In the first phase, the Ministry of Cities, together with its national partners, offers the instruments for the qualification of personnel and for the elaboration of um diagnostic on local legislation and on accessibility conditions for elderly and disabled people, encompassing essential public services and public areas of circulation.

In the second phase, cities shall elaborate a mobility plan, comprising changes in cities' legislations deemed necessary to avoid the construction of new architectural barriers, emergency interventions, as well as actions to be taken in the mid and long terms. In the third phase, involved parties shall elaborate executive projects and execute all interventions proposed in the mobility plan.

This Program complies with guidelines approved by the National Cities Conference and another important factor for the implementation of a notional policy on accessibility is the social control exercised especially by disabled people's entities. Brazil currently has 78 city councils and 12 state councils formed to defend the rights of disabled people. 11 city councils and 3 state councils are being established.

### Forecasted Actions

- 1 Personnel Qualification
- 2 Adaptation of transport systems
- 3 Elimination of architectonic barriers
- 4 Diffusion of the universal design concept in transport systems and public equipment planning.
- 5 Incentive to the integration of Government actions
- 6 Sensitizing society in regard to the issue.
- 7 Incentive to social organization
- 8 Incentive to technological development

### Instruments

- 1 Publishing of information and qualification materials
- 2 Realization of national and international Courses and Seminars
- 3 Edition of norms and guidelines
- 4 Realization and stimulation of researches
- 5 Implementation of a data bank
- 6 Incentive to the implementation City Programs for Mobility
- 7 Creation of new financing sources
- 8 Promotion of Good Policies

## 5- IMPLEMENTATION OF ACCESSIBLE BRAZIL

For the development of the Program we are undertaking periodical meetings of the Accessibility Forum to detail forecasted actions and instruments. Since the Ministry of Cities launched the Program, the fowling actions had been developed:

5.1- National Research on the accessible transportation system

SeMob undertook in 2004 a research for the quantification and characterization of public transportation services for DP available in Brazil.

The research involved 437 cities with population larger than 60 thousand inhabitants, in the universe of 5561 Brazilian cities.

#### General data

Among a total of 437 researched cities, 218 replied with answers to research questions, representing a return rate of 49,88%. Among these, 26.61% (58) will have to elaborate their respective Master Plans until the month of October 2006, offering them an opportunity to work on this subject. These 218 cities have a public transportation fleets amounting to 48,222 buses, approximately 50% of the urban bus fleet in operation in Brazil, which totals approximately 95 thousand vehicles

50 cities offer adapted buses with elevators, 40 offer level access to wheelchair users. We found that 50 cities offer a "Door-to-Door" type service. For this service, most used vehicles are "vans", equipped with elevators and many cities offer the three types of transportation. 963 vehicles have elevators for wheelchair users access and 1228 vehicles allow that wheelchair users embark on level with platforms, amounting to 2191 accessible vehicles

## Door-to-door service

Most used vehicles are Vans, Microbuses and buses. 38 cities operate a total of 431 Vans, 13 cities operate a total of 53 Microbuses and another 9 cities operate a total of 17 buses. The supplied demand amounts to 6,989 people and the repressed demand, in a total of 29 cities that have answered to that question, amounts to 4,137 people. 14 cities have informed on the existence of "other modalities of servicing" connected to physiotherapy, rehabilitation and school transportation.

## Elimination of Architectonic Barriers

Among 218 researched cities, 193 (88.53%) informed the implementation of curb lowering in public ways that are mainly located in the downtown areas of these cities. 34 cities have taken the initiative to implement sound-signal traffic lights and the research shows also that 146 out of the 218 cities that have answered the research have urban bus terminals and almost all of them need to be adapted to better service disabled people.

This has been the largest research ever made on accessibility of disabled people into public mass transit systems in the country and we have found that there is an increase in the last years in the number of cities that have applied some type of service dedicated to disabled people.

Despite all efforts undertaken by social popular movements and by entities that fight for the rights of disabled people, only approximately 5% of the bus fleet in operation (2191) allows for the access of wheelchair users and what stands out is the repressed demand for door-to-door services, which would require larger investments in order to make such service universal. Results obtained from this research have contributed to explain the purposes established in Decree # 5296/04 of December 02<sup>nd</sup> 2005, which has regulated Federal Laws # 10.048/00 and 10.098/00

### 5.2- Publications and courses

SeMob has already published the first Accessible Brazil Booklet, called "Adequate servicing to disabled people", gathering guidelines to improve services offered and executed by the professionals who work in the operation of transit services. This publication received the collaboration of many cities and professionals that made materials on the issue available, and there was also a process of public consultations in which any interested person could present claims and offer suggestions. Based on that publication, CNT- Brazilian National Transports Confederation, a national partner for qualification initiative, through SENAT – National Service for Transports Qualification – have elaborated a course called "Transport for All" which was released on June 2005.

It is also forecasted the publication of Booklet 2 "Building an accessible city", with information for engineers and architects on the application of the universal design concept and Brazilian norms in new building and public spaces projects. Booklet 3 will deal with the Decree 5296/04, booklet 4 will deal with the implementation of municipal accessibility policies, and booklet 5 will offer guidance for the implementation of accessible transit systems and booklet 6 will gather good experiments adopted by Brazilian cities. Booklet 2 will be the basic material for the professional qualification course that will be offered for cities administration's engineers and architects.

## 5.3- Workshop on accessible transit

As an integral part of the research on Brazilian experiments in the development of policies for disabled people, we held in December 2004, in Brasilia, a workshop to exchange experiences adopted in cities like Belo Horizonte, Campinas, Guarulhos, Rio de Janeiro, Sao Paulo, Uberlândia and Vitória. The Ministry of Cities will promote this kind of meeting every year.

## 6- DECREE 5298/04 - THE REGULATION OF LAWS 10.048/00 AND 10.098/00

The Ministry of Cities has worked to enforce the regulation of Federal Law 10.048 of 11/08/2000 which "gives priority to the servicing of people it specifies and establishes other measures "and Law 10.098 of 12/19/2000 which "establishes general norms and basic criteria for the promotion of accessibility to people with handicaps or with impaired mobility and establishes other measures". No doubt that these laws represent a fundamental progress in the elaboration of public policies for disabled peoples in the three levels of government and the fact that these laws required four years to be regulated shows how complex are all aspects involved in their implementation.

Decree 5296/04, in regard to public transit, has managed to reflect the advances adopted in the sector. That Decree has established that an accessible transit policy shall deal with all elements that comprise a transit system, identified as infrastructure, operational personnel, vehicles and roads. It also need to take into consideration the onlevel embarking of passengers, or through ramps that allow for embarking and disembarking autonomy in at least one of the vehicle's access doors, a requirement necessary to ensure accessibility to wheelchair users. Besides, projects shall also comply with the needs of people who carry a wide range of diverse disabilities.

In regard to vehicles, accessibility is implemented from the incorporation of new accessible vehicles into systems' fleets. The fleet currently in operation can be adapted, to receive improvements for the circulation of passengers, changes in the disposition of seats and balusters, according to a norm to be established by INMETRO, the Brazilian organ for standardization.

It has been established the term of 12 months for the elaboration of a technical norm, to establish that all vehicles made in Brazil, after a forecasted term of 36 months, shall ensure embarkation of wheelchair users. Thus, different kinds of vehicles will be used according to the needs of every state and city that are responsible for planning, implementing and managing public transit systems, which shall be fully accessible after the maximum term of ten years.

New medium and high capacity systems, using articulated and bi-articulated vehicles, receiving a specific road treatment, such as the implementation of exclusive traffic corridors, will be implanted to ensure on level embarking, with full accessibility infrastructure, according to the guideline already adopted by the Ministry of Cities in its financing programs.

In the first three years after the Decree has been signed, actions will also be undertaken to promote the improvement of general accessibility conditions in the operational fleet, the implementation of specific accessible transit services; accessibility, the use of technical support operations; operational and servicing personnel qualification, and the elaboration of executive projects and the realization infrastructure adaptation works. As an example of that demand, we can mention that urban public mass transit systems have approximately 250 transfer terminals, and almost all of them need adaptation works to comply with the applicable legislation. On-rail mass transit systems present the most diverse situation, since some centenary railway stations require non-conventional adaptations and expensive solutions.

For on-rail means of transit, the accessibility approach considers separately the proposed solutions for access to stations, embarking platform and access to trains and finally, the adaptation of trains' interior areas, which require different terms for implementation. It has been established a term of 6 months so that personnel responsible for the operation of such systems present a plan of action, wherever such a plan has not been devised yet, so that it becomes public commitment, through its approval by stockholders' assembly, or by any other such body. This plan shall establish the interventions deemed necessary also to make all systems fully accessible in the maximum term of 10 years. The plan shall forecast the minimum

goal of 8% per annum of adaptations on the still not accessible infrastructure, a term in accordance with the budgetary reality of all levels of government responsible for these systems.

The planning, construction and operation of water and road transit systems shall also ensure their use by disabled people. It has been established a term of 24 months for the elaboration of manufacturing technical norms and a term of 36 months for the adaptation of boats. For the implementation of adaptations the term is of 54 months and for the manufacturing the term is of 24 months after the elaboration of the respective norm.

The term for the adaptation of municipal legislations has been set to be compatible with that established by the City Charter, a Federal law about the cities. According to the Charter, all cities with populations larger than 20 thousand inhabitants shall elaborate their Master Plan, or adapt it, till 2006. Cities with more than 500 thousand inhabitants shall also elaborate a Transit and Traffic Plan. The Ministry of Cities has already elaborated a book called "Participative Master Plan- Guide for its elaboration by cities and citizens", which contains guidelines and principles so that city administrations may elaborate their Master Plans and a reference term is under preparation to subsidize the elaboration of "Urban Mobility Plans", the new name for our transit and transit plans. The National Secretariat for Urban Programs will develop these actions, together with SeMob, throughout the years 2005 and 2006.

### 7 - CONCLUSION

The Brazil Accessible and the Decree 5296/04 have established the opportunities and conditions for the development of a national policy, considering and respecting the attributions of the three different levels of Brazilian government (city, state and national), the reality and diversity of cities and states, the reality of vehicles and transit equipment industries and the reality of public transit operators, all which influence deadlines of necessary actions to ensure mobility to disabled people.

It is important also to note the commitment demonstrated by all actors comprising the public transit sector in Brazil with the elaboration of a proposal for the regulation of Laws 10.048/00 and 10.098/00 that effectively lead to the implementation of accessibility measures for all persons in public areas of circulation and in public transit systems. The terms established by Decree 5296/04 represent great progress for a country with the characteristics of Brazil

The National Secretariat for Transit and Urban Mobility, through the "Accessible Brazil" Program and through its sustainable urban mobility policy, shall contribute to the effort of having all cities incorporating into their urban development plans the ideal of mobility for disabled and elderly people as components of a new concept in city planning, one that respects all persons no matter what means of transit they use, to make cities a more pleasant place to live.

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