



Access Exchange International

Making Access Happen

– A guide for advocates and planners –

HOW TO PROMOTE AND PLAN ACCESS
for DISABLED PERSONS *and* ELDERS
to BUSES, TRAINS, TAXIS
and OTHER MODES OF TRANSPORT



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This guide is a follow-up to *Mobility for All: Accessible Transportation Around the World*

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INTRODUCTION

The purpose of this guide is to assist people and agencies around the world to work together to design public transport which is usable by passengers with disabilities.

- “Passengers with disabilities” include persons with a *mobility* impairment – such as those who use wheelchairs, crutches, canes, and walkers – or who have a hidden disability such as arthritis. Other passengers with disabilities may have *sensory* impairments (such as those who are blind or partially sighted; or persons who are deaf, deafened, or hard-of-hearing), or a *cognitive* impairment.

- “Public transportation” includes transport by bus, van, rail, taxis and smaller vehicles, as well as marine or air transportation used in urban or rural areas or between cities and countries. Such transportation is “inclusive” when it is designed and operated in such a way that people of different ages, gender, size, and ability can all use the system. (Note: “transport” and “transportation” are used interchangeably in this guide although in many countries one or the other term is more commonly used.)

- People and agencies must work together to create inclusive transportation. These different “stakeholders” promote and plan access to transport. They make access happen. These persons or agencies include those with disabilities, all other passengers who benefit from inclusive design, bus companies and transit agencies of every kind, bus and van drivers and fare takers, rail personnel, and public officials in transport or public works or planning ministries. Many other persons and agencies are involved and need to take steps to make public transportation more usable by everyone.

We feel the contents of this guide will benefit all stakeholders. Advocates need to learn more about the planning process, and planners and transport officials need to learn more about how they can join in promoting access for all.

Countries vary considerably in terms of wealth, geography, climate, road systems, and sizes and types of transport vehicles. Likewise, the structure of public transport systems and their regu-

lation differ from one country to another, causing wide variation in mobility, comfort, and safety. While a guide such as this can provide a helpful introduction, each country has a different situation. If some parts of this guide do not apply to your situation, we hope other parts will.

This guide presents many ideas for promoting and planning accessible transport. Remember, however, that different stakeholders have different tasks. The ideas in this guide are not meant to be carried out all at once, nor by the same people. Teamwork is required. Citizens, planners, and transport managers must work together. It is important not to become discouraged by the different steps in promoting and planning access for all, but rather to move ahead one step at a time.

This guide is merely an introduction. For more information about each topic, go to the Resources Section at the rear at pages 26-29. This section will lead you to in-depth resources to help you “make access happen” in your country.

Access Exchange International (AEI) is a non-governmental organization (NGO), also known as a “non-profit agency” in the USA. AEI is based in San Francisco, California, and has more than twelve years of experience in promoting accessible transportation around the world, with a special emphasis on regions that have more recently begun to take initial steps toward access in their public transport systems. Thus our focus is on Asia, Latin America, eastern Europe, and Africa rather than those countries in western Europe and North America which already have increasingly accessible public transport systems.

The author of this guide is Tom Rickert, the Executive Director of AEI. Prior to founding AEI, the author was Manager of Accessible Services for San Francisco’s public transportation agency. Photos not credited are by the author.

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Weiner (USA). Special thanks to Nicolas Finck for assistance in editing and design of this publication. All opinions and any errors are the responsibility of the author. This guide follows up our earlier guide, Mobility for All: Accessible Transportation Around the World, which introduces the technical and operational aspects of accessible transportation. See the contact information in our Resources section for information on obtaining copies of our guides.

WHO BENEFITS FROM ACCESSIBLE TRANSPORT?

In recent years, there has been growing interest around the world in accessible transportation. There are many reasons for this global trend, but perhaps the most important is that the various design elements and operating procedures which benefit disabled persons also tend to benefit everyone else.

- When separate street lanes with dividers are created for pedestrians, bicyclists, and motorized vehicles, each mode is safer to use. This benefits everyone, but especially assists pedestrians with disabilities.



Lanes for motorized and non-motorized traffic in Foshan, China, enhance safety for everyone.

- When a van or taxi operator brings the vehicle to a complete stop and waits while a passenger with a cane climbs on board and finds a seat, the driver has made it possible for that person to ride. But all other passengers also benefit from safe, courteous treatment by their drivers.
- When a bus driver announces the most important stops to the passengers, a blind person may especially benefit, but everyone is given important information.
- When a wheelchair user rolls onto a bus at floor



Boarding a bus rapid transit (BRT) line in Curitiba, Brazil

Photo by Charles Wright, IDB

level, he or she is able to ride even when unable to climb steps. But every passenger gets on faster by not having to climb steps.

- Painting handrails a bright yellow on a bus or train especially benefits a passenger who is partially sighted, but it also benefits every passenger who wants to quickly find a way to hold on while entering.
- Well-located signs may be especially helpful in directing a deaf person to a bus or train in a transit terminal, but these signs may be equally important to tourists or anyone else who is not yet familiar with that terminal.

In other words, everyone benefits. Sometimes the benefit comes from an *operating procedure*: bringing a bus to a safe stop at a bus stop, or calling out important stops. Sometimes the benefit comes from an *inclusive design feature*: painting hand grips in a bright contrasting color, providing level boarding to buses, or installing good signs with large print at convenient locations.

PROMOTING ACCESSIBLE TRANSPORT

Accessible transportation is more than a matter of making a few changes in the design of transport vehicles. **To be truly accessible, public transport must also be safe, reliable, and affordable for those who need to use that transport.** In turn, physical accessibility, safety, reliability, and affordability depend on other factors. For example, they depend on local political decisions, such as policies which favor public transit over the private car or which determine bus service levels and fare policies. The physical environment is another factor, including matters such as traffic density, congestion, and geography. And the management of transport agencies determines a great deal as it provides (or fails to provide) good leadership and training for its employees and helps determine the design and quality of the service.

All of these factors provide the broader context within which the provision of inclusive design and accessibility features must occur. “Mobility for all” is thus a concept which can grip the public imagination as governments and transport operators strive to improve transportation for all their citizens, not just those with disabilities.

For example, how a transport system is *operated* is every bit as important as how vehicles are *designed*. In order to take advantage of access features such as low floors or hand holds painted in a bright contrasting color, it is necessary that buses be safely driven and that they safely stop at bus stops while passengers board and alight. Accessible design features will not be much help if passengers are first required to jump on board a moving vehicle or cross lanes of moving traffic in order to board! Safely operated buses are not only more accessible, they also result in far fewer accidents and injuries and significant-



REDI: A coalition of advocates in Buenos Aires

ly decrease the number of persons who become disabled due to traffic accidents.

Safe, reliable, and affordable public transport increases access for most disabled passengers while making it easier for women, children, and older people to use such transport. For this reason, non-governmental agencies (NGOs) serving persons with disabilities need to work with other stakeholders, including NGOs serving low-income persons, women, or children in need of transportation to school. They also need to work with advocates of non-motorized transportation (such as safe walking or bicycling) in order to get safe and accessible pathways from home to bus stop.

And disability NGOs need to work with advocates of “sustainable transport” who emphasize putting public transport ahead of highway construction for wealthier people with private cars. In many countries, public transport systems are actually decreasing in size as resources are poured into highway construction. Traffic may become ever more congested and slow down (along with all other transport), while poor persons – including disabled poor persons – are forced to move farther and farther out from city centers and commute longer and longer distances to their employment.

Effective Promotion

When?

While there is never a poor time to promote access for all, some occasions are especially appropriate for consideration of inclusive design for public transportation systems or for accessible pedestrian pathways (sidewalks, curb ramps at intersections, etc.). Here is a partial list:

- Upon the passage of legislation or regulations at national, state/provincial, or municipal levels which require or at least promote the inclusion of persons with disabilities as passengers of public transit systems.
- When increased regulation of transport is needed. In many countries, a lack of regulation means that bus drivers paid directly from passengers' fares have an incentive to operate their vehicles in an unsafe manner. Addressing the need for safety for disabled passengers provides an opportunity to address the larger issue of better regulation of transport for all passengers.
- When the construction of new facilities is proposed. Planning policy should ask of any plan or project: Does it incorporate adequate, safe, and accessible sidewalks or other pedestrian paths? Does it make public transport a desirable alternative to the private auto? Does it promote the use of non-motorized transport modes, such as walking or bicycles? Will the proposed facilities be accessible?

Such projects may include:

a) Government projects such as rail systems, roads or highways which should include accessible pedestrian pathways and transit stops or terminals. The construction of new or rebuilt sidewalks and pedestrian crossings, or reconstruction of city streets to slow down dangerously speeding vehicles, provide other examples.

b) Commercial construction such as new stores or housing developments. Older or disabled customers may be unable to shop unless facilities are accessible.



Inaccessible railroad overpass

Photo by Richard Weiner

c) Projects funded by major development banks or international agencies such as the World Bank, the Inter-American Development Bank, or the Asian Development Bank. These include many infrastructure and transport system projects.

For example, the Inter-American Development Bank helped fund Curitiba, Brazil's, highly accessible express bus system (since replicated in Quito, Ecuador, and Bogotá, Colombia). The IDB has loaned US\$120 million to São Paulo State in Brazil for projects including the construction or retrofitting of 80 bus terminals with accessible features. And the World Bank has begun to recognize issues of disability in its urban transport policies.

- When it is time to replace or expand fleets of buses, rail cars, taxis, jitneys, vans, motor-rickshaws or other vehicles. Proposals for newer vehicles may be due to aging vehicles, a need to reduce pollution and congestion, or a need to upgrade public transport in order to reduce dependency on automobiles.
- When transit systems identify a need for greater efficiency, for example by decreasing the time it takes for passengers to board by acquiring low-floor buses without steps.
- When governments make a decision to increase tourism by enabling more older or disabled persons to visit a country and its tourist attractions. A special case is that of venues for the Olympic and Paralympic games, which are required to be

accessible to participants and spectators.

- When building codes are initiated or revised. This is an ideal time to include access features for pedestrian infrastructure, as it costs little or nothing to make new construction accessible.
- When government or private social service agencies recognize the need to reduce the costs of bringing services to persons who cannot leave their homes, or the costs of maintaining disabled persons in institutions when they could in fact be productively employed if they had access to transportation.



Welder at job site in Mexico

Effective Promotion

Who?

Effective promotion reaches out to include many different stakeholders.

Advocacy needs to unite persons with different disabilities. For example, people who are semi-ambulatory need to work with those using wheelchairs, with blind persons and deaf persons, and with others who have hidden or cognitive disabilities. By working across disability lines,

NGOs become more effective in their advocacy. Cross-disability advocacy assists transit officials to understand the different needs of their disabled passengers without conflicting messages which can confuse transit planners and may result in nothing being done.

It is not uncommon for different NGOs in a given country to have similar goals but different approaches to advocating these goals. Such differences need to be respected as long as all concerned are seeking clearly defined and measurable improvements, in this case in access to transport.

And advocacy needs to unite persons with disabilities with other stakeholders. These stakeholders may include *older persons* as well as *mothers with children* who may not consider themselves disabled, but who cannot use transportation without many of the same design and operational features which make it accessible to passengers with disabilities. *Public health advocates* and *rehabilitation agencies* should also be natural allies.

NGOs concerned with social equity and civil rights may also wish to make common cause in seeking safe, accessible public transport for all passengers. Disability agencies can work with these agencies to address poverty in less-wealthy countries. Barriers to travel by disabled persons have been documented as a major cause of poverty, and this is a big reason why disability and poverty are so closely correlated around the world.

An example from Buenos Aires: Advocates with disabilities are working with poor people to promote humane systems of travel to address the overcrowding which makes public transit less accessible for the majority of potential passengers.

Issues of social equity are often of great importance to *faith-based organizations*, which also have a stake in the ability of disabled persons, women, children, and the poor to reach houses of worship and the activities of the different religions in every country.

An example from Sierra Leone: Sara Barreri belongs to a Methodist church which lacked a ramp to enable her to enter in her wheelchair. She advocated with church authorities for funds for building materials and then church members built the ramp with their volunteer labor. Thanks to her determination, other disabled persons can now join her in entering this house of worship.

Agencies serving tourists – many of whom may be older persons – may also become allies of disability NGOs.

Other stakeholders could include *advocates of sustainable transport* who seek higher quality public transport, safe bicycle paths and pedestrian walkways. These advocates of livable cities encourage methods of “traffic calming” to provide for safer, more humane environments. They also promote public transport as an alternative to the congestion and pollution caused by excessive reliance on the private automobile. (See the case study from Malaysia on page 10 and contacts in the Resources section.) These advocates have successfully encouraged the World Bank to place more emphasis on well-designed pedestrian pathways. Persons with disabilities will benefit from such policies.

An example from the state of Colorado in the USA: In 2002, when disabled advocates in the Colorado Mobility Coalition (CMC) joined forces with other advocates, the state legislature approved state funding for public trans-

portation for the first time ever. In the past, state funding was only used for roads and bridges. The CMC worked with environmental advocates, the business community, public health agencies, transport agencies and other interest groups. One result: It is expected that funds will be designated for more public transit in rural areas, using accessible vehicles.

Source: Margi Ness, *Colorado Quarterly*

Finally, disability advocates should be on the lookout for *newly created neighborhood organizations*, often formed in response to the many critical issues affecting poor people and other communities who may be increasingly at risk in societies undergoing rapid social and economic change. People need to work together to address issues of common concern. Throughout the world, public transport is one such issue.

Effective Promotion

How?

Effective methods of promotion vary for different stakeholders, and may vary somewhat from one culture to another. Let us begin with advocacy by organizations by and for persons with disabilities and then follow with actions which can be taken by other stakeholders as well.

Grass-roots advocacy by disability NGOs

In most cases, a vital component of effective promotion is “grass roots” advocacy by NGOs and similar advocacy groups representing persons with disabilities and their friends. Such agencies may be formal non-governmental organizations (for example, incorporated or recognized under various laws) or they may be less-formal advocacy groups, perhaps created for the specific purpose of promoting accessible transport or seeking access features for a specific transport project.

Here are some methods that have worked around the world for NGOs and other community organizations who wish to promote access to transportation.



An outdoor “Internet Café” in Tokyo

Photo by Walter Spillum

- ***Make a list of the different individuals and agencies which may support the cause of inclusive public transport.*** This list could be in the form of a computer database or a card file. Identify the agencies, the contact people, and contact information for these potential allies. Consider the size of the agencies in making your list, as well as their ability to reach out to a large number of people. Also consider their previous successes in advocating in favor of their members. Tip: Enter key words in an Internet search engine such as “Google” when looking for potential allies, such as (if you are using English) “health agencies” or “senior citizen groups.”

- ***Plan to hold meetings.*** Always have an agenda and focus on the important items. Start the meeting on time. Never go for more than two hours, less if possible. Make the minutes brief. Give people tasks to perform. Have one item which requires creativity or fun. Have a firm chairperson. Make time for social contact at the end of the meeting. Avoid bureaucracy.

- ***Develop a clear strategy.*** Aim for measurable short-term and longer-term goals. While longer-term goals focus on system-wide improvements to pedestrian ways and public transport, a short-term strategy could focus on smaller but highly visible access improvements which provide good publicity for all stakeholders and encourage officials to do more. The more your tactics result in “win-win” situations where everyone is pleased with the results, the easier it is to modify your tactics to create even bigger successes.

- ***Use the media,*** such as newspaper, radio, and TV stations to explain why access to transportation is needed. Most media coverage occurs when an event is held or plans are announced. Events could include the formation of your group, the presentation of a survey or report to a government official, or a demonstration at an inaccessible transit site. If possible, form personal contacts with interested reporters for newspapers, radio, or television. In addition, letters to the editor can help influence public opinion.

- ***Consider taking photographs*** of problems, showing a user struggling to cope with a barrier to transport. Once you have some good photo-



Stairs are a visible barrier to access

Photo by Walter Spillum

graphs of a barrier, people say “Oh, I see! How ridiculous to have this barrier!”

For example, drawings of disabled people unable to climb stairs or cross other barriers have been effectively used in “The Japan Times” newspaper.



Door-to-door transport in Kuala Lumpur

Photo by Persatuan Mobiliti

- A new method is the use of *e-mail advocacy*, sometimes (if the cause is big enough) involving advocates from around the world.

From Thailand: An e-mail campaign which targeted the media and government officials played an important role in a decision by Bangkok authorities in 1999 to make five of their new Skytrain stations accessible.

- ***Build a popular campaign*** by creating alliances among people with different types of disability, and among disability agencies and other stakeholders. As one disabled advocate in Malaysia put it, “We have to bring our problems into alignment with mainstream concerns. It is like getting into this big boat and helping it to steer the right course.”

- ***Do your own research*** so that you can support your arguments with solid facts. As time permits, learn about the design of local public transport. If there is a subway (metro) or rail line, is it publicly or privately owned? Are there plans to build new stations? Who regulates the system? Who do the regulators report to? If they report to an elected official, when is the next election? If your city is served by small vehicles (vans, micros, shared-ride taxis, auto-rickshaws, etc.), how many vehicles are there? Who owns them? Are many driven by owners? Have the owners formed associations? What positive incentives or negative disincentives do the drivers have to drive safely? Are there plans to replace vehicles? If so, has consideration been given to making these vehicles more accessible?

Insofar as possible, find out about the financial structure of public transport in your country, region, or community. Are there formal budgets for transport provided by public or private sectors? Who makes the transport budget decisions? Who makes the budget decisions for streets, sidewalks, and pedestrian access? When does the budget year (fiscal year) begin? What is the process for forming the annual budget and when are the key dates for budget decisions? It can be helpful to connect your promotion of accessible transport with the timeline for the approval of the annual budget for the operation or improvement of that transport.

- ***Get to know key people.*** Make personal contact with government officials such as elected officials, planners, and transportation officials. Get to understand their viewpoints and also the structure of the government agencies you are working with. Find out who is on your side and who may be opposed. Try to find a “champion” for your cause in government or the media or a university.

- ***Consider sensitivity training sessions*** for transport officials and planners willing to experience at first hand the obstacles faced by passengers with disabilities, perhaps by navigating a transit terminal in a wheelchair or using a blind-fold to experience the problems faced by blind passengers. Sensitivity training can convert some officials into allies. But always permit officials and transport staff to approve the time and site for such training.

- ***Be persistent.*** Success often depends on the patient continuation of advocacy efforts. *

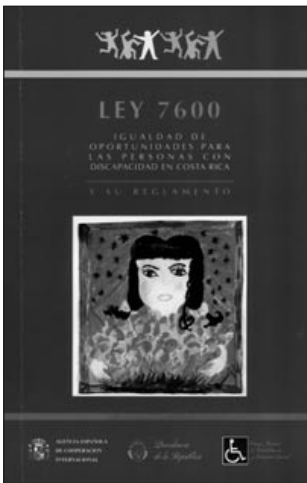
- ***Give credit to officials when they take positive actions.*** When a decision is made in favor of accessible transport, be quick to publicly congratulate the authorities.

In addition, disability advocates and their organizations have many other methods to advocate for access for all. Here are some:

- ***Print and distribute copies of any existing legislation, norms, or other material which requires or promotes access to transport or to pedestrian pathways.*** Such legislation needs to be well-distributed, hopefully in an easily understood form and in accessible formats.

An example from Costa Rica: The National Council for Rehabilitation and Special Education and the Office of the President, with assistance from Spain’s Agency for International Cooperation, distributed 5,000 copies of Costa Rica’s National Law 7600, mandating

* Many of the methods listed on pages 7 and 8 above come from SUSTRAN’s *Taking Steps, a Community Action Guide* for transport advocates, pages 78-80 (see Resources section).



access to transport and other sectors. A follow-up publication provided further commentaries on this law.

- *Carry out focus groups by age and disability*, such as for seniors, for blind persons, those who are visually impaired, deaf persons, and those with mobility impairments.

Even though advocacy should focus on the needs of all groups, one part of cross-disability advocacy is to make sure that the needs of people with different types of disability are fully known. And, by meeting the needs of passengers with a range of disabilities, transport planners end up creating transport systems that are also useful to a range of able-bodied passengers who are often encumbered with packages or children and thus are mobility-impaired. “Accessible design” for disabled passengers thus encourages “universal design” for all passengers.

A focus group is a structured process in which knowledgeable people with disabilities provide a detailed description of travel barriers which they personally face during an entire “trip chain” from residence to transit stop to vehicle to destination. The results of these focus groups may be sent to government and transport agencies as a valuable contribution as they make plans to improve their services. If a public campaign is going on, focus group results may be of interest to the media. Focus groups are used widely throughout the world. They help businesses know what their customers really want, and disabled passengers should be considered customers of transport agencies.

From Malaysia: An NGO in Kuala Lumpur held separate focus groups with older persons, mothers with children, blind persons, and those with mobility issues, in preparation for a workshop on accessible transportation in 2000.

- *Publish a directory of accessible facilities or transport* in order to encourage those who have

committed themselves to mobility for all. It is helpful to honor establishments which take the lead in creating accessible facilities. For example, a guide to accessible public buildings, stores, restaurants, theaters, houses of worship, and other public facilities could be published to highlight good practice and encourage the public to support them.

Examples from Latin America: A guide to accessible restaurants and other facilities was published by Libre Acceso in Mexico City. CONADIS and others in Lima, Peru, published an access guide to theaters. Rio de Janeiro’s Independent Living Center published a guide to accessible transport and facilities in downtown Rio. Sometimes such guides are jointly published by a government agency under the guidance of a knowledgeable NGO.

- *Carry out an “accessibility audit” of transport facilities.* This is a technical evaluation to accurately reveal the scope of what needs to be done. An access audit answers such questions as, “Is there an accessible travel path from outside a train station to the platform where the trains stop?” Results could be sent to the media as well as to the transport agency.

An example from India: Members of the Society for Equal Opportunities for Disabled Persons in Hyderabad performed a detailed Access Audit Report on sixteen existing railway stations within a suburban commuter transport system in the Hyderabad urban area. The audit included access to car parking, station entrances, platform access, bathrooms, public telephones, ticket counters, drinking fountains, food facilities, and public information. Each station was evaluated separately.

Accessibility audits can also be performed in order to upgrade other pedestrian infrastructure such as streets, sidewalks, or pathways. Such audits can be used as part of a formal planning process to identify barriers and deficiencies. These audits can be of policies, regulations, fare scales and staff behavior as well as vehicles or infrastructure.

Access audit guidelines are needed to assure that

A case study

Malaysia: Disability NGOs reach out to other stakeholders in Penang

The Society of Disabled Persons of Penang (SDPP) is a disabled persons' NGO formed in 1988 with 250 mainly low-income members from all major ethnic groups. The SDPP recognizes transport as a key concern of disabled persons and has sought accessibility to transport since its inception. The response of government authorities has been slow and thus the SDPP feels a strong need for additional advocacy for accessible transportation.

SDPP advocacy has been varied and has met with mixed success. In 1998, the SDPP and leaders with mobility disabilities worked with representatives from the visually impaired, hearing impaired, and other NGOs to present their needs to the Penang Island Municipal Council. While one stretch of road was improved immediately, other follow-up did not occur. Meanwhile, SDPP's advocacy continued through statements published by Penang's supportive media.

SDPP also strengthened its efforts by working with other local transport advocacy groups. SDPP joined STEP: Sustainable Transport Environment Penang, working with other pedestrians, public transport users, bicyclists, and local residents to seek safe and accessible pedestrian improvements. They went beyond disabled persons' transport problems and learned about the transport problems of other stakeholders. In turn, NGOs advocating pedestrian and bicycle transport have begun to support disabled persons' mobility concerns.

In 2000, the SDPP co-organized a workshop featuring a British expert in the accessibility field. The well-attended meeting included top officials from government bodies, among them the general hospital, traffic police, the Penang Island Municipal Council, architects, town-planners, and other disabled people's groups. Detailed local press coverage provided Penang's residents with unprecedented coverage of accessible transport issues. SDPP has also published a book on non-handicapping environments and has translated AEI's guide, *Mobility for All*, into Chinese and Malay.

Penang remains an inaccessible city where the mobility problems of persons with disabilities are given low priority. However, local awareness of access issues has increased. The SDPP feels

that the time may be ripe to refocus its advocacy on the national government, since transport is a centralized issue in Malaysia. SDPP leaders point out that there are programs in place to educate, train, and employ persons with disabilities and that laws are in place to make sure that buildings are accessible. They feel, however, that access to transportation is a missing link in disabled persons' quest for independent living.

Based on material prepared by Kuan Aw Tan of the SDPP with AEI for the World Bank. Go to <http://www.disabledpersonspenang.org> for more information.



Dedication of accessible pedestrian crossing in Penang

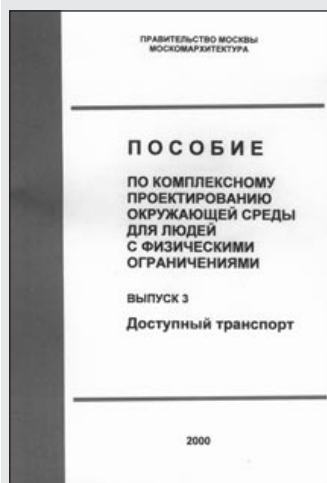
Photo provided by SDPP

audits are performed in an equitable and knowledgeable manner, based on objective and measurable criteria, norms, or guidelines. Guides have been published in many countries to help determine the level at which facilities are accessible.

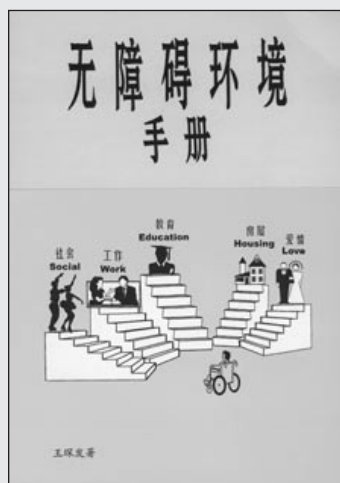
An example from Mexico: Mexico City's Libre Acceso worked with city officials to publish a guide to evaluate and certify buildings as accessible to persons with disabilities.

- ***Publish an access guide with norms and guidelines which describe the emerging international standards for access to streets, buildings, and vehicles.*** This is happening around the world. Such publications can become a major factor in determining more formal norms within a country. They are available in printed and/or web versions.

From Asia and Russia: The Society of Disabled Persons of Penang published a guide listing norms for access to streets, sidewalks, and public facilities. In Moscow, Moscomarchitectura published a series of guides to the outdoor urban environment, to buildings, and to public transportation.



Russian guide



SDPP guide

From Latin America: CONADIS (Ecuador) has published access standards. APRODDIS in Peru has published accessibility guidelines. The Mexico City municipal government has published an official access manual with technical norms. Such norms have been incorpo-

rated into enforceable legislation mandating accessible transport in Argentina, Brazil, Costa Rica, and other countries.

- ***In many countries, advocates with disabilities have held public demonstrations,*** often at inaccessible transport facilities, to focus public and media attention on their concerns. Circumstances differ, but such demonstrations should focus on the problems of barriers to transport and desired solutions rather than on the personalities of transport and other officials with whom relationships of mutual trust are desired. (See case study from Japan on page 14.)

- ***When all else fails, take legal action to make sure laws are enforced.***

An example from Brazil: Rio de Janeiro's Center for Independent Living successfully used the courts to enforce a law which required that subway stations include accessibility features for passengers with disabilities.

- ***Carry out local, national, regional or international workshops, seminars, or conferences to promote accessible transport.*** Such events bring different stakeholders together to learn about best practices from around the world as well as to plan projects at local or national levels. Events such as these serve many purposes. By bringing disability leaders together with different government and other officials, people get to know one another and better understand each other's situation. Such meetings provide a common body of technical information for everyone while introducing basic concepts of accessibility. Even if outside consultants make presentations, it is always wise to request key local officials to address the workshop as well.



Workshop on accessible transport in El Salvador

Examples:

At a global level, the triennial TRANSED conference series presents the latest research on mobility and transport for elderly and disabled people.

At a regional level, the United Nations ESCAP has sponsored training seminars in Bangkok, Thailand, and Shenzhen and Hong Kong, China, concerning access to the built environment and to transport. The Uruguayan Institute of Technical Norms (UNIT) has sponsored a seminar for Latin American practitioners in Montevideo. And the Inter-American Development Bank has sponsored a seminar on accessibility issues in Latin America, held at an annual meeting in Santiago, Chile.

At national levels, workshops have been sponsored in all western European and North American countries and in Mexico, Argentina, Costa Rica, El Salvador, Peru, Uruguay, South Africa, China, Malaysia, Thailand, and other countries.

At municipal levels, workshops or similar gatherings have been held in countries around the world.

- Where possible, *translate resource materials* from other countries into local languages. The resource section of this guide points to materials which are often available for translation with permission of the publisher. For example, AEI's guide describing inclusive transport, *Mobility for All: Accessible Transportation Around the World* has been translated into Spanish, Portuguese, Japanese, and Chinese versions, with other translations in process.

- *Less-wealthy countries may have especially relevant expertise to contribute to the growing international experience.* For example, see the Resources section to access a report from the international project, *Enhanced Accessibility for People with Disabilities Living in Urban Areas*, based on experience in Latin America, Asia, and Africa.

From Argentina: Silvia Coriat, an architect with Fundación Rumbos in Buenos Aires authored *Lo Urbano y lo Humano: Hábitat y Discapacidad*. This is a valuable resource for

Spanish-speaking readers seeking an in-depth understanding of universal design for public spaces and the built environment. This recently



published guide is an example of the positive impact which architects have had in several less-wealthy countries.

In fact, countries from around the world continually adapt best practices in other countries for their own use. Low-floor buses were first introduced in Germany and community service routes in Sweden. Ramped taxis were first used on a large scale in the United Kingdom while Japan has been a leader in access to pedestrian paths. Beginning with Brazil, Latin American countries have pioneered the introduction of accessible Bus Rapid Transit concepts now being proposed in countries around the world.

**Everyone needs to be an advocate
for inclusive transport**

Promotion by Other Stakeholders

Promotion of inclusive transport that provides access for all passengers is not limited to disability agencies and NGOs. Here are actions which should be taken by *other* stakeholders. This is a general model and needed actions may vary from one situation to another. Many of these actions are discussed in the section on Planning beginning on page 16.

National governments

- Review existing design standards in countries around the world for access to buildings, pedestrian infrastructure, and public transport stops and vehicles.
- Establish a coordinating body or other mechanism to assure that different stakeholders are consulted as legislation is prepared.
- Enact legislation and detailed regulations mandating access for all to new buildings and infrastructure, access features to all new transport vehicles and systems, and the phasing in of low-cost access features for existing infrastructure, vehicles and transport systems. Such legislation should prohibit discrimination against disabled people in the design of services, fare schedules, and operating procedures. Legislation could also require staff training to improve the services offered to all passengers, including those with disabilities.

Local governments (or state, provincial, or regional governments as appropriate)

- Carry out a planning process, prioritize the removal of barriers from infrastructure and transport, and establish implementation plans to phase in transport systems serving all passengers, including those with disabilities. (These steps do not need to wait for the passage of national legislation, which can benefit from the experience gained by local governments.)



Stakeholders from around the world meet at the triennial TRANSED conferences

Transport ministries and regulators

- Should carry out national and local laws and regulations and participate in the planning process to implement accessible transport systems.
- Regulators should negotiate agreements with transport operators with incentives to operate their vehicles in an accessible manner and to maintain accessible features in good operating condition.
- Regulators should monitor operator performance to assure compliance.

Other local departments (planning, public works, traffic police, etc.)

- Should coordinate with transport ministries and regulators to assure that accessible pedestrian infrastructure and transit stops are phased in to accommodate routes served by accessible transport vehicles and that traffic laws are enforced. For example, traffic police should enforce laws which prohibit private cars from parking in public bus stops.
- If local government departments do not exist, community agencies and NGOs should work directly with transport operators to encourage the inclusive design and operation of their vehicles.

Transport system owners or operators

- Should work with regulators and governments to assure that they negotiate equitable agreements providing for accessibility while being fair to all parties.
- Should train their staff, maintain their equipment, and market their services to disabled passengers in accordance with their agreements with regulating agencies.
- Should specify access features on vehicles added to their fleet and modify existing vehicles with low-cost access features (for example, large print destination signs, hand grasps in bright contrasting colors).

Bus drivers & fare takers; rail personnel

- Drivers and their organizations should be consulted and mechanisms should be in place to incorporate their feedback to improve service.

A case study

Japan: Advocating barrier-free transport for all

Nowadays in Japan, mobility advocates have joined forces with welcome partners of the disabled: the elderly, stroke victims, pregnant moms pushing baby strollers, bicyclists, manufacturers, politicians and professionals.

Advocacy takes many forms in Japan: street and public demonstrations, political diplomacy in urging the national and local governments to pass barrier-free legislation, educational public relations efforts, international cooperation with United Nations agencies such as ESCAP, grass roots NGO/NPO local and national groups, and in broader movements such as Disabled Peoples' International (DPI) and Independent Living Centers (ILC).

"Barrier-free" has become a major theme in Japan as expressed by the AEI manual *Mobility for All*, published in Japanese by the Wakakoma Independent Living Information Center (WILIC), Tokyo Toritsu Daigaku (Tokyo Metropolitan University) and Disabled Peoples' International (DPI-Japan), all in Tokyo. This is an example of information at work as an educational and political tool to describe accessible transport concepts to different stakeholders.

Another example of information at work is a web site: Accessible Japan – A Travel Guide for Wheelchair Users. WILIC has their web site: <http://www.wakakoma.org/aj/> which contains travel information useful for wheelchair users in Japan. It is the first one in Japan in the category of tourism and travel to give English as well as Japanese information for accessibility about points of interest, lodging and transportation in the major parts of Japan.

Another strong advocacy group in Japan is led by the Human Care Association, the Tokyo pioneer in Independent Living Centers for disabled persons in Japan. One of the most influential Japanese leaders is Shoji Nakanishi, Chairman of Human Care, who began his special efforts more than 15 years ago in creating services for the disabled by the disabled. Nakanishi uses a wheelchair because of an accident when he was a college student. His efforts have paid off with 104 centers thriving all over Japan. Nakanishi says, "All the painful efforts, the impossible problems, the lack of money, have evolved into a success and the big gain has been worth all the pain." Nakanishi, one of the activist originators of DPI's public demonstrations for access to transport, now focuses on the international arena via cooperation with the United Nations' ESCAP and disability NGOs in other Asian countries.

The disabled communities are leading the way by actively pushing for reform in access to trains, buses, boats, airplanes, sidewalks, streets, shops, government offices, hotels, shopping malls, shrines, and temples. In the forefront of this broad movement is the DPI-Japan organization headed by Ryo Misawa, Secretary General. Misawa advised, "This didn't happen overnight; we started our efforts in this direction over 15 years ago. This year's Barrier Free demonstration is our 14th annual 'Demo' and we are getting stronger and stronger." Basically, it is a one-day concentrated demonstration at inaccessible spots in the Tokyo transportation system. Participants include hundreds of disabled activists in wheelchairs along with walkers and marchers on foot accompanied by families, friends and even government workers and politicians. The event is usually held on Disability Day in November every year. Efforts such as this encouraged the passage of Japan's comprehensive Barrier-Free Transportation Law in 2000.

– Prepared for AEI by Marcia Masae Kashiwagi and Walter Spillum in Japan, at openword@sepia.ocn.ne.jp



United Nations ESCAP and the Government of China funded this regional seminar on accessible transport

- Driver incentives for courteous service to disabled passengers should be developed.

Manufacturers and vendors

- Governments should require manufacturers to include features on their vehicles which will benefit disabled passengers as well as all other passengers.
- Manufacturers should take the lead in seeking input from disability groups about how to improve access to their products with features which promote accessibility and safety.

Academic and research institutes

- Should carry out research relevant to less-wealthy countries, including a strong focus on access features for passengers with sensory and cognitive disabilities as well as passengers with mobility disabilities.
- Should train architects and engineers and others to become advocates for universal design, inclusive infrastructure, and transport for all.

Architects

- Should take the lead in promoting inclusive design of buildings and public spaces.

Funding sources

Loans and grants for transport-related projects are made by development banks such as the World Bank, the Inter-American Development Bank, or the Asian Development Bank. Other funds come from government aid agencies, foundations, and other sources.

- Funding sources should take the lead in requiring that financing for transport projects in less-wealthy countries include accessibility features for disabled persons and that services be regulated to assure that they are operated in an accessible manner.

- Funders need to revise their funding criteria to focus support on research and demonstration projects to develop low-cost approaches to inclusive transport in developing countries.

- Transport infrastructure staff and social development staff of funding agencies need to work together so that inclusive transport does not “fall through the cracks” between their areas of expertise.

Advocacy needs to result in commitments such as national and local laws, regulations, norms, guidelines, policies, and funding criteria which lay the basis for concrete plans to make access happen. But these commitments remain just pieces of paper unless they result in real improvements to public transport. Too many countries and agencies have policies on inclusive transportation which look good on paper, but do not result in *actual improvements* in mobility.

In order to make accessible transport happen, the promotion of inclusive transport should merge into a planning process. The next section discusses this process.



World Bank and Inter-American Development Bank staff meet with other stakeholders at a roundtable in Washington, DC.

PLANNING ACCESSIBLE TRANSPORT

No matter how wealthy or poor is a country or region or city, its citizens can work together to set reasonable goals and to plan for the future. It is possible to establish a course of action to go from where you are to the goal of where you want to be. Planning is an orderly way of getting to this goal. By setting specific and realistic objectives, the goal can be reached through a step-by-step process.

In most countries, planning is seen as primarily the task of government officials and transport system managers. But planning also involves *working together* with many stakeholders, including representatives of public, private, and NGO sectors. Successful stakeholders in a planning process usually show these characteristics:

- They establish mutually agreed goals
- They document the needs of passengers, including those with disabilities, and the resources to meet those needs
- They involve the different stakeholders in the planning process (no one wants to be surprised or left out)
- They understand the financial issues
- They develop detailed implementation plans to make steady progress
- They monitor and evaluate the results of each formal step
- They keep in touch with the different stakeholders
- They actively promote newly accessible transport services among potential passengers with disabilities

In addition, a planning process should ideally exhibit the following features:

- It is a continual process, in which everyone learns as each step is taken.
- It is a process which seeks transparency and integrity. Participants know what is going on and learn to trust one another. (Corruption

of any kind is harmful to a planning process.)

- It is a process which fosters accountability by assigning designated personnel and agencies with defined tasks to handle planning, implementation, monitoring and evaluation, and service improvements
- It is a process which is realistic by addressing all the complexities of the situation.
- It is a process which learns from others, including relevant experience in other cities and countries around the world.

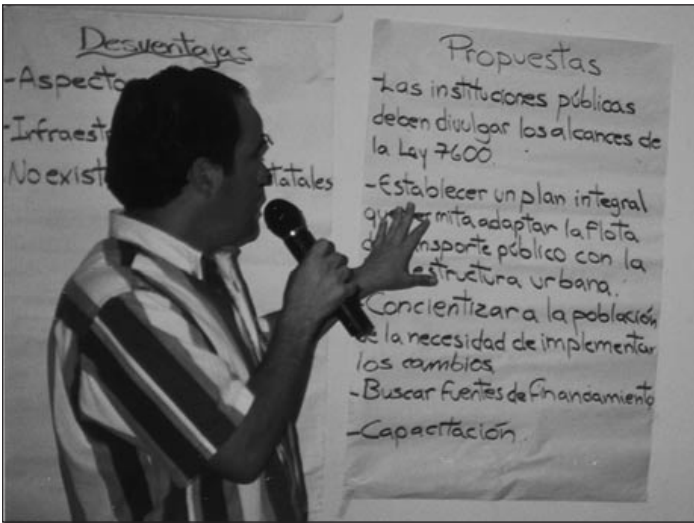
Effective Planning

Who?

Planning is a joint activity. It involves all the major stakeholders in a specific project. In some cases, only a few stakeholders may be involved, as in the example below.

A small-scale example: If two disability NGOs and three social service agencies each have a single accessible vehicle and wish to coordinate their services, they may decide to plan together to more efficiently use their vehicles to provide door-to-door services not only to the three agencies but also to other destinations. The vehicles might be able to operate with more passengers per kilometer driven by picking up each other's members or clients, thus reducing costs and increasing the mobility of the passengers. This type of joint planning requires mutual trust between the different NGOs and agencies and would probably work best if the vehicles were managed by just one of the NGOs or agencies or, alternatively, by a single business contracted by the five participating organizations.

A large-scale example: Often, planning is on a larger scale. Let us take the case of a typical major city in South America or Asia which, in response to advocacy, desires to provide increasing access to its bus and subway sys-



Costa Rican planner at accessible transit workshop

tems. Here are some of the possible stakeholders:

1) Clearly, several disability advocates would be participants, representing, for example, the city's Center for Independent Living, other major disability NGOs, and a center for universal design at a branch of the national university in that city.

2) Different city departments (ministries) would also need to be represented, including (if they are organized this way)

- The Planning Department (if that is a separate agency)
- The Department of Transportation or other ministry or agency which concedes or regulates private transport providers
- The Department of Public Works (which oversees streets and sidewalks)
- The Traffic Police
- The Departments of Social Services and of Public Health (if there are such agencies)

Note the need for more than just the transportation department to be represented. The *Department of Public Works* is needed if it is in charge of construction and maintenance of streets and sidewalks, in order to make sure that passengers with disabilities can get to transit stops and that the transit stops themselves are

accessible. The *Traffic Police* are needed to help keep private cars and hawkers (vendors) from blocking sidewalks and transit stops. Police also need to promote the safety of women, disabled passengers, older persons, and everyone else for whom fear for personal safety may otherwise prevent them from using public transport. And the departments responsible for *health and social services* would have valuable suggestions for key sites needing to be served as soon as possible by accessible transport.

3) The transport providers must be represented. Assuming the subway is run by a private provider (under a concession with the city), and the bus system is run by many private providers in an association, representatives from the subway company and the bus association would be needed, and ideally from the larger bus companies as well. (The same holds true for shared-ride taxi operators or other operators of small vehicles.)

4) In addition, social service agencies may assist with their participation, including hospitals, schools, and other agencies wishing to increase the mobility of their clients, patients, or students.

These various stakeholders will probably decide to meet, perhaps on a monthly basis, to plan for accessible transport. They may call themselves an Accessible Transportation Committee (Rio de Janeiro) or an Accessible Transport Working Group (Mexico City) or some other name. Their functions are similar. The head of the working group will vary. In some cases this person may be an outstanding leader within the disability community and in other cases another "champion" of accessibility, perhaps from a government body, a social service agency, or a faith community.

A single person or agency should be designated to coordinate or head up the planning process. This leader may be an accessibility "champion" or someone else in a key ministry or agency who is tasked with the responsibility of improving access for all.

A case study

Mexico City: Municipal departments look to NGOs as they plan a network of accessible transport and infrastructure

One of Latin America's most respected advocacy agencies is Libre Acceso (Free Access), an NGO in Mexico City. The founder of Libre Acceso coordinates an Accessible Transport Working Group (photo below) involving municipal agencies such as the Department of Transport and Highways, the Metropolitan Transport System, the Department of Services and Construction, and, most recently, the Passenger Transport Network, with the collaboration of different social service agencies and non-governmental organizations.

The Working Group began with the evaluation of accessible public transportation and with an accessibility project for selected Metro (subway) stations. Two of the ten subway lines were selected, with access features added to four key outlying stations connected with a central station in downtown Mexico City.

Later, Libre Acceso became involved in curb ramp evaluation and design review. Currently, the Working Group participates in a planning process to authorize more than 3,500 new curb ramps (beveled "curb cuts" to assist wheelchair users and others) on main avenues each year, taking care that they follow international standards and prioritize accessible pedestrian routes to the five newly accessible Metro stations. Design guides have been published as well, to assist in performing accessibility audits of buildings and infrastructure needing improvements. Libre Acceso points out that it is far less expensive to provide full accessibility to new construction than to modify old construction.

Twenty lift-equipped buses and four lift-equipped trolley buses were deployed several years ago along high-use routes. More recently, fifty new buses were dedicated (photo bottom right), equipped with lifts and other accessibility features, serving five complementary bus routes which also connect with the original accessible routes and subway stations. The resulting integrated inter-modal network (pedestrian routes, buses, trolley buses, and subway) illustrates the results of involving disabled people and all other stakeholders in a planning process which maximizes impact in spite of severe budget constraints.

Libre Acceso's influence is not limited to Mexico's capital city. An office of disability affairs was formed in the executive branch of Mexico's national government following the election of its new president. This office is headed by a disabled person and has other disabled persons including an architect on its staff. A strong advisory role is shared with Libre Acceso.

Based on a paper by Francisco Cisneros for a TRANSED conference (Warsaw, 2000). For information, go to www.libreacceso.org.



Accessible Transport Working Group



Dedicating accessible buses in Mexico City

Photo by María Eugenia Antúnez

In Hong Kong, Kuala Lumpur, Mexico City and many other cities in Asia and Latin America, a dedicated “champion” of accessible transport has been the personal driving force behind the initial creation of accessible door-to-door or fixed route transport. These “champions” are successful because of their ability to involve other stakeholders in implementing their vision.

Effective Planning

How?

Planning is part of a larger process to actually implement the design and operating features which make transport accessible. This section describes some actions to begin a planning process, then continues with steps to prepare a written plan (in this case for accessible bus services), and concludes with a list of actions to implement the plan.

These actions could also be used to plan access to vans, shared-ride taxis, micros, or other small vehicles when used on fixed routes.

While similar principles apply to the preparation of a plan for door-to-door services aimed exclusively at persons with disabilities, the actual steps to prepare and implement a written plan would differ. For example, planning for door-to-door services may require less emphasis on access to pedestrian infrastructure. Unlike fixed-route bus service, planning for door-to-door service should focus on carrying the optimal number of passengers with disabilities per vehicle trip in order to increase service while lowering costs.

Remember that every situation is different. Some actions noted below may already have been taken and others may not be necessary. Other steps may have to be added to take account of your specific situation and of the level of detail required to actually implement the needed improvements.

Some steps to begin a planning process

- Listen and learn from disabled passengers. This is absolutely fundamental to making service design and operation user-friendly. If it is not done, the service will suffer.

- Form an advisory committee of knowledgeable persons with different disabilities. Members of advisory committees should have as much experience as possible in using public transport so that their advice assists transport officials and planners who may not otherwise understand their problems. It is important for officials not to assume they understand their customers’ problems.

- Seek input from the community. Consider organizing community meetings, structured focus groups, and/or accessibility audits to gather information on barriers to transport.

- Obtain the support of key persons, such as public officials and transport managers as well as other key stakeholder agencies and NGOs. Seek written agreements where possible.

- If possible, designate and train people to coordinate the planning and implementation process.

- Build cooperative relationships among government agencies and ministries. Encourage these officials to plan together to provide an accessible travel chain between destinations and transit stops as well as on board vehicles.



Some members of Rio’s Accessible Transportation Committee
Photo by Susan Rickert

A case study

Rio de Janeiro: An independent living center helps implement a master plan to provide accessible pedestrian routes

In Rio de Janeiro, the urban revitalization process was initiated using the principles of universal design. The “Rio City Project,” implemented by the municipal government in 1994, incorporated the demand for inclusive barrier-free design put forward by the Independent Living Center of Rio de Janeiro (CVI-Rio), an NGO which had gained expertise in this field.

The main thoroughfares in the city were chosen, including the most important streets in 14 districts. A competition was held for architectural projects aimed at solving common neighborhood problems. This launched a rich experience of transforming a previously inaccessible city. During the project, CVI-Rio supervised the implementation of inclusive design through weekly meetings, daily visits to construction sites, and drafting reports to the City Government.

When the accessibility process was launched in the Rio City Project, the goal was to focus on inclusive design with all users in mind, regardless of their physical abilities, based on estimates that over half of the population did not fit the standard stereotyped individual for which most infrastructure has been designed around the world. Based on this principle, universal solutions included ramps at crosswalks which serve all pedestrians, as well as more specialized solutions such as texture-coded footways to guide the visually impaired.

During the Rio City Project, CVI-Rio had to accept the limitations of adapting an existing city. This is very different from working accessibility into a city’s original design. Even so, the project has become a benchmark for accessibility in Brazil, visited by professionals from other areas of the country. Disabled people have begun moving to the city’s remodeled areas to live. However, no place that has been accessibly remodeled can be considered permanently accessible. External factors interfere constantly and must be monitored. The success of pro-accessibility efforts thus depends directly on a commitment to maintenance, publicity, and monitoring.



Rio’s Independent Living Center uses shipping containers in its innovative and accessible headquarters.

An accessible infrastructure also increases the viability of accessible public transportation. Rio de Janeiro’s expanding Metro (subway) system is an example. CVI-Rio provided technical assistance to a commission formed to have oversight over access improvements in Rio’s subway stations. New access features include stair lifts for wheelchair users, which, while not representing universal design principles, do improve the mobility of wheelchair users and others with mobility concerns.

Based on a study prepared by Veronica Camisão of CVI-Rio with AEI for the World Bank.

Some steps to prepare a written plan

Once these preliminary steps are taken, begin to prepare a written municipal, regional, or national plan to implement inclusive design and operating practices.

1. Review the current situation

Gather data concerning the current service, including the companies involved and their vehicle fleets, the number of lines, number of stops, the capacity of the buses and the demand for capacity on each line. Gather data on any access features already found on the bus fleet. Also, review the current accessibility of bus stops and the pedestrian routes leading to these stops.

2. Estimate the potential demand for service by passengers with disabilities

This is often best done through a survey of disabled persons in the community. The results of a sample of users can then be extrapolated to measure the impact of inclusive design on increased usage of the different bus lines. This can be a difficult task when many disabled persons have been unable to ride buses due to barriers. An alternative approach is to plan accessible routes so that they will serve “trip generators” such as residential areas, schools, and shopping centers. In the absence of marked concentrations of persons with disabilities (such as at rehabilitation centers), the most-used routes may also be the routes most favored by passengers with disabilities.

3. Identify the bus lines which appear to meet the greatest need within the disability community

The data generated in step 2, above, should make it possible to identify the preferred bus routes for introduction of accessible service. This step should be in cooperation with other groups of passengers who would benefit from greater access, such as older persons or mothers with children.

4. Evaluate what needs to be done to make pedestrian routes more accessible to the bus stops along the chosen lines

In some regions, these paths may be in good condition. In others there may be a need to remove trash, fill in holes, build curb ramps, etc.



Accessible bus prototype in Bangkok

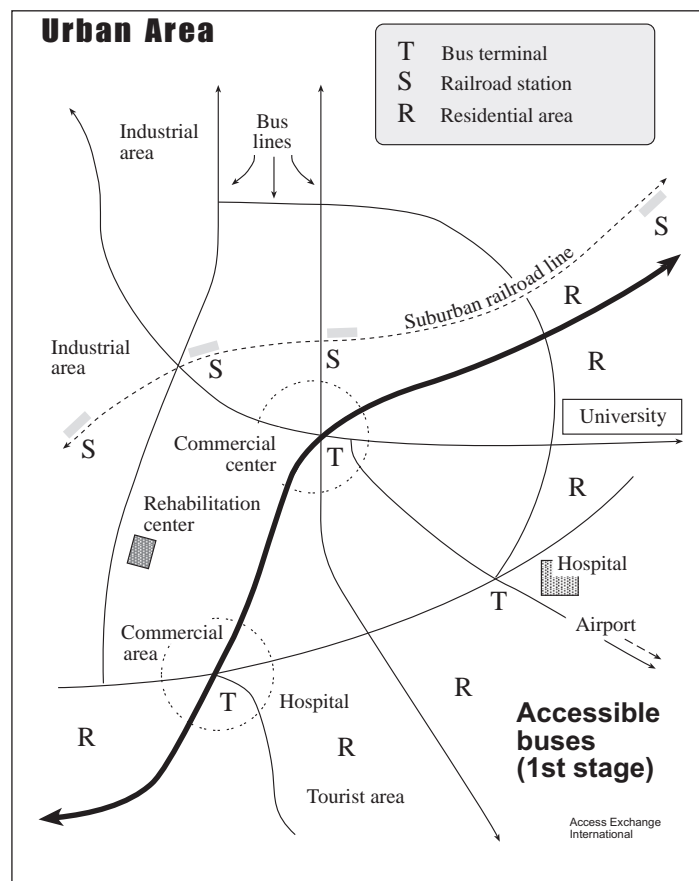
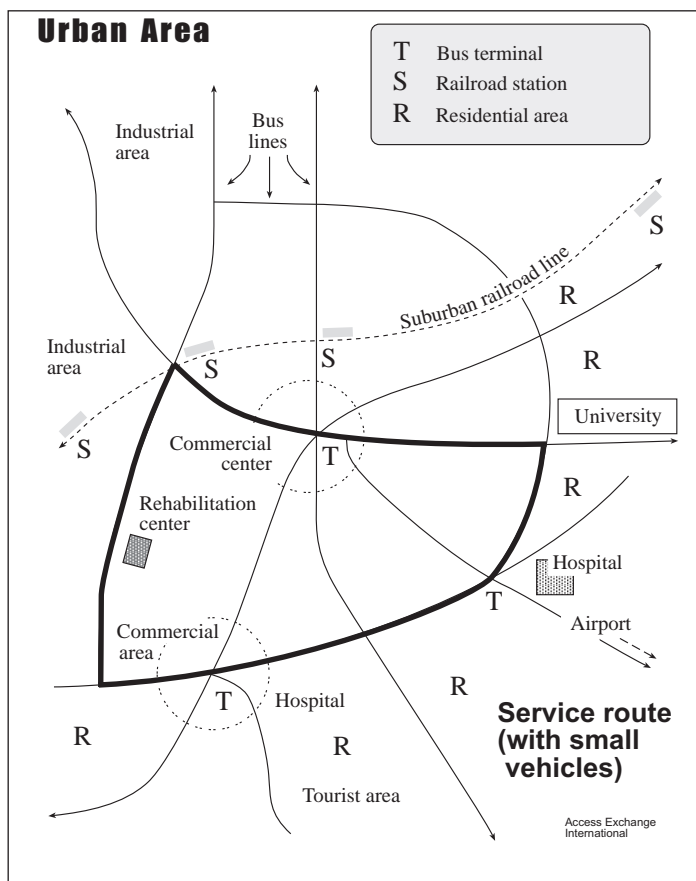
Photo by DPI-Thailand

5. Designate the phasing-in of more-accessible buses in combination with the phasing-in of accessible bus stops

This step includes planning the phased-in deployment of more-accessible buses on lines served by accessible pedestrian pathways.* The plan should establish objectives for:

- **Upgrading pedestrian paths** with access features. (A sample wording: “By June 30, beveled curb ramps will be installed at the intersection of A Street and B Street adjacent to the stop on Route number 3 at X school or hospital.”)

* Consideration could be given to phasing in one bus line at a time with all buses accessible, rather than mixing equipment on several lines, due to issues of marketing, reliability, scheduling, and maintenance.



A city might phase in accessible services in stages to make the transit system increasingly inclusive for those with disabilities and for older passengers. One way to start is with “service routes” using accessible ramp- or lift-equipped vans or small buses to connect key points as in the diagram above. This has been done in Puebla, Mexico; Medellín, Colombia, and Durban, South Africa.

– **Upgrading stops** with access features. (A sample wording: “By June 30, bushes which block the stop at X school or hospital will be removed so that the stop is two meters wide from the curb or edge of the road.”)

– **Introducing access features** on vehicles. (A sample wording: “A policy of having bus drivers announce key stops for blind passengers will be initiated in 30 days, while large-print destination signs with good color contrast will be introduced in 60 days.”)

– **Determining levels of service** (for example, “An accessible bus will stop every half hour at this stop.”)

– **Identifying the geographical areas** to be

Another alternative would be to initiate accessible services on a major bus route, using low-floor buses (as in Hong Kong or Buenos Aires), or, preferably, building a Bus Rapid Transit (BRT) system on a Latin American model, with high-capacity high floor buses served by ramped platforms with bridges at all stops. Both approaches permit disabled persons to board without steps. This helps increase service capacity for all passengers.

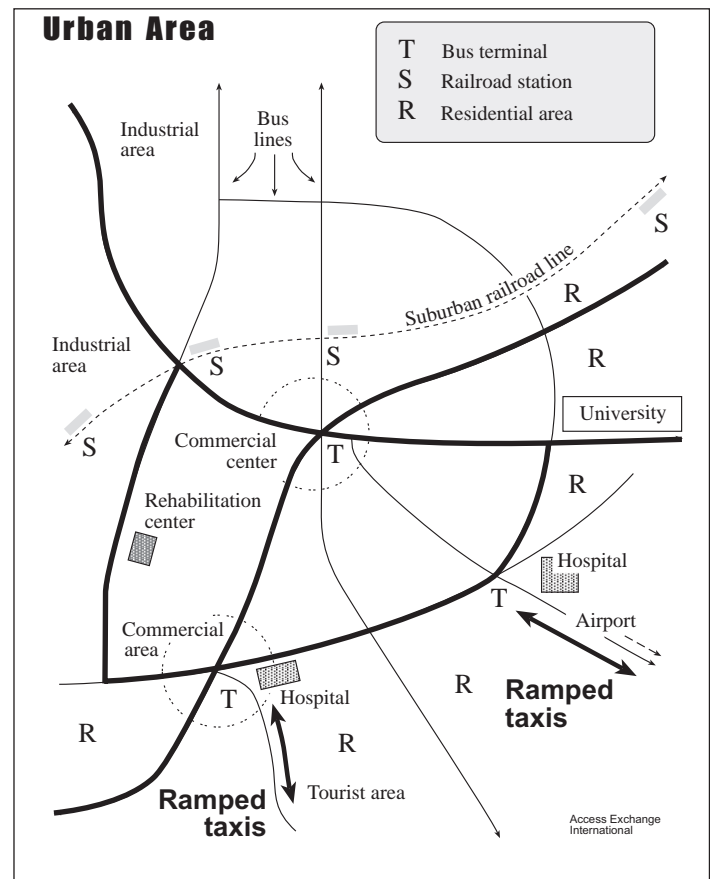
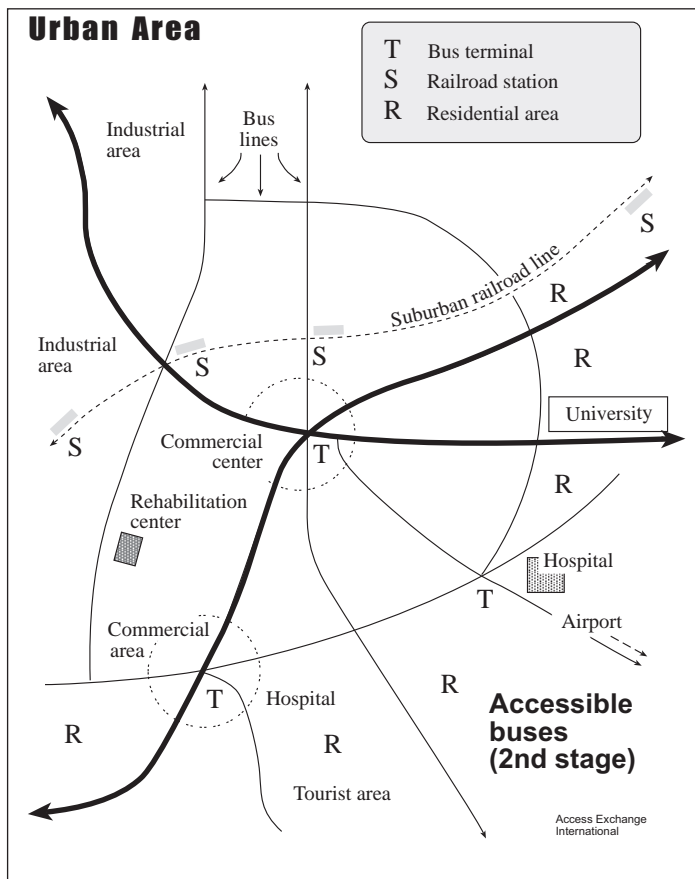
served (for example, “Bus service will begin on Route A on January 1 and Route B on June 1.”)

These objectives could also include determining short-term goals (for example, within 30 days), mid-term goals (for example, in one year), and longer-term goals (for example, a decision to obtain low-floor buses during the replacement of an aging fleet of high-floor buses).

6. Complete the preparation of the plan

A *policy section* would note the regulations, guidelines, or other policies which the proposed plan will follow.

A *financial component* could note the funding available and funding sources during given



The success of an initial accessible high-capacity bus route may lead decision-makers to expand the system. This has happened with BRT systems in major Latin American cities. Such systems are now found in Curitiba, Brazil; Quito, Ecuador; and Bogotá, Colombia; with planning going forward in Lima, Peru, and San Salvador, El Salvador. Other BRT systems are proposed for many Latin American and Asian cities.

Accessible vans or taxis could provide another welcome addition by providing door-to-door service, as is done in São Paulo, Brazil; Hong Kong, China; Cape Town, South Africa, and Kuala Lumpur, Malaysia. Ramped taxis would be especially useful for serving local airports or tourist attractions. This would provide a valuable addition to a family of services which could include service routes and low-floor or BRT buses. **Diagrams by Nicolas Finck**

budget periods (for example, fiscal years) to fund specific improvements to bus stops and on board vehicles. **

The action steps address the different matters presented in step 5, above, and could also address:

- The procurement of new or replacement vehicles or a schedule for the phasing in of access improvements to the current bus fleet

** Most access features on board vehicles (for example, high-contrast colors on railings and stairways, large-print destination signs, non-slip floors) are low-cost and often can be absorbed from the regular budget. Some access improvements occur when new (for example, low-floor) vehicles are purchased. Other improvements may need special funding.

- Fleet management issues (garaging, safety, maintenance, etc.)

- Driver recruitment and training, and the ongoing supervision of drivers

- Marketing to users

These action steps may include separate work plans to attach to the larger plan. Action steps may designate personnel to prepare a work plan, or assign people to do the work or to contract out for modifications, and to make sure schedules are kept. Work plans should always include the actions required and the person or agency responsible. Where appropriate, funding sources and amounts approved should also be included.

7. Disseminate and get feedback on the plan

The different stakeholders will need to comment on the plan. Then modify the plan as necessary.

Actions to implement the plan

Here are some of the actions which could be initiated to carry out the various components of the larger plan for accessible bus services:

- **Carry out improvements** to pedestrian pathways and stops, in order to improve pedestrian access as defined by the plan.
- **Procure accessible transport vehicles** or improve the current fleet of vehicles with low-cost access features. (These features are introduced in our guide, *Mobility for All*.)
- **Deploy the accessible fleet** of vehicles in stages according to the plan.
- **Carry out training** and periodic retraining
 - of drivers and fare collectors concerning accessible operating practices.
 - of maintenance personnel and other staff in keeping accessible design features in good order.
 - of managers, to ensure policies and procedures are friendly to disabled passengers.
- **Promote regularly scheduled maintenance of vehicles and of pedestrian routes to transit stops.**
- **Establish and monitor performance indicators** to measure progress in training transit staff, providing safe and courteous service, and maintaining accessible features in good order. If possible, provide a telephone number or other method for passengers to provide commendations or complaints about their transport service.
- **Promote the improved service among the public.** This step could include travel training (individualized travel instruction) for persons with disabilities who have never before been able to use public transport.

Go to the Resources section on pages 26-29 for more detailed material on the planning and implementation of accessible transport.

Possible objections to a planning process:

“We all know the need is there, so why do we need to go through this process?”

A major reason is the need to prioritize service so that the initial steps are as helpful as possible to as many people as possible. Also, the impact of proposed changes needs to be *measured* in order to help justify the process. Politically speaking, the more concrete the facts which are used to justify accessible transport, the stronger the case for positive change.

“This planning process is fine in theory, but our public transport is ‘too crowded’ for use by disabled persons.”

Passengers with disabilities are capable of determining for themselves if transport is too crowded for them to safely use. For example, if disabled persons are involved in planning for access to a city bus system, it is because they are convinced they can use that system even if it is crowded, or because they intend to use the system at times and places where it may be less crowded. They face issues which also affect many women, children, and older passengers. Disability NGOs around the world state that disabled passengers are generally no more “frail” than other passengers, in spite of their disabilities. They don’t want pity. They want transportation. Disabled persons unable to use regular public transport will advocate for door-to-door transport or community service routes to meet their needs.

“But what if government agencies do not exist, or they lack the capacity to plan and regulate public transportation?”

This is a difficult situation, of course, and is faced by millions of persons. This may be the time for local citizens – including citizens with disabilities – to come together, organize themselves, and demand better regulation and plan-

ning of public transport. In some cases it may be necessary for citizens to volunteer their labor or contribute funds to make pedestrian pathways more accessible and to work with local transport providers to encourage inclusive transport serving as broad a range of passengers as possible (see photo on page 28). Even under these difficult circumstances, there is a need to set goals and proceed in a step-by-step way to plan and implement actions to meet these goals using the general principles noted above.

Curitiba, Brazil: A successful planning process

The success of Curitiba's planning is widely admired. What makes it work? Here are some elements:

- Public transit is part of a larger integrated urban planning program
- Curitiba has a "family of services," including neighborhood buses, feeder routes, express routes, tourist buses, and specialized lift-equipped vans.
- A single fare for the entire system makes it easier to transfer from one line to another and provides an incentive not to drive private cars.
- Private transport companies are carefully regulated by the municipality.
- Companies are paid per kilometer driven, *not* per passenger. This means less stress for drivers and far more courtesy toward passengers.
- Curitiba uses raised platforms at each express bus stop. Passengers pay their fares when entering the enclosed platform and everyone – including wheelchair users and other disabled persons – rapidly boards via level bridges between the vehicle and the platform.
- In summary, Curitiba exemplifies best practices in universal design.

Improvements are made around the world because people advocate for such improvements, make sure they understand what is needed to make them happen, and then work with other stakeholders to carry out plans in an orderly way to implement the needed improvements. Inclusive transportation which is accessible to disabled and other passengers is no exception. We hope you will join others in "making access happen" in your country.

Access Exchange International
gratefully acknowledges a donation by



to help underwrite the preparation of this Guide.

Unwin Safety Systems manufactures safety equipment to provide comfort and security for both wheelchair and seated passengers during transport. Their fully tested range includes wheelchair securement systems, passenger seat belts, ramps, and domestic lifts. For further information, contact

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Web: www.unwin-safety.com

RESOURCES

During the past few years there has been a marked increase in resources available to assist stakeholders to advocate, plan, and implement accessible transportation around the world. The following selected resources are annotated with key publications (*in italics*) which focus on accessible transport. An * means the entire publication can be downloaded from the web site. Other publications can be ordered. These web sites usually contain many additional features of interest. This is not a complete list and we apologize for omissions. Fax numbers and postal addresses are also indicated for most sites.

ADVOCACY

A few representative agencies are mentioned, among the many fine advocacy organizations found in every country and region. Agencies cited have ongoing advocacy for accessible transportation.

www.dpiap.org

Disabled Peoples' International: Asia Pacific Office
Promotes accessible transport and pedestrian ways in the region.

Fax: (66-2) 984-1007
E-mail: rdo@dpiap.org
Postal address:
325 Bondstreet Road, Muangthong Thani
Bangpood, Pakkred
Nonthaburi 11120
Thailand

www.rumbos.org.ar

Fundación Rumbos (in Spanish)

Lo Urbano y lo Humano: Hábitat y Discapacidad. This multi-level introduction to the theory and practice of inclusive design can be ordered from this site.

Fax: (54-11) 4706-2769
Postal: Cabildo 2720 – 5 y 6 D
Buenos Aires 1428
Argentina

www.handicap-international.org

Handicap International: South Asia Regional Office
Promotes accessible transport in south Asia

Fax: (91-11) 2465-8093
E-mail: hisarorc@vsnl.net
Postal: K-3 South Extension Part 1
P.O. Box 3837, Andrews Ganj
New Delhi 110 049
India

www.itdp.org

Institute for Transportation and Development Policy.
Advocates for sustainable transport policies including non-motorized transit and accessible bus rapid transit.

Publishes the periodical *Sustainable Transport*.

Fax: 1 (212) 629-8033
Postal: 115 West 30th Street, Suite 1205
New York, NY 10001
USA

www.independentliving.org

Institute on Independent Living (Sweden). Go to this site to download English and Spanish versions of *Mobility for All: Accessible Transportation Around the World*,* AEI's guide to making transportation accessible for persons with disabilities and elders in countries around the world.

www.iidisability.org

Inter-American Institute on Disability (in English, Spanish, and Portuguese)

Fax: 1 (301) 838-3029
Postal: 711 Brent Rd.,
Rockville, Maryland 20850
USA

www.libreacceso.org

Libre Acceso (Mexico)

Helpful information on accessibility audits in Spanish*

www.miusa.org

Mobility International USA. Leadership training, international exchanges. MIUSA may be contacted to order

Building an Inclusive Development Community: A Manual on Including People with Disabilities in International Development.

Fax: 1 (541) 343-6812
Postal: P.O. Box 10767,
Eugene, Oregon 97440
USA

openword@sepia.ocn.ne.jp

Open World/SATH

For information on advocacy of accessible transport in southeast Asia, contact Walter Spillum

Fax: (81-4) 2644-9566
Postal: 4-10-16-103 Myojin-cho
Hachioji-shi
Tokyo 192-0046
Japan

psreddy@rnd.bhel.co.in

Society for Equal Opportunities for Persons with Disabilities

Promotes accessible transport in state of Andhra Pradesh

Postal: 1-4-879/60, SBI Officers Colony
Gandhi nagar
Hyderabad 500 080
India

www.disabledpersonspenang.org

Society of Disabled Persons of Penang. Chinese and Malay versions of AEI's *Mobility for All: Accessible Transportation Around the World*, may be ordered without charge from this source.

Fax: (60-4) 228-1058
Postal: Kompleks Masyarakat Penyayang
CO-19-GF Jalan Utama
10450 Penang
Malaysia

www.geocities.com/sustranet

SUSTRAN: The Sustainable Transport Action Network for Asia and the Pacific

*Taking Steps: A Community Action Guide to People-Centred, Equitable and Sustainable Urban Transport** (in English)

See especially "What we can do," pages 78-85.

PLANNING

www.ncsu.edu

Center for Universal Design (North Carolina State University)

*The Principles of Universal Design**

Fax: 1 (919) 515-3023
Postal: Box 8613
219 Oberlin Road
Raleigh, North Carolina 27695-8613
USA

www.fta.dot.gov/ntl/planning

Federal Transit Administration (USA)

*Planning Guidelines for Coordinated State and Local Specialized Transportation Services** A good list of planning elements is found in Chapter 5.

www.rpd.es

Real Patronato

Guía para la Redacción de un Plan Municipal de Accesibilidad (An excellent guide to the preparation of

a municipal access plan, with a chapter on transportation planning, in Spanish)

Fax: (34-1) 914-115-502
Postal: Calle Serrano, 140
Madrid 2
Spain

www.tc.gc.ca/tdc

Transportation Development Centre

Publications on accessible transportation include:

Making Transportation Accessible: A Canadian Planning Guide

Access to Transport Systems and Services: An International Review (in English and French versions)

Improving Transportation Information: Design Guidelines for Making Travel Accessible

Fax: 1 (514) 283-7158
Postal: 800 René Lévesque Blvd. W., Suite 600
Montréal, Québec H3B 1X9
Canada

www.vtppi.org

Victoria Transport Policy Institute

*Transport Demand Management Encyclopedia**, with sections of special interest on universal design and TDM in developing countries.

Fax: 1 (250) 360-1560
Postal: 1250 Rudlin Street
Victoria, BC V8V 3R7
Canada

IMPLEMENTATION OF ACCESSIBLE TRANSPORTATION, FACILITIES, AND PEDESTRIAN WAYS

www.globalride-sf.org

Access Exchange International

*Enhanced Accessibility for People with Disabilities in Urban Areas** (inception report of an international transport access project focusing on Africa, Asia, and Latin America, sponsored by the UK's Department for International Development)

Mobility for All: Accessible Transportation Around the World (contact AEI for a complimentary printed copy in English or Spanish. See elsewhere in this section for electronic and translated versions.)

Fax: 1 (415) 661-1543
Postal: 112 San Pablo Avenue
San Francisco, California 94127
USA

www.trans.gov.ab.ca/Content/doctype369/production/pedaccdesignng.pdf

Alberta Transportation and Utilities

Design Guidelines for Pedestrian Accessibility,* including bus stop design diagrams

Fax: 1 (403) 427-0783

Postal: 4999 – 98th Avenue

Edmonton, Alberta T6B 2X3

Canada

www.access-board.gov

Americans with Disabilities Act

*ADA Accessibility Guidelines** (pedestrian ways, facilities, transport vehicles) This is the standard USA regulation.

Fax: 1 (202) 272-5447

Postal: 1331 "F" Street, NW, Suite 1000

Washington, DC 20004

USA

www.un.org/esa/socdev/enable/guiadd/aprod-dis.htm

APRODDIS (Asociación pro Desarrollo de la Persona con Discapacidad, in Spanish)

*Manual de Diseño de Lugares Accesibles** (an illustrated manual on access audits and accessible design, in Spanish)

Fax: (51-1) 225-7945

Postal: Calle 1, # 689

Urb. Córpac, San Isidro

Lima 27

Peru



Villagers built their own accessible platform at this site in rural Mexico Photo by David Werner

www.coliac.cnt.fr

Comité de liaison pour l'accessibilité des Transports et du Cadre Bati (COLIAC) (a primary resource in French)

E-mail: christiane.izel@cnt.fr

Fax: (33-1) 5323-8580

Postal: 34, Avenue Marceau

75008 Paris

France

cventer@csir.co.za

CSIR Transportek

Contact Dr. Christo Venter for reports on accessible transport demonstration projects in southern Africa and India.

Fax: (27-12) 841-4054

Postal: P.O. Box 395

Pretoria 0001

South Africa

www.mobility-unit.dft.gov.uk

Department for Transportation: Mobility and Inclusion Unit Publications from this major UK source include:

*Guidance on the Use of Tactile Paving Surface**

*Accessibility specifications for Rail, Bus, and Taxi vehicles**

*Inclusive Mobility: A Guide to Best Practice on Access to Pedestrian and Transport Infrastructure**

Fax: (44-207) 944-6102

Postal: Zone 1/18

76 Marsham Street

London SW1P 4DR

United Kingdom

www.easrs.org

Environmental Access Advisory Service (Hong Kong)

With helpful links to resources in Chinese and English on accessible public transportation modes in Hong Kong. This link is included as an interesting model for other cities.

www.oecd.org/CEM/pub/pubfree.htm

European Conference of Ministers of Transport

Improving Transport for People with Mobility Handicaps: A Guide to Good Practice (free of charge)

Transport and Ageing of the Population

Fax: (33-1) 4524-9742

Postal: 2, rue André Pascal

75775 Paris, Cedex 16

France

www.unit.org.uy

Instituto Uruguayo de Normas Técnicas

Developing access norms for Latin America region
Curso básico sobre Accesibilidad al Medio Físico (in Spanish)

Fax: (598-2) 600-3572

Postal: Coordinador, CT143 COPANT

Plaza Independencia 812

11100 Montevideo

Uruguay

www.iadb.org/pub

Inter-American Development Bank

To order *Facilitando o Transporte para Todos* (in Portuguese, including a translation of AEI's *Mobility for All: Accessible Transportation Around the World*), or to order *Facilitando el Transporte para Todos* (Spanish version)

Fax: 1 (202) 623-1709

Postal: IDB Bookstore

1300 New York Avenue, NW

Washington, DC 20577

USA

www.icat-ciat.org

International Centre for Accessible Transportation
(in English and French, promoting universally accessible transportation systems)

Fax: 1 (514) 396-3378

Postal: 425, Viger Avenue West, Suite 520

Montréal, Québec H2Z 1X2

Canada

101326.2263@compuserve.com

Dr. C G B Mitchell

Advice on best practices and standards, presentations and workshops on accessible transport.

Fax: (44-1252) 815-920

Postal: 17 Tavistock Road

Fleet, Hampshire GU13 8EH

United Kingdom

www.un.org/esa/socdev/enable/designm

United Nations Division for Social Policy and Development

*A Design Manual for a Barrier Free Environment**
(English)

www.unescap.org/decade

United Nations Economic and Social Commission for the Asia Pacific Region Among several relevant publications:

*Promotion of Non-Handicapping Physical Environment for Disabled Persons: Guidelines**

Fax: (66-2) 288-1030

Postal: Rajdamnern Avenue

Bangkok 10200

Thailand

www.worldbank.org/sp

World Bank (go to "disability," then "documents on line," then "World Bank documents," then the icons for the respective documents)

*Mobility for the Disabled Poor** (prepared by AEI)

*Transport, Poverty, and Disability in Developing Countries**

Publications concerning specific transport modes

www.dptac.gov.uk/pubs/smallbus2001

Disabled Persons Transport Advisory Committee
(UK)

*Accessibility Specifications for Small Buses designed to carry 9 to 22 passengers (inclusive)**

www.cordis.lu/cost-transport/home.htm

Office of Official Publications of the European Community (Luxembourg)

*COST 322: Low Floor Buses**

*COST 335: Passengers' Accessibility of Heavy Rail Systems**

NATIONAL AND INTERNATIONAL ASSOCIATIONS OF TRANSPORT PROVIDERS

(materials on accessible transportation are often available at these sites or their links)

www.apta.com

American Public Transportation Association

www.CommunityTransport.com

Community Transport Association (United Kingdom)

www.ctaa.org

Community Transportation Association of America

www.uitp.com

International Association of Public Transport
(France)

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Fax: 1 (415) 661-1543
E-mail: *globalride-sf@att.net*
Web: *www.globalride-sf.org*

About AEI

Access Exchange International assists stakeholders in Asia, Africa, the Americas and elsewhere as they promote, plan, and implement accessible bus, rail, and other transport for seniors and passengers with disabilities. Assistance is provided through publications and the provision of introductory or specialized workshops on all aspects of accessible transport. AEI also provides focused consultation and services to meet specific needs of stakeholders and development agencies concerning accessible transport in Latin America, Asia, and Africa.

Reproduction and translation of this document is encouraged. Please credit Access Exchange International. Translators are encouraged to contact AEI for possible updates to contents.

Contact AEI for copies of this guide.

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New York, New York 10115, USA
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Fax: 1 (212) 870-3624



PROMOTING and PLANNING TRANSPORT FOR ALL

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Exchange
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