Accessible transport for inclusive development: Focus on persons with disabilities

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Why does Inclusive and Accessible Transport matter?

- Transportation is vital for independent living and for accessing economic resources, opportunities and activities.

- Exclusion increases the costs associated with disability and people who are denied access to essential transport services face greater challenges to stay out of the poverty cycle.

- Inclusive transport not generally given significant focus in transport planning, design, construction and implementation in developing countries.
What is disability?

- The Convention does *not* explicitly define disability.
- Preamble of Convention states:
  - ‘Disability is an **evolving** concept, and that disability results from the **interaction** between persons with impairments and attitudinal and environmental barriers that hinders full and effective participation in society on an equal basis with others’
- Article 1 of the Convention states:
  - ‘Persons with disabilities **include** those who have long-term physical, mental, intellectual or sensory impairments which in interaction with various barriers may hinder their full and effective participation in society on an equal basis with others’.
Heterogeneity of disability

Examples of proportion of disabled people with different types of impairment

<table>
<thead>
<tr>
<th>Area</th>
<th>Vision</th>
<th>Hearing/Speech</th>
<th>Physical</th>
<th>Cognitive</th>
<th>Other (incl. Multiple)</th>
</tr>
</thead>
<tbody>
<tr>
<td>South Africa (1996)</td>
<td>41%</td>
<td>15%</td>
<td>21%</td>
<td>7%</td>
<td>16%</td>
</tr>
<tr>
<td>India (1991)</td>
<td>23%</td>
<td>26%</td>
<td>51%</td>
<td>--</td>
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</tr>
<tr>
<td>Mexico (2000)</td>
<td>29%</td>
<td>21%</td>
<td>45%</td>
<td>15%</td>
<td>1%</td>
</tr>
<tr>
<td>Malawi (1983)</td>
<td>21%</td>
<td>13%</td>
<td>18%</td>
<td>9%</td>
<td>39%</td>
</tr>
<tr>
<td>Latin America*</td>
<td>27%</td>
<td>20%</td>
<td>29%</td>
<td>14%</td>
<td>--</td>
</tr>
</tbody>
</table>

* Averaged over 9 countries

Source: DFID, 2004
Disability results from an interaction between a non-inclusive society and individuals:

- Person using a wheelchair might have difficulties gaining employment not because of the wheelchair, but because there are environmental barriers such as inaccessible buses or staircases which impede access.
- Person with extreme near-sightedness who does not have access to corrective lenses may not be able to perform daily tasks. This same person with prescription eyeglasses would be able to perform all tasks without problems.
The UN Convention on the Rights of Persons with Disabilities

- Adoption by the United Nations General Assembly - 13 December 2006
- Opened for signature - 30 March 2007
- Entry into force – 3 May 2008 → international benchmark and binding Human Right treaty
- The Convention sets out the legal obligations on States to promote and protect the rights of persons with disabilities. It does not create new rights.
- Art. 32 ‘international cooperation’
UN Convention applies to Urban and Transport Environment

- **Accessibility**: Guiding principle of the Convention (article 4) and relevant for all areas of implementation

- **Physical environment**: Measures should be undertaken to eliminate obstacles and barriers to indoor and outdoor facilities, including schools, medical facilities and workplaces (article 9 (1) (a)).

- **Public facilities & buildings**: Governments should set an example in ensuring full participation in society for persons with disabilities by developing guidelines to make public facilities and services accessible (article 9 (2) (a));
The role of Countries

- Countries that have a **domestic accessibility code/standard**
- 145 Countries that have **signed** the Convention
- 87 Countries that have also **ratified** the Convention
Relevance for the WB agenda

- 10-12% of the world’s population has moderate to severe disability (or about 700-800 million), affecting up to 20-25% of households

- Severe negative impact on developing countries
  - 80% of disabled people live in developing countries
  - 80-90% of persons with disabilities of working age persons are unemployed
  - 1/3 of primary school aged children not in schools due to disabilities or are looking after family members with disabilities

- MDGs will not be achieved without inclusion of persons with disabilities

- Business opportunity or reputational risk
Barriers to accessibility in developing countries

- Disabled people constrained by poorly accessible transport systems (infrastructure; vehicle design; information; social and psychological)
- Inadequate monitoring and enforcement of existing legislation
- Lack or limited resources for implementation, particularly for applying disability standards and solutions of high-income economies
Meeting service demands in developing countries

- Systemic barriers in the pedestrian environment; physical infrastructure and transport services
  - Lack of/ or inaccessibility of sidewalks
  - Inaccessible and unsafe road
  - Inadequate road crossings; bus stops facilities
  - Lack of or irregularity of transport services

- Characteristics of sector: walking as main mode of transport; importance of informal services and Non-Motorized forms of Transport
Criteria for inclusive transportation and accessible transport

- Access to fixed facilities and infrastructure
- Access to vehicles
- Public information
- Awareness training

→ Components of accessible trip chain
Continuum of interventions for making transport accessible that benefits all

<table>
<thead>
<tr>
<th>Infrastructure</th>
<th>Women (~50%pop)</th>
<th>Children (~25-50%pop)</th>
<th>Elderly (~10-25%pop)</th>
<th>Disabled (~10-12%pop)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Footbridges</td>
<td>Adequate clear width and height; railings; ramps</td>
<td></td>
<td></td>
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<tr>
<td>Sidewalks/curbs</td>
<td>Elimination of obstacles; ramps and adequate gradients; tactile markings; signboards and signs with accessible pedestrian signals (APS); adequate lighting; longer settings for street crossing</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Train/bus stations</td>
<td>Platform and train gap elimination; adequate lighting; warning &amp; signs of possible dangers</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vehicles (buses, trains, private)</td>
<td>Low steps; hand grasps; good information display of destination; keeping vehicle stationary longer; priority seating</td>
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Balancing costs and priorities within local contexts

<table>
<thead>
<tr>
<th>Anticipated cost</th>
<th>Typical intervention</th>
<th>Probable priority</th>
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</thead>
<tbody>
<tr>
<td>None</td>
<td>Visual contrast; color coding; clear/intuitive signs</td>
<td>ESSENTIAL</td>
</tr>
<tr>
<td>Low</td>
<td>Basic sidewalk, curb cuts and crossings design; hazard markings, minimize steps and other hazards</td>
<td>ESSENTIAL</td>
</tr>
<tr>
<td>Low</td>
<td>User awareness; priority seating; additional training for operational staff; tactile surfaces; kerb inserts</td>
<td>VERY HIGH</td>
</tr>
<tr>
<td>Medium to High</td>
<td>Raised pedestrian crossings; raised boarding platforms or low-floor vehicles; general training for operational staff</td>
<td>HIGH</td>
</tr>
<tr>
<td>High</td>
<td>Elevators; illuminated and audible signals; wheelchair location; special transport services</td>
<td>HIGH</td>
</tr>
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</table>
World Bank Transport sector role

- Three key transport sector strategy documents for adopting the UN Convention principles for accessible environments and inclusive mobility
  - Poverty Reduction Sourcebook 2002
  - Cities on the Move 2001

- Three key sector documents produced:
  - “Transport Strategy to improve accessibility in developing countries”
  - “Bus Rapid Transit Accessibility Guidelines”
  - “Inclusive Access and Mobility in Developing Countries”

- Consulting and working with stakeholders on opportunities to make transport accessible
  (Ex: Stakeholder meetings with Vietnam association for the Handicapped for Hanoi Urban transport project; International Conference on Disability, TRANSED).

- Technical assistance during project design of bus, rail, taxi and other
Examples of Bank operations

Pedestrian environment

Urban Project - Liaoning Province, China (cities of Benxi, Panjin, Liaoyang, Dengta, Benxi)

- Participatory: focus group discussions; open meeting; field testing
- Identified issues: curb cuts; safety island; textured pavement lanes; pedestrian street crossing; damaged sidewalk and pavement
Examples of Bank operations (Cont.)

**Transport systems and vehicles**

- **Bus Rapid Transit Systems (BRTs)** in Brazil, Columbia, Ecuador, Mexico, Chile, Indonesia, Tanzania and China

- Bus way corridors on segregated lanes, with modernized technology and locally-determined options (specific ramp and station design, fare collection, vehicle configuration, road treatment, station access and signage)
Bus Rapid Transit Systems (Cont.)

- **Access to stations**: use of low-floor vehicles aligned with the height of station platforms; gentle ramps; precision docking
- **Payment**: Fare cards for passengers with special needs; accessible turnstile;
- **Traveler information**: for passengers with vision and hearing disabilities
- **Vehicle interior configuration**: Non-skid flooring; priority seating; contrasting color; handrail
Training for operators and transit staff

Transit Access Training Toolkit: pocket-size guides for bus and taxi drivers, posters, public service announcements for TV or radio stations, and instructions on how to sponsor a disability awareness event.

“Avoid sudden stops”
Gaps in knowledge and research agenda

- Guidelines and technical standards exist but limited review of good practice, particularly in low-resource settings
- Lack of conclusive research on the socio-economic benefits of accessibility is barrier to implementation
- Lack of data and audits on access and mobility needs hinders effective response to implement solution and measure impact
- Limited research and understanding of trip chain requirements result in partially accessible transport systems and poor local service delivery
- Special events and tourist attractions can be used as catalysts to improve accessible transport systems and vehicles
Resources

- Worldbank Disability & Development Team: “disabilitytoolkit” ➔ Accessibility