



# Malaysian Perspective on the Development of Accessible Design

Hazreena Hussein, Naziaty Mohd Yaacob

Faculty of Built Environment, Department of Architecture,  
University of Malaya, Kuala Lumpur 50603 Malaysia

reenalambina@um.edu.my

## Abstract

Malaysia has been actively providing accessibility in the built environment since the country signed the 'Proclamation on the Full Participation and Equality of People with Disabilities in the Asia-Pacific Region' in 1994. However, Malaysia has limitations in enforcing legislation pertaining to accessibility. One of the concerns was the local authorities' role in having their own mechanisms to create an accessible built environment. The objective is to highlight the gaps in Malaysia's regulations and to illustrate the research development of the Accessible Design infrastructure for disabled people. The outcome will describe Malaysia's experience in Accessible Design.

Keywords: Accessibility; Barrier free; Built environment; Legislation; Transportation.

*eISSN 2514-751X © 2018. The Authors. Published for AMER ABRA cE-Bs by e-International Publishing House, Ltd., UK. This is an open-access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>). Peer-review under responsibility of AMER (Association of Malaysian Environment-Behaviour Researchers), ABRA (Association of Behavioural Researchers on Asians) and cE-Bs (Centre for Environment-Behaviour Studies), Faculty of Architecture, Planning & Surveying, Universiti Teknologi MARA, Malaysia.*  
<https://doi.org/10.21834/aje-bs.v3i8.287>

## 1.0 Introduction

Throughout Malaysia's history, the nation building model has been mostly a top-down approach, with the Government establishing policies while initiating development that the private sectors would follow suit. The introduction of the Law of Malaysia, Act 658, Persons with Disabilities Act in 2008 indicates a move forward in the right direction to empower Persons with Disabilities (PWD). Interpretations were made of concepts such as Universal Design\* reflecting a more global perspective of issues that hinders PWD full participation in society (PWD Act Malaysia, 2008:7).

In 2006, the Malaysian Government support on the rights of PWD in the meeting of the National Council on Local Government. The Prime Minister of Malaysia, Dato' Sri Mohd Najib Bin Tun Haji Abdul Razak supported, 'apart from new buildings, existing buildings and public amenities, the local authorities would provide guidelines to make these places friendly to PWD to cater for their needs' (Malaysian Information Network on Disabilities, 2010).

Any issues regarding PWD are under the Department of Social Welfare Malaysia (DSWM), Ministry of Women, Family and Community Development (MWFC) since 1947. The British established the Department of Community Welfare, Malaya from 1946 and the DSWM started in 1964 after the Independence from the British (JKM, 2011). The former MWFC who acts as the Chairman of the National Council for PWD, has spoken on the fundamental right of PWD and reference were made to 'increase the number of public transport users to 25% by end of 2012 from the present 16%' (Star Online, 2009). However, the non-governmental organizations are concerned that 'the government have yet to set up a main body to deal with public transportation' (Star Online, 2009a). The Government then countered the skepticism by establishing The Land Public Transport Commission (SPAD)<sup>1</sup> to 'propose policies in relation to land public transport' (UNDP, 2010).

With the establishment of the Department of Standards Malaysia (DSM) under the Ministry of Science, Technology and Innovation, there is a shift in priorities, where DSM is 'mandated by the Government of Malaysia to function as the National Standards Body as well as the National Accreditation Body through the Standards of Malaysia Act 1996 (Act 549)' and it sets out The National Standards and Strategy Plan approved by the Cabinet in 13 October 2004 (DSM, 2012).

## 2.0 Accessible Design in Malaysia

The study focuses on Accessible Design of Built Environments and Transportation for

\* Universal Design means the design of products, environments, programmes and services to be usable by all people, to the greatest extent possible, without the need for adaptation or specialized design and shall include assistive devices for particular groups of PWD where this is needed (PWD Act Malaysia, 2008:2).

<sup>1</sup> The Land Public Transport Commission (SPAD) was officially established on 3 June 2010 following the passing of the Suruhanjaya Pengangkutan Awam Darat (SPAD) Act 2010 by Parliament in May 2010. The Commission gained its full powers on 31 January 2011 with the gazetting of the Land Public Transport Act 2010. SPAD, which comes directly under the purview of the Prime Minister, brings the functions of drawing up policies, planning and regulating all aspects of train, bus and taxi services as well as road- and rail-based freight transport under one roof.

PWD in Malaysia. Most of the secondary data was taken from reports and presentations made by government agencies and local universities, with observations made by the authors as well as newspaper articles.

### Demographic Data

Malaysia's population is 27.6 million people, based on the preliminary count of the national census done in 2010. Malaysian age expectancy male and female is at 72.5 years and 76.5 years, respectively.

### PWD Demographics

The number of PWD registered with the DSWM is 1.16% of the population as of August 2010. As registration is voluntary, the World Health Organization estimates that 5 - 10% is the truer percentage, which confirmed that 2.7% of population is PWD (Department of PWD, Malaysia, 2010). The percentage of people with learning disabilities is the highest at 38.4%, whereby persons with physical disabilities account for 34.7% of the total (see Table 1).

Table 1: Breakdown of Different Categories of PWD Registered in August 2010  
(Department of PWD, DSWM)

Type of disability	Number
Learning	120,414
Physical	108,952
Hard of hearing and deaf	39,814
Sensory	27,821
Mental	3,295
Speech	249
Others	13,140
TOTAL	313,685

### PWD Background

PWD include those who have long term physical, mental, intellectual or sensory impairments, which in interaction with various barriers may hinder their full participation in society. The benefits of registered PWD include medical benefits, rehabilitation services, vocational training, academic education, financial assistance, support equipment and job opportunities (JKM, 2011).

The Government had, in 1981, expanded double tax relief to employers employing workers with disability and, in 1991; the Government had provided further exemption to parents who have children with disability who are below 18 years old. Tax rebates are also given to tax payers who bought special equipment for their own use and for their children or parents with disability (JKM, 2011a). As a continuous incentive to care for PWD and in addition to MYR 5,000 and MYR 3,000 in personal and wife tax relief, respectively, the Government has approved a further tax relief of MYR 5,000 to tax payer with disability and MYR 2,500 to the spouse beginning from 1995 (JKM, 2011a). Policies that the Government has established are as follows (Noraini, 2010):

- 1) National Welfare Policy (1990)
- 2) National Social Policy (2003)
- 3) National Policy for PWD (2007)
- 4) National Plan of Action for PWD (2007-2012)
- 5) Service Circular No. 3 of 2008: Implementation of 1% Policy on Employment Opportunities for PWD in the Public Sector

### **3.0 Accessible Design of Built Environment**

'Accessible design extends standard design to people with mobility limitation. Its purpose is to maximize the number of people who can readily use a product, building or service. This can be achieved either by designing products, services and environments that are readily usable by most users without any modification, or by means of standardized interfaces compatible with special products for PWD' (Fadilah, 2008).

'The current legislation is not enough for local authorities to monitor whether the built environment industry comply with minimum standards for accessibility for PWD in Malaysia. The local authority must strive harder to create its own mechanisms to create an accessible environment based on Universal Design values' (Ch'ng, 2010). This is evident that the government has focused on the role of local authorities to spearhead the motivation for a more accessible Malaysia. A proposal paper to upgrade services of PWD for an accessible environment was tabled by the Minister concerned to the National Council for Local Government in order to address local authorities to implement the laws, especially the Uniform Building By Law 34A (UBBL 34A).

#### **State Policy**

The National Policy for PWD espouses equal rights to full participation in society for PWD. It recognizes the dignity, respect and liberty to enable them to live independently. This includes accessibility within and without buildings, places of employment, housing estates and public areas. These policies are guided to implementation by the National Plan of Action for PWD.

#### **Legal Regulations**

The PWD Act came into force in 2008 that recognizes 'the importance of accessibility to the physical, social, economic, cultural environment, health, education as well as to information and communication, in enabling PWD to fully participate in society'. In Section 26, it specifically stated that 'PWD shall have the right to access to and use of, public facilities, amenities, services and buildings open or provided to the public on equal basis with persons without disabilities'. The legislation referred to when dealing with the built environment are as follows:

- 1) Streets, Building and Drainage 1974 (Act 133)
- 2) Uniform Building By Laws 1984
- 3) Town and Country Planning Act 1976 (Act 172) and Town and Country Planning Act

(Amendment) 1995 (Act A 33).

The Street, Drainage and Building Act 1974 was amended in 1991 to include By-Law 34A of the UBBL 34A. This by-law was gazetted by the state governments between 1992 and 1996. It requires new buildings must have access for PWD and building already constructed or under construction when this by-law came into force have to comply with the requirements of Malaysian Standard MS1183 and MS 1184 within 3 years. However, compliance to MS 1331: Code of Practice for Access of PWD Outside Buildings is not required under this by-law. Currently a revision exercise commenced in 2010 to merge MS 1184 and MS 1331 into one new standard which will be available in 2013.

### Standardisation

There are three codes of practices on access to built environment for PWD, namely:

- 1) MS 1183: Part 8: 1990: Specifications for Fire Precautions in the Design and Construction of Buildings Part 8: Code of Practice for Means of Escape for PWD.
- 2) MS 1184: Code of Practice for Access for PWD to Buildings.
- 3) MS 1331: Code of Practice for Access of PWD Outside Buildings

### Industry Efforts

Government buildings and housing areas are built with or have been retrofitted with accessible features such as ramps and lifts (see Figures 1-4).



Figure 1: Wheelchair User Accessing Counter



Figure 2: Elevator Buttons for Wheelchair Users



Figure 3: Ramp into a Building at a Low Cost Housing



Figure 4: An Intallation of a Hydraulic Lift

### **Research and Development**

Kuala Lumpur City Hall (KLCH) has created a Standards and Innovation Department, which deals exclusively on Disability. Likewise, the Building and Architecture Department of the Ampang Jaya Municipal Council in the state of Selangor issued the Guideline on the Submission of Plans that requires the inclusion accessible facilities.

A draft of training modules is being prepared by the National Council of PWD on access audit from surveys to provide better skills at understanding the built environment issues.

Local universities are involved in accessible tourism, accessible heritage buildings and transportation buildings. Research on way-finding for those with visual impairments including landscape design with sensory features is also on-going.

### **4.0 Accessible Design of Transportation**

The current public transportation system in Malaysia is still not accessible for PWD. Efforts to improve this area of accessibility thus far have been piecemeal but the MWFCDD has increasingly initiated discussions with public transportation operators, as well as sending a memorandum to the Cabinet Ministers to urge the Government to take effective actions to ameliorate the transportation problems (JKM, 2010). Report by the Department of PWD stated that the Malaysian Railways and Light Rail Transit (LRT) are upgrading their stations

with accessible facilities and providing concession fare up to 50% for all destinations, the Ministry of Transportation is producing guidelines for accessible buses and air travels is providing wheelchair services assistance free of charge and reduced fare up to 50% for domestic flights (Noraini, 2010).

### **State Policy**

The National Policy for PWD seeks to 'improve the provision of public transport for PWD'. On 8 April 2008, Malaysia signed the Convention the Rights of PWD and ratified the Convention on 19 July, 2010. In the Convention, it stated that 'PWD have a fundamental right to public transportation and this has legal basis in the PWD Act 2008'. They 'shall have the right to access to and use of public transport facilities, amenities and services' and providers of these facilities must ensure that they 'conform to universal design' [UNDP, 2010 [Article 27 (1 & 2)]. Malaysia also has obligations under the Biwako Millennium Framework whose goal is to promote an inclusive, barrier-free and rights based society as well as to ensure that State Parties take appropriate measures.

### **Legal Regulations**

Section 27 of the PWD Act (2008, Part IV) stated that 'PWD shall have the right to access to and use of public transport facilities, amenities and services open or provided to the public on equal basis with persons without disabilities'. However, there is no specific legislation pertaining to the accessible design of transportation.

### **Standardisation**

There is no code of practice on accessible design of transportation. The Road Transport Department together with RapidKL and organizations of PWD are currently drawing up a draft on accessible facilities for the stage buses, the design that will be incorporated into 400 buses to be put on the road in phases in 2012.

### **Industry Efforts**

RapidKL, the main transportation provider in Kuala Lumpur and Klang Valley has established Rapid Mobility, which are vans fitted with accessible features covering the Petaling Jaya area giving door to door service for PWD. Each trip is charged a heavily subsidised fare of MYR 3.00 (US\$1.00) per trip (see Figure 5).



Figure 5: Mobility Vehicle for Wheelchair Users

The only fully accessible urban rail is the Kelana Jaya LRT Line, whilst stations for the Ampang LRT Line are currently being upgraded with lifts and other accessible facilities such as parking spaces and pedestrian crossing bridge (see Figures 6 and 7).



Figure6: PWD can obtain Concession Parking Passes with Discount with their Disability Identification Cards. Two Car Parks for PWD are available at all RapidKL Stations. Nonetheless, Frequent Abuse of these Car Parks must be addressed Quickly



Figure 7: This First Pedestrian Crossing Lift in Malaysia  
The implementation of the regulations is often flawed (see Figures 8 and 9).



Figure8: Platform Lift Installed at the Staircase Leading from Kuala Lumpur City Centre Petronas Twin Towers to the Train Concourse. The Platform Lift is Poorly Manned and Maintained for Operation. Improper Planning and Design is the Problem that Leads to this Inaccessibility  
(Source: Authors, 2011)





Figure 9: A Notice Instruction on a Typed Small Piece of Paper on How to Use the Platform Lift, Clearly Lacking in Contrast and Font Size to Read for PWD  
(Source: Authors, 2011)

### Research and Development

In 2008, the UNDP initiated the 'Transport for PWD: Support of the development of accessible transport in Penang'. The focus of this project is on activities to support the development of a fully accessible public transport as well as the establishment of a door-to-door transport service.

Local universities are researching behaviour studies of passengers including PWD, ergonomics and design of transportation vehicles.

### 5.0 Conclusion

The Government recognizes the need to create the built environment and public transportation that is accessible to all. It is now widely acknowledged that the demand from PWD is for facilities, which provide interest for variety of users, without creating barriers for those with special needs. Legislations, namely the PWD Act and UBBL 34A, provides such rights for the built environment. However, implementation and enforcement are lax. The issue of Accessible Design for Transportation is still in the infancy stage of planning, which is mostly solved by the industry in a piecemeal manner. It is also imperative to ensure linkage between accessible pedestrian walkways and public transport. With this in mind, there is an urgent need to incorporate the Malaysian Standard MS 1331 into the legislations. Among efforts done in understanding the basic needs of PWD are through consultancy for new and existing building projects, advisory in task forces and conducting disability awareness seminar. With leadership, professionals, governments and PWD as resource persons could put their heads together to solve problems in the local context. The gaps in policies, regulations, standards, industry efforts and research development of the Accessible Design infrastructure for PWD in Malaysia have been assessed in this paper. Areas that need improvement have been highlighted. Therefore, it is essential that Malaysians learn from the successes and failures of other countries whilst sharing its own experiences, so as to improve the country's situation in a shorter time frame.

## Acknowledgment

We would like to thank Ch'ng Gaik Bee @ Hajjah Dalilah Bee Abdullah of KLCH for her contribution for Figures 1-7.

## References

Ch'ng Gaik Bee (2010). *The Role of Local Authorities on Barrier-Free Built Environment*. Workshop on Access Audit Training for Access and Services of People with Disabilities at Kuala Lumpur Library 28-30 December 2010.

Department of People with Disabilities, Malaysia (2010). *Seminar on Building Accessibility and Public Services for People with Disabilities for Local Authorities* organised by Welfare Department, Labuan on 23 November 2010, at Cultural Centre, Layang-Layangan, Labuan.

Department of Standards Malaysia (2012). *History of the Department of Standards* (Accessed 29 August 2012).

Fadilah Baharin (2008). Opening Speech by the Director General of Standards Malaysia at the *Asian Network on Consumer's Participation in Standardisation (ANCO) Workshop*, 16 February 2008, Hilton Hotel, Petaling Jaya <http://www.standardsmalaysia.gov.my/v2/images2/strategic/Speech%20%20ANCO%20Workshop%2016%20Feb%202009.pdf> (Accessed 04/02/11).

JKM (2011). *Social Welfare Department of Malaysia: Services for older people*. [http://www.jkm.gov.my/index.php?option=com\\_content&view=article&id=65&Itemid=73&lang=en](http://www.jkm.gov.my/index.php?option=com_content&view=article&id=65&Itemid=73&lang=en) (Accessed 04/02/2011).

JKM (2011a). *Social Welfare Department of Malaysia: Issues on people with disabilities*. [http://www.jkm.gov.my/index.php?option=com\\_content&view=article&id=376%3Aisu-berkaitanoku&catid=46%3Aorang-kurang-upaya&Itemid=81&lang=en](http://www.jkm.gov.my/index.php?option=com_content&view=article&id=376%3Aisu-berkaitanoku&catid=46%3Aorang-kurang-upaya&Itemid=81&lang=en) (Accessed 04/02/2011).

Laws of Malaysia, Act 658, People with Disabilities Act Malaysia (2008) Part IV, *Promotion and Development of the Quality of Life and Wellbeing of Persons with Disabilities*. Percetakan Nasional Berhad, Kuala Lumpur.

Malaysian Information Network and Disabilities (2010). *Najib: Offer jobs to disabled*. 24 June 2007. (Originally source from News Straits Times Online) Accessed to MIND News - admin1 - 4 Aug 2010.

Noraini Hashim (2010). *The Role of the Department of Social Welfare Malaysia on The Development and Empowerment of People with Disabilities*. International Conference on Perspectives on Inclusive Development: Embracing Diversity and Creating Disability-Sensitive Communities organized by the Faculty of Social Sciences, University Malaysia Sarawak and the Research Institute of Health and Social Change, Manchester Metropolitan University (MMU), UK, on the 28- 29 July 2010 at Hotel Hilton, Kuching, Sarawak.

Star Online (2009). Published 28 July 2009, *Target sets of the Key Results Areas* <http://thestar.com.my/news/story.asp?file=/2009/7/28/nation/4404615&sec=nation> (Accessed 04/02/2011).

Star Online (2009a). Published 28 July 2009, *Set up single authority for public transport, govt urged* <http://thestar.com.my/news/story.asp?file=/2009/7/28/nation/4400251&sec=nation> (Accessed 04/02/2011).

UNDP (2010). *A Review of International Best Practice in Accessible Public Transportation for Persons with Disabilities*, June 2010, UNDP Malaysia, Kuala Lumpur.