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A universal design approach to addressing the inaccessibility and disrepair of the built environment in Sri Lanka

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Abstract

The combination of accessibility regulations, a rich architectural and cultural history, and recent civil war poses considerable challenges for remedying a damaged and run-down built environment. Sri Lanka has a commitment to removing barriers in the built environment for people with disability and as such has a set of robust regulations that are prescriptive and retrospective. However, drafting and translation errors have made it difficult to achieve these objectives. Consequently, there is a poor level of understanding and compliance with regulations leading to a seemingly intractable combination of difficulties.

A project funded through the aid program of the Australian Department of Foreign Affairs sought to overcome these difficulties through a training program. It was decided that a robust understanding of universal design principles would provide participants with different ways of thinking about the problems and solutions. Lessons from Australia were shared including whole-of-journey transport planning. Community and industry engagement was a central theme to taking more strategic and universal design approach to solving complex problems.

Keywords: ***universal design, distressed assets, access regulations, training program***

Introduction

The Sri Lankan Government has several legislative and policy commitments to ensure public facilities are accessible for people with disability. However, the effective implementation of these protections requires further support.

The Australian Human Rights Commission (AHRC) worked in partnership with the Human Rights Commission of Sri Lanka (HRCSL) to improve disability access in Sri Lanka, particularly regarding public environments and transport. The project commenced in 2016 as a short targeted funded initiative by the Australian Department of Foreign Affairs and Trade (DFAT), through its aid program.

Phase 1 of the project began with a scoping study and stakeholder consultations regarding the project objectives, together with training on disability access rights, legislation and policy, and the complaints handling functions of both the AHRC and HRCSL. Phase 2 of the project was to provide technical advice and training to technical staff and advocacy groups.

This paper relates to Stage 2 of the DFAT project which was to provide technical training and advice to improve outcomes for people with disability accessing public environments and public transport. The training was provided in Colombo over 3 days for delegates from across Sri Lanka.

More than 80 delegates attended the training. They comprised HRCSL staff and technical staff responsible for compliance with the regulations, including architects, engineers, town planners, transport operators and civil society organisations.

Historical background

The history of Sri Lanka provides some context to the project. Prior to European domination, the two main ethnic groups in Sri Lanka were the Sinhalese and the Tamils. These two cultures lived in separate areas mostly due to the geography of the country.

In 1502, the Portuguese arrived, monopolising the spice trade slowly taking over all but the Kandyan Kingdom in the central highlands. The Dutch were also keen to dominate the spice trade when they arrived in 1602. By 1658 they had forced out the Portuguese.

The British saw the strategic importance of Sri Lanka and after more than 150 years the Dutch ceded their control to British protection in 1796. The British gained full control of the island by 1815 when they conquered the Kingdom of Kandy. Tamil workers were brought from India by the British to work in their tea plantations and this is when cultures began mixing across wider geographic areas.

A strong nationalistic sentiment emerged last century and in 1948 Sri Lanka became fully independent. However, ethnic tensions between Sinhalese and Tamil peoples began to escalate in the 1950s and 1960s. Changes to laws began to favour Singhalese people and exclude the Hindu and Muslim Tamil-speaking population. Riots and general unrest continued throughout the 1970s and a massacre in 1983 led to the start of a civil war that continued until 2009 (BBC News, 2018; Lonely Planet, 2018).

The of the 26-year civil war prevented investment in the renewal and repair of the built environment and transport networks. Consequently, the urban infrastructure was left in disrepair and in

some cases abandoned and obsolete. These buildings, transport and urban infrastructure are referred to as distressed assets. This includes many of the heritage buildings that are of cultural importance (BBC News, 2018; Lonely Planet, 2018).

Transport

Public transport in Sri Lanka consists of trains, buses, tuk tuks, and to a lesser extent, private car taxi and internal flights. Pedestrian traffic is also considered a mode of transport, and this is reflected in Sri Lanka's accessibility regulations. Buildings associated with these modes of transport include stations, bus stops, taxi ranks, and airports. (Democratic Socialist Republic of Sri Lanka, 2006)

Bus and train fleets are from a time when user needs and accessibility were not considered. Buses typically have very high floors accessed by steep steps to the front and side of the vehicle and minimal space internally. Trains have more potential to create space, but floor levels are also high, compared to the platforms. In smaller towns and villages, many stations boarding platforms are absent and the distance between the train floor and the ground is greater.

Public domain

The public domain includes all public spaces and footpaths. In the cities and towns, there are extensive footpaths. In smaller towns and villages, footpaths, sealed or otherwise, are minimal.

Where accessible features are present, they are often inconsistent, or in isolation. For example, in Colombo tactile guiding blocks for people who are vision impaired are present at road crossing points along the Galle Face Green. This is in stark

contrast to the approaches to the Fort Railway Station which is in significant disrepair. Multiple trip hazards, uneven surfaces, steps, and narrow access ways create barriers for people with vision and mobility impairments. These environmental barriers also become barriers to education, employment and essential goods and services.

Public buildings

Public buildings, including transport related buildings, vary in the degree of accessibility they offer. However, there are multiple barriers to overcome because the public spaces were designed decades or centuries ago. Barriers include stepped entrances, unequal steps, lack of handrails, narrow or heavy doors, difficult to use hardware, lack of accessible sanitary facilities, steep ramps, incomplete or missing signage, poor or no lighting, high counters, narrow passageways, poor colour contrast and lack of tactile guiding blocks.

Barriers to inclusion

Substantial discrimination occurs within Sri Lankan society due to the access barriers posed by the distressed asset base. CBM Australia (2018) notes that 39 percent of people with disability have never attended school. The rates of unemployment are higher among people with disability as there is limited access to education and training.

The impact of civil war has resulted in higher rates of physical impairments and mental illness than would be expected in the general population. CBM Australia estimates that 27.6 percent of the population in the conflict areas in the North Eastern province experience severe post-traumatic stress. Landmines and

unexploded ordnance continue to cause injury and death with children accounting for 30 percent of the casualties.

Apart from physical barriers, CBM Australia states that people with disability typically face discrimination and stigma. Superstition about disability as a form of punishment for wrongdoing in a previous life exacerbates the discrimination and stigma.

The barriers to inclusion noted in Sri Lanka's National Policy on Disability are:

- ***Environmental and transport accessibility barriers***
- ***Communication barriers (sign language, Braille and access to telephone)***
- ***Cultural barriers (stigma and superstition)***
- ***Assistive devices (and lack of availability)***
- ***Societal and family expectations (negative view of helplessness) (Ministry of Social Welfare, 2003).***

Sri Lankan access regulations

The Sri Lankan Government key policy and legislative commitments for accessible public facilities for people with disability are:

- ***The Protection of the Rights of Persons with Disabilities Act, 1996, provides protection for people with disabilities against discrimination in employment, education, and access to the built environment (Democratic Socialist Republic of Sri Lanka, 2006).***
- ***The Disabled Persons (Accessibility) Regulations were introduced in 2006, with amendments made in 2009***

(Democratic Socialist Republic of Sri Lanka, 2006)(Democratic Socialist Republic of Sri Lanka, 2009).

- ***The United Nations Convention on the Rights of Persons with Disabilities (UNCRPD) was ratified in 2016 (United Nations, 2006).***

The intent of the accessibility regulations to achieve accessible environments is commendable. However, in practical terms, the regulations and regulatory process make this difficult to achieve and compliance levels are low.

The *Disabled Persons (Accessibility) Regulations* 2006, as amended, is the main source of regulatory minimum requirements. Their scope is far reaching covering building design elements, transport conveyances, transport buildings, and public footpaths and road crossings. The Regulations are prescriptive and provided in three languages, but there are minimal penalties for non-conforming design and construction.

Prescriptive regulations are easier to achieve for new construction, with minimal site constraints and to new transport conveyances. Applying prescriptive regulations to a diverse and distressed asset base is another matter – they are frequently difficult to achieve and require many adaptations.

The Regulations also include several conflicting clauses and diagrams, as well as incomplete diagrams and missing dimensions. In addition, errors occurred in the translation between each language version causing further confusion. A pragmatic, informed approach was required.

The challenge was to develop a training workshop to enable participants to work within the constraints of the regulations and the design of built infrastructure to mitigate as many of the

difficulties as possible. Practitioners also needed tools to understand user needs within the design process. A good starting point was the principles of universal design.

Applying universal design

Universal design was the ideal place to begin, not least because of its emphasis on users. The UNCRPD under article 2, defines universal design as:

> **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. "Universal design" shall not exclude assistive devices for particular groups of persons with disabilities where this is needed (United Nations, 2006).**

Building on this definition, it was emphasised that:

- ***Universal design is NOT another word for designing for people with disabilities because it is focused on all people.***
- ***"To the greatest extent possible" means that it is not a Utopian ideal, rather a practical, as well as conceptual approach.***
- ***The focus is on mainstream goods, services and environments; not on adapted or specialised.***
- ***Design is the emphasis.***

Participants were introduced to the basics of universal design and a general overview of diversity at the beginning of the workshop. This was followed by specific detail on disability to help participants understand why certain design features are important, and to dispel common myths and stereotypes about

disability. For example, a series of slides were shown to demonstrate different levels of vision impairment and how this affects what they can and cannot see. Similarly, for hearing impairment, a series of sound scenarios were played, to illustrate the effect of mild, moderate and severe hearing loss in different environments. The spatial requirements for wheelchair users and people with mobility difficulties were also explained.

Disability was discussed from a bodily impairment perspective so that participants gained a better understanding of the importance of design detail. The difference between the impairment or medical model of disability and the social model was explained and how the medical model creates attitudinal barriers. The importance of the social model was emphasised for creating equitable outcomes for people with disability.

Thinking about all users, not just people with disability encouraged participants to think in more holistic ways and to apply different perspectives to solving design challenges. Discussion about the design standards, the people who benefit, and how to mitigate site constraints for accessible outcomes most of the time provided a better understanding that designs for people with disability are good for everyone, and that universal design requires thought, not cost.

Strategy and prioritisation

It was clear from the brief time in Sri Lanka, was that the scale of the challenge could not be addressed overnight. Strategy and prioritisation would be crucial to achieve universal design outcomes. Further, adopting a universal design approach would allow maximum leverage for the available budget, contributing to sustainable and cost-effective outcomes.

Playing catch-up with investment also allows an opportunity to avoid mistakes and to learn from the journey travelled by other countries towards removing barriers in the built environment. A good example of this is Australian experience of implementing Disability Standards for Accessible Public Transport 2002 (Transport Standards).

The second review of the Transport Standards led to the recommendation of a 'Whole-of-Journey' approach. If a public transport system is to be accessible it needs to factor in all aspects of the journey from home and the return journey. This includes the decision to travel, planning the journey from beginning to end, transport stops and services, interchanges, service disruptions, and supporting infrastructure. Sharing lessons of this type enables participant to achieve outcomes more quickly without a lengthy learning process thereby minimising mistakes along the way (Commonwealth of Australia, 2002; 2017).

Workshop scenarios

To conclude the training, a series of scenarios were devised and divided between groups of participants. Each scenario involved addressing a challenge and identifying user groups, stakeholders, challenges, opportunities, prioritisation, and possible strategies to achieve equitable outcomes. Each group presented their ideas for broader discussion with the whole group. This process showed the importance of community and industry engagement and lively and thought provoking discussions ensued.

With an understanding of universal design participants were able to apply multiple perspectives and understanding to solve design problems and address the key issue of achieving accessibility of

distressed assets. Universal design can, and will, contribute to achieving sustainable and equitable outcomes for the built environment and transport services in Sri Lanka.

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