A Practitioner's Universal Design Approach Making a Difference to Distressed Assets in Sri Lanka

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Abstract. Prescriptive and retrospective accessibility regulations, a rich architectural and cultural history, recent civil war and a distressed asset base make for considerable challenges. This paper describes how universal design principles formed the foundation of technical training delivered to Sri Lankan professionals, to assist them comply with accessibility regulations, and their obligations under the United Nations Convention on Rights of Persons with Disabilities. The paper is based on work funded by the Australian Government's Department of Foreign Affairs and Trade and delivered by a delegation from the Australian Human Rights Commission. The training was based on 25 years' practitioner experience of applying universal design in the built environment. The commitment to removing barriers to the built environment for people with disabilities is evidenced by a set of robust regulations that are prescriptive and retrospective. Further, drafting and translation errors contribute to difficulty achieving these objectives and thus there is a poor level of understanding and compliance with accessibility regulations. This presented a seemingly intractable combination of difficulties. However, it was decided that providing the delegates with a robust understanding of universal design principles would allow them to navigate these difficulties by thinking about the problems differently, even if they could not achieve strict compliance. There were particular concerns about transport and the public realm. Lessons from Australia were shared including whole-of-journey transport planning and prioritisation methods such as principle pedestrian networks. Community and industry engagement were central themes to taking more strategic and universal design approach to solving complex problems.

Keywords. Sri Lanka, universal design, UNCRPD, distressed assets, culture, training

1. Introduction

The Sri Lankan government has made a number of legislative and policy commitments to ensure public facilities are accessible for people with disabilities. However, the effective implementation of these protections has remained an issue requiring 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

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commenced in 2016 as a short targeted funded initiative by the Australian Department of Foreign Affairs and Trade (DFAT), through its aid programme. Phase 1 of the project started 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 training.

The subject of this paper relates to Stage 2 of the DFAT project 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, to delegates from across Sri Lanka. Over 80 delegates attended the training and comprised HRCSL staff and technical staff responsible for compliance with the regulations, including architects, engineers, town planners, transport operators and civil society organisations.

2. Historical background

Sri Lanka has a rich cultural history. Prior to European domination, the two main ethnic groups were the Sinhalese and the Tamils. The geography of Sri Lanka meant that historically, the two cultures tended to live in separate areas of the country. In 1502, the Portuguese arrived, monopolising the spice trade and slowly taking over all but the Kandyan Kingdom in the central highlands. In 1602 the Dutch arrived, also keen to dominate the spice trade, and by 1658, the Dutch had forced out the Portuguese. After over a century and a half of rule, the British eyed the strategic importance of Sri Lanka. The Dutch ceded to British protection in 1796 when France took over the Netherlands, following which the British worked towards full control of the island by 1815, when they conquered the Kingdom of Kandy. The British settled, placed emphasis on tea production and brought Tamil workers from India to work in the tea plantations. Cultures mixed across wider geographic areas. The cultural heritage of Sri Lanka can be seen in the rich and varied architecture, with much of the built environment being of heritage or cultural importance. [1][2].

The twentieth century saw the emergence of a strong Nationalistic sentiment among Sri Lankans and in 1948 Sri Lanka became fully independent. However, in the 1950's and 1960's, ethnic tensions between Sinhalese and Tamil peoples escalated with various changes to laws favouring Sinhalese people and excluding Hindus and Muslim Tamil-speaking population. Riots and general unrest continued through the 1970's. A reprisal massacre in 1983 led to the start of a civil war that would continue until 2009 [1][2].

The effect of 26-year civil war undoubtedly affected investment. The consequence can be seen in the range of distressed assets across transport networks and conveyances and throughout the built environment.

3. Distressed assets

In the context of this paper, the term 'distressed assets' relates to assets that have not been subject to normal cycles of investment, renewal, or repair. The consequence of which is disrepair, lack of renewal and obsolescence. This relates to built assets such as buildings, urban environments; and transport infrastructure and conveyances.

3.1. Transport

Modes of public transport include 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, airports [3].

The bus and train fleets are from a time when user needs and accessibility were not a key consideration. 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 do not have a platform and the distance between the train floor and the ground is much higher.

3.2. Public realm

The public realm includes all public spaces and footpaths. In the cities and towns, there are extensive footpaths. In smaller towns and villages, there may be no 'sealed' footpath, or minimal footpaths.

Where accessible features are provided, they are often inconsistent, or in isolation. In Colombo, for example, there are examples of extensive use of guiding blocks (TGSIs) and road crossing points along the Galle Face Green. This is in stark contrast to the area and approaches to Fort Railway Station which is in significant disrepair. The extent of disrepair creates challenges for people with vision impairment from multiple trip hazards, indistinct edges, indistinct hazards etc. For people with mobility impairments, the uneven surfaces, steps, narrow accessways create difficulties and barriers to education, employment and essential goods and services.

3.3. Public buildings

Public buildings, including transport related buildings, have varying degrees of accessibility; but mostly multiple barriers. The barriers often relate to buildings and public spaces designed decades, even centuries ago. These include features such as: Stepped entrances, unequal steps, lack of handrails, narrow or heavy to operate entrance 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, lack of guiding blocks (TGSIs), and so on.

4. Barriers to inclusion

The extensive barriers in the distressed asset base of the built environment and transport, creates substantial discrimination within Sri Lankan society. CBM Australia notes that 39% of people with a disability had never attended school. The rates of unemployment are higher among people with disability as there is limited access to education and training for people with disability. In addition to general disability rates, Sri Lanka has the impact of civil war. *"The civil war resulted in significant rates of physical impairment and mental illness. It is estimated that 27.6 percent of the population in*

conflicted areas in the North Eastern province experience severe post-traumatic stress impairments". Landmines and unexploded ordnance continue to cause physical injury and death with children accounting for 30% of the casualties [4].

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); and societal and family expectations (negative view of helplessness) [5]. *"People with disability in Sri Lanka typically face discrimination and stigma"*. Superstition often means disability is seen as a punishment for wrong doing in a previous life [4].

5. Sri Lankan Accessibility regulations

The Sri Lankan government has legislative and policy commitments to ensure public facilities are accessible for people with disabilities. The *Protection of the Rights of Persons with Disabilities Act, 1996,* [6] provides protection for people with disabilities against discrimination in employment, education, and access to the built environment. The *Disabled Persons (Accessibility) Regulations* were introduced in 2006 [3], with amendments made in 2009 [7]. The United Nations Convention on the Rights of Persons with Disabilities (UNCRPD) was ratified in 2016 [8].

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 provided in 3 languages; and are prescriptive. Additionally, there are minimal penalties for non-conforming design and construction.

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

The challenges of applying prescriptive regulations to a diverse and distressed existing asset base are considerable and frequently hard to achieve. This could range from a requirement to apply 2 handrails, to a narrow staircase, providing a staircase of shallow gradient to a compact heritage building, to providing level access buses, to providing accessible footpaths to accessible sanitary accommodation, or ramped access to a property in hill-country, and so on. Prescriptive regulations are easier to achieve for new construction, with minimal site constraints or to new transport conveyances.

The Regulations also include several conflicting clauses and diagrams, as well as incomplete diagrams and missing dimensions. From the workshops conducted, it was also clear that there were translation errors, between each language version of the Regulations. Strict compliance is practically hard to achieve in many situations. A pragmatic, informed approach was required.

The challenge was to develop a training workshop that would allow participants to work within the constraints of the Regulations, acknowledge the difficulties, and provide practitioners with the tools to understand user needs and take design back to basics, mitigating as many issues as possible.

6. Applying universal design

Universal design was the ideal starting point, not least because of its emphasis on users, but also that it allows for acknowledging and embracing cultural factors which is very important given ethnic tension in Sri Lanka. 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. [8]*

Building on this definition, it was emphasised that:
- Universal design is NOT another word for designing for people with disabilities; 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.

In order to apply this definition of universal design, it was decided to take users back to basics, and start the workshop with a segment on understanding diversity generally. This was followed by more specific detail on understanding disability, not least to help dispel common myths and stereotypes, but to allow the delegates to understand the context of why certain aspects of design are important. For example, to illustrate different levels of vision impairment, a series of slides were shown to illustrate how a person's vision is affected and what they can and cannot see. This provided helpful context for understanding designs to assist people with vision impairment. 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. For wheelchair users and people with other ambulant disabilities, the spaces required to move around safely, as well as role of grab bars, toilet transfers etc, all provide basic, but essential, understanding. Despite the 'medical' detail to support an understanding of disability, there was an explanation of the difference between the medical and social models of disability and attitudinal barriers attached to medical-model-thinking. The importance of the social model was emphasised for equitable outcomes.

The workshop sought to help delegates re-frame their thinking to solve problems. Whilst the challenge related to complying with accessibility regulations, thinking about all users, assists designers think in more holistic ways as well as apply different perspectives to solving design challenges. For example, this is why the design standards are drafted like this; these are the people who benefit; these are ways you can mitigate against site constraints and make the design outcomes accessible to most people most of the time. Key messages to flow from this were how designs for people with disabilities are good for other people too, that universal design is essentially good design, and that universal design requires thought, not cost.

7. Strategy and prioritisation

What was clear from a brief time in Sri Lanka, was that the scale of the challenge could not be addressed overnight. Strategy and prioritisation would be crucial. 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 Transport Standards [9].

The second review of the Disability Standards for Accessible Public Transport 2002 (Transport Standards), led to the recommendation of a Whole-of-Journey approach, recognising that for public transport to be accessible, it needed to factor in all aspects of the journey, from the decision to travel, planning the journey start and end, transport stops and services, interchanges, disruption, supporting infrastructure, and the return journey [10]. Sharing these kinds of lessons, can allow for achieving outcomes more quickly, without lengthy learning process, and minimising mistakes along the way.

Another example from Australia was the idea of Principal Pedestrian Networks. The approach in the guidance is very comprehensive, but the principles of strategic prioritisation are relevant [11]. Such prioritisation ensures key services, places and routes are prioritised and allows effective use of resources, to maximise benefit, whilst a substantive works programme is undertaken, often over many years.

8. Conclusion

To conclude the training, a series of scenarios were divided between groups of delegates. 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. Through this process, the importance was shown of community and industry engagement and lively and thought-provoking discussions ensued.

Providing delegates with an understanding of universal design allows them to apply multiple perspectives and understanding to 'solve' problems; in particular, address the problem of achieving accessibility of distressed assets within a rich cultural context. Universal design can, and will, contribute to achieving sustainable and equitable outcomes for the built environment and transport in Sri Lanka.

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