



Enabling the disabled

The role of ICTs in the lives of persons with disabilities in Myanmar

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EXECUTIVE SUMMARY

This report aims to examine the ways in which information and communication technologies (ICTs) were used by persons with disabilities (PWDs) in Myanmar. User experiences and barriers to use, as well as the extent to which ICTs can improve aspects of PWDs' lives such as education, transportation and livelihoods, are discussed.

Qualitative research in the form of focus group discussions, in-depth interviews and key informant interviews form the primary evidence base for this report. Over 100 respondents were interviewed in Yangon, Mandalay, Shan State and Ayeyarwady in May 2018.

Key research findings include:

- **ICT use varied by type of disability. Facilitating conditions such as socio-economic status determined access to devices**

ICTs, particularly mobile phones, were commonly used to keep in touch with friends and family. Facebook was used across the respondent pool who were ICT users. Respondents with visual and hearing disabilities used ICTs in a more limited manner than those with physical disabilities. Those with visual disabilities often tended to make voice calls and send voice notes over messaging services. Respondents with hearing disabilities tended to use video calling services and communicate via text-messaging applications. Some respondents spoke of how they had little disposable income to purchase a mobile phone. Hearing disabled respondents mentioned difficulties

in affording data packages needed to engage in video calls.

- **Skills and enabling technologies affected utility derived from access**

Respondents' ability to read, write and communicate affected their day-to-day lives, as well as their use of a device. Hearing disabled respondents, particularly those with congenital conditions, discussed how their sometimes limited vocabulary prevented them from understanding complex sentences constructed by others, while those who were able to engage in video calls were also those who had been to a deaf school and learned sign language. The widespread use of Zawgyi, which is not compatible with the Unicode standard, along with a wanting local language text to speech (TTS) engine, determined the accessibility of digital content to the blind.

- **Difficulties in navigation have ICT solutions, but accessibility problems for the physically disabled require analogue complements**

The lack of ramps for buildings and paved roads prevented some respondents from venturing outside their homes. Problems pertaining to navigation were common narratives – respondents with visual disabilities spoke of their difficulty in ascertaining direction, as well as dealing with oncoming traffic. Once on public transportation such as buses, they had difficulty determining the correct stop. Some respondents used applications such

as GetThere using an English TTS. A few bus routes of the Yangon Bus Service were complemented, with those with hearing disabilities benefiting from the LED signposting of the next bus stop. More accessible infrastructures for transportation such as handrails and boarding devices for buses are required for those with physical disabilities, and to an extent those with visual disabilities, which ICTs alone cannot solve.

- **Insufficient study materials and wanting examination procedures**

The dearth of study materials, particularly for those with visual disabilities, was an issue that was highlighted – one respondent who was attached to a blind school, however, spoke about having a college textbook translated to Braille for her. Ready access to screen readers and TTS engines may increase availability of content. Taking exams was another problem articulated – some blind respondents spoke of how those who were recruited to assist them wrote down their answers incorrectly. Computer based examinations were requested as a solution.

- **ICTs used to engage in business, but difficulties finding employment despite conducive legislation**

Despite Myanmar's Law on the Rights of PWDs, which was passed in 2015 and included language on quotas for the disabled, many of our respondents spoke of difficulties in obtaining employment. Pre-conceived notions

of jobs suited for disabled individuals (such as the blind becoming masseurs), may have limited both the demand and supply of broader employment opportunities. Some private employers including banks had joined hands with DPOs to recruit PWDs into their workforce. Many respondents spoke of how they used ICTs to engage in economic activity, often turning to self-employment. Facebook, for example, was used to engage in business, which acted as a source of income.

● **Mobile phones used to communicate with others to ease loneliness**

A number of respondents, particularly those who were housebound and without many friends and family, spoke about feeling lonely and depressed. Mobile phones were used to get in touch with friends and family in such cases.

● **Reliance on technology as an assistive device often depended on existing relationships with friends and family**

Some respondents who lived independently, away from their family, tended to use technology solutions to help with navigation and everyday tasks. Others with familial support, however, saw less of a need for such technologies and relied more on help from their friends and family to get about, and engage in everyday tasks such as conversing with shopkeepers.

The remainder of this report is divided into seven chapters. Although the chapters cover substantively different issues, it is necessary to note that they cannot be viewed in isolation.

1. Introduction: offers context, providing an overview on disabilities in Myanmar and ICTs

in Myanmar, before linking them in the following chapters

2. Methodology: describes the research design and its limitations

3. ICT use and access to digital content: looks into the means by which different PWDs use ICTs and access digital content, and the challenges they face in doing so

4. Transport and infrastructure: reviews the difficulties in physical accessibility to buildings and transportation systems, as well as softer issues such as navigation

5. Education: presents challenges in learning such as accessing study materials and being assessed on their knowledge

6. Livelihoods: covers respondent experiences in earning such as discrimination at the workplace, and the training received to engage in livelihoods

7. Emotional connectivity: presents additional barriers to PWDs, such as the lack of patience and tolerance, as well as reports of dejection as a result

KEY RECOMMENDATIONS

- Create mechanisms to implement the Myanmar Law on the Rights of Persons with Disabilities, beginning with the appointment of the National Committee.
- Implement projects to improve digital literacy among PWDs
- Sign and ratify the Marrakesh Treaty to Facilitate Access to Published Works for Persons Who Are Blind, Visually Impaired or Otherwise Print Disabled
- Encourage the use of Unicode compatible fonts and the development of a workable local language text-to-speech engine
- Allow for persons with visual disabilities to take computer-based examinations
- Establish accessible digital mental health services

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LIST OF ACRONYMS

AT	Assistive Technology
CDS	Critical Disability Studies
CRPD	Convention for the Rights of Persons with Disabilities
DEA	Disability Employment Advisor
ESOMAR	European Society for Opinion and Market Research
IDI	In-Depth Interview
KII	Key Informant Interview
NDDP	New Deal for Disabled People
NDPA	New Deal Personal Advisor
NDYP	New Deal for Young People
PWD	Persons with Disabilities
TTS	Text-To-Speech
UN	United Nations
WATI	Wisconsin Assistive Technology Initiative

1 INTRODUCTION

1.1 DISABILITY: AN OVERVIEW

Ten percent of the world's population (nearly one billion people) lived with at least one form of disability in 2011. Moreover, 80 percent of these persons with disabilities (PWDs) lived in developing countries (World Health Organization, 2011).

The Preamble to the United Nations Convention on the Rights of Persons with Disabilities (UN CRPD) identifies “disability” as an evolving concept and states that disability results from the interaction between persons with impairments, and attitudinal and environmental barriers that hinder full and effective participation in society on an equal basis with others. This definition of disability departs from a long-held articulation that identified disability by the medical norms of impairments. Hence disability is now accepted as a form of discrimination and non-inclusion. This approach to disability corroborates the “Social Model” developed by Critical Disability Studies scholars (Goodley, 2011). The social model establishes that disability shall not be viewed thereafter as a medical or health-related condition. Instead, it shall be considered a product of non-enabling social circumstances that should highlight the policy obligations of governments to build an enabling society that helps the PWD to participate in the daily life of an average person.

The right overtures in this direction are enshrined in Article 3 of the CRPD as general principles:

CRPD Article 3 - General Principles

The principles of the present Convention shall be:

1. Respect for inherent dignity, individual autonomy including the freedom to make one's own choices, and independence of persons;
2. Non-discrimination;
3. Full and effective participation and inclusion in society;
4. Respect for difference and acceptance of persons with disabilities as part of human diversity and humanity;
5. Equality of opportunity;
6. Accessibility;
7. Equality between men and women;
8. Respect for the evolving capacities of children with disabilities and respect for the right of children with disabilities to preserve their identities

1.2 DISABILITY IN MYANMAR

Figure 1 illustrates that 4.6 percent of Myanmar's population lived with some form of disability in 2014, with more than a quarter of this population with disabilities having multiple disabilities (Department of Population, 2015). The presence of visual disabilities was most common, with over half the population with disabilities reporting some difficulty in seeing.

The numbers in Myanmar confirm the strong correlation between age and prevalence of disability demonstrated in the Houses of Parliament, UK in 2012. (Mitra, Posarac, & Vick, 2011). The prevalence of disability in Myanmar begins to rapidly increase from the age of 55.

The disabled population, in numbers and as a percentage of the population in a state/region, was highest in the Ayeyarwady region. (Table 1). Yangon, Shan State and Mandalay also had a large number of disabled individuals living in the area. The disability prevalence rate was higher in Chin State (7.4%) and Tanintharyi Region (7%), likely due to the smaller population bases.

The Government of Myanmar has taken a series of actions to support PWDs in Myanmar. Much of such actions relate to legislation and policy drafts:

- 2008: Constitution of the Republic of the Union of Myanmar provision-“the Union shall care for mothers and children, orphans, fallen Defence Services personnel’s children, the aged and the disabled” (Article 32)
- 2010: Compilation of the National Plan of Action for PWDs 2010-2012
- 2011: Myanmar ratified the UN CRPD
- 2011: Committed to the Bali Declaration on the Enhancement of the Role and Participation of the PWDs in ASEAN Community and Mobilization Framework of the ASEAN Decade of PWD 2011-2020
- 2012: Committed to the Asia and Pacific Decade of PWDs, 2013-2020 and the 2012 Incheon Strategy to ‘Make the Right Real’
- 2014: Compilation of the National Social Protection Strategic Plan. Identified PWDs as “among the most vulnerable and marginalized groups, and they face specific risks and vulnerabilities” (page 52)
- The inclusion of four questions on disability in the 2014 Census served the need to gather information for policy development for disabled persons
- 2015: Completion of the legislative process of the Law on the Rights of PWDs

Source: Highlight from 2014 Population & Housing Census (2017)

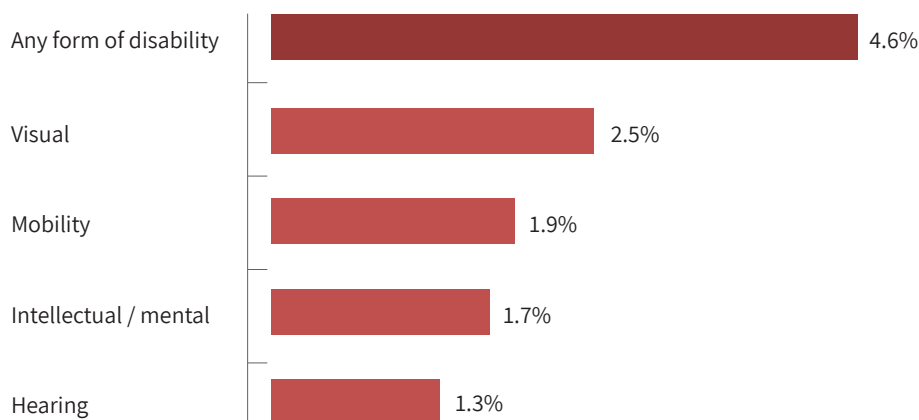


Figure 1: Prevalence of disability by type (% of population)
Source: Myanmar Union Census (2014)

State/region Prevalence of disability

	Number	Percentage
Union	2,311,250	4.6%
Ayeyarwady	472,619	7.6%
Yangon	250,441	3.4%
Shan	228,074	3.9%
Mandalay	204,328	3.3%
Bago	202,431	4.2%
Magway	201,800	5.2%
Sagaing	177,852	3.3%
Rakhine	112,179	5.3%
Mon	109,298	5.3%
Kayin	99,389	6.6%
Tanintharyi	98,133	7.0%
Kachin	65,837	4.0%
Nay Pyi Taw	36,583	3.2%
Chin	35,669	7.4%
Kayah	16,617	5.8%

Table 1: Prevalence of disability by state/region
(number and % of population in state/region)

Source: Myanmar Union Census (2014)

1.3 ICTS IN MYANMAR

The telecommunications sector has experienced much change in the past decade. In 2013, 91 international companies competed for two licenses to operate alongside incumbent MPT; the licenses were eventually awarded to Telenor and Ooredoo (Oxford Business Group, 2016). A fourth operator, Mytel, began operations in 2018. Supply-side data indicates rapid growth in mobile subscriptions in Myanmar, increasing from 4.4 million subscriptions in the third quarter of 2013, to over 45.1 million by mid 2016. (Telegeography, 2015; Waring, 2016; Brekke, 2016; Gilmore, 2016). Before liberalization (as recently as 2012), there were only two mobile cellular subscriptions per 100 individuals. This number has jumped to over 100 mobile subscriptions per 100 individuals as at 2018. Demand-side data from 2016 shows that, of the 61 percent of the population aged 15-65 that owns mobile phones, 78 percent own smartphones. On the other hand, a mere two percent of the population aged 15-65 claimed to have used computers (Zainudeen, Galpaya, Hurulle & Suthaharan, 2017).



2 METHODOLOGY

Focus group discussions (FGDs), in-depth interviews (IDIs) and key informant interviews (KIIs) were employed to investigate daily life and the challenges in social, economic and educational aspects of the PWDs' lives, as well as their use of ICTs. Fieldwork was carried out in partnership with Kantar Public, Myanmar and the Myanmar ICT for Development Organization.

The FGDs and IDIs were conducted in four regions in the country – Yangon, Mandalay, Ayeyarwady and Shan State. The areas were chosen if one of the two following criteria were satisfied: having a large number of disabled individuals in the area or having a high percentage of persons with disabilities (see Table 1 in Section 1.2).

The research focused on three types of disabilities: physical, visual and hearing. The questions used to screen for incidence of disability were tied to those used in the 2014 Myanmar Union Census. Only those with severe disabilities were screened. For example, for visual disabilities, only those who said they cannot see at all without glasses, or those who have a lot of difficulty seeing without glasses, were included in the study.

The sample was designed such that a gender balance was obtained as well as a balance in age and socio-economic status of the respondents. The screening criteria were set up to ensure that a minimum of 30 percent of the

respondents were in employment. Controls were put in place to ensure that not only those employed as masseurs, a popular vocation among the disabled in Myanmar (Nanda Win, 2018), were recruited.

Quotas were also set to ensure that ICT use was taken into consideration when selecting respondents. A minimum of 70 percent

of those owning a mobile phone were to be users of smartphones, mirroring the corresponding smartphone ownership statistic of 78 percent among the population aged 15-65 in 2016. At least 20 percent of ICT users were to have used ICT related assistive technologies (ATs). A list provided to the recruiters can be seen in Table 2.

Type of disability	ICT related assistive technology
Visual	Screen reader Magnifying software GPS-based navigation device Adapted keyboard Online/remote-access services (e.g. bill payment, food delivery)
Hearing	Amplified telephone Headphones Online/remote-access services (e.g. bill payment, food delivery)
Mobility	Magnifying software Adapted handset/keypad Hardware support frames Online/remote-access services (e.g. bill payment, food delivery)

Table 2: ICT related assistive technology (AT) for each type of disability
Source: Kantar Public, Myanmar

2.1 FOCUS GROUP DISCUSSIONS (FGDs)

Three paired pilot interviews were conducted, after which the discussion guide used for interviews was amended. Seventeen focus groups were conducted to interview 81 respondents.

The cross-section of respondents is given in Table 3.

Efforts were made to keep the group homogenous in terms of type of disability, use of ICTs, gender, socio-economic classification (SEC) and age, to allow the respondents to engage

in conversation with ease. The team also attempted to hold the FGDs in accessible locations which allow respondents to move around with ease.

Location	Disability type	Socio Economic Classification (SEC)	ICT use (U: users, NU: non users)	Employment	Gender (M: Male, F: Female)	Age
				(E: Employed, Un: Unemployed), minimum splits for each		
Yangon	Hearing	A/B	4U	2E / 2Un	4M	15-24
	Physical	A/B	6U	3E / 2Un	6M	40+
	Visual	A/B	6U	2E* / 2Un	6M	25-39
	Hearing	C/D/E	4U	2E / 2Un	4F	40+
	Visual	C/D/E	6NU	2E* / 2Un	6F	15-24
	Visual	C/D/E	2U	2Un	2F	15-24
	Visual	C/D/E	6U	2E* / 2Un	6F	40+
Ayeyarwady	Hearing	C/D/E	4NU	2E / 2Un	4M	25-39
	Physical	A/B	6U	2E / 2Un	6F	25-39
	Visual	C/D/E	6U	2E* / 2Un	6F	15-24
Mandalay	Visual	A/B	6NU	3E* / 2Un	6M	40+
	Hearing	C/D/E	4U	2E / 2Un	4F	25-39
	Physical	C/D/E	6U	2E / 2Un	6M	15-24
Shan State	Hearing	A/B	4U	2E / 2Un	4F	15-24
	Physical	C/D/E	6NU	2E / 2Un	6F	25-39
	Visual	C/D/E	5U	2E* / 2Un	5M	25-39

Table 3: Sampling table for focus group discussions * At least one should not work as a masseur

2.2 IN-DEPTH INTERVIEWS (IDIs)

Twelve in-depth interviews were carried out in the four states/regions as specified in Table 4. Respondents who had spent at least 90 percent of their time at home in the three months preceding the interview were chosen. This criterion was taken into consideration as it was hypothesized that their experiences may differ from those able to commute to the FGD location.

Location	No of IDIs	Type of disability
Yangon	4	2 Mobility 1 Hearing 1 Visual
Ayeyarwady	2	1 Hearing 1 Visual
Mandalay	4	2 Mobility 1 Hearing 1 Visual
Shan State	2	1 Mobility 1 Visual
Total	12	5 Mobility 3 Hearing 4 Visual

Table 4: Number of in-depth interviews carried out

2.3 KEY INFORMANT INTERVIEWS (KIIs)

Seven influential persons in Myanmar's disability sector were contacted and interviewed regarding their experiences with PWDs, and the role of ICTs in assisting the lives of these people. They were able to weigh in on broader aspects surrounding challenges and opportunities for the disabled, such as legislation and

policy implementation. The KIIs took place in Yangon in the key informants' workplace.

Those individuals who were accepted to participate in the research provided consent to participate in the research, to have the conversations recorded, and to have their photographs taken.

The following measures were taken to obtain consent for each type of disability:

Visual: the interviewer read the consent statement slowly and carefully to each participant in advance of the focus group discussion. Any parts which an individual did not understand, were repeated. If anyone was unable to sign the document, their consent was recorded with a thumbprint.

Hearing: at the time of reading the consent form, recruiters ensured that a person proficient in sign language was able to translate any participant questions and field team answers.

Physical: written consent forms were provided, after having had the terms fully explained. Verbal consent was obtained from those who were physically unable to sign the document or provide a thumbprint.

In compliance with ESOMAR global research codes for studies with PWDs, recruiters: (i) took into account the mental well-being of the person involved, when considering what subjects may or may not be considerably dealt with in an interview, (ii) ensured that a responsible carer (apart from the interviewer) remained close at hand while the interview was carried out, where necessary. Parental consent was obtained from those below the age of 18.

2.4 LIMITATIONS

Those with intellectual and mental disabilities were excluded from the research, owing to anticipated challenges with communication, and a lack of skilled therapists on the team who could conduct research without causing distress.

Even among respondents with visual, hearing and physical disabilities, a key limitation in the research was the non-generalizability of the results. The selection of respondents was done purposively according to a set of clearly defined guidelines in terms of types of disability, severity of disability, gender, age, socio-economic classification (SEC) and employment status. The non-generalizability of the results is thus a tradeoff for obtaining a variety of views in the absence of random sampling methods.

Not all the PWDs who were approached or screened for the study agreed to participate in the research (See Table 5). The most commonly mentioned reasons were that they were busy with their own tasks, or were not interested in participating in the research.

As with many types of demand-side research, disclosure bias, where respondents do not reveal certain behaviours, is a possibility, particularly in FGDs where multiple respondents are in the room. The team attempted to minimize disclosure bias by keeping the FGDs as homogenous as possible in terms of gender, age and SEC.

Location	Visual	Hearing	Physical	Total
Yangon	10	5	7	22
Mandalay	5	1	2	8
Shan State	3	1	2	6
Ayeyarwady	4	0	1	5
Total	22	7	12	41

Table 5: Number of refusals to participate in study by location and type of disability

Source: Kantar Public Myanmar

3 ICT USE AND ACCESS TO DIGITAL CONTENT

Article 9 of the UN CRPD promotes States to ensure accessibility to information and communication technologies and systems, including the Internet, and encourages the design and development of information and communication technologies for the betterment of PWDs' lives. Myanmar, having signed and ratified the UN CRPD, is thus expected to take all necessary steps to adhere to its provision relating to content of the ICTs.

CRPD: Article 9 - Accessibility

1. To enable persons with disabilities to live independently and participate fully in all aspects of life, State Parties shall take appropriate measures to ensure to persons with disabilities access, on an equal basis with others, to the physical environment, to transportation, to information and communications, including information and communication technologies and systems, and to other facilities and services open or provided to the public, both in urban and in rural areas. These measures, which shall include the identification and elimination of obstacles and barriers to accessibility, shall apply to, inter alia:

b) Information, communications and other services, including electronic services and emergency services.

2. State Parties shall also take appropriate measures:

g) To promote access for persons with disabilities to new information and communication technologies and systems including the Internet;

h) To promote the design, development, production and distribution of accessible information and communication technologies and systems at an early stage, so that these technologies and systems become accessible at minimum cost.

The trends in the type of device used among our respondents with disabilities mirrored that of the larger population. Computer use was low amongst our respondents, much like the population aged 15-65, where a mere three percent of the population reported that they had ever used a computer in 2016 (Zainudeen, Galpaya, Hurulle & Suthaharan, 2017). An exception to the rule on low use of computers was observed in one group in this research – those who had studied in a dedicated blind school. This group also tended to have a more sophisticated user experience with mobile phones.

Our respondents, as a whole, tended to own and use mobile phones more than computers. Many tended to use it to communicate with friends and family.

"Even though we are far away, we feel near. For example, deaf friends from Nan Phat, northern Shan State, when we call to one another, we talk for a long time."

R80, Hearing disability, 39, F, SEC C, Teacher, Mandalay

"My relatives on my Mom's side are in Yangon and sometimes we contact them using the phone and Messenger."

R58, Physical disability, 33, F, SEC A, Teacher, Ayeyarwady

Some respondents spoke about using Facebook as a means of finding out about disasters. Others noted some progress in disaster communications for the disabled, though closed captioning was not constantly used.

"I can find out about earthquakes, floods and natural disasters from Facebook videos on the phone."

R79, Hearing disability, 32, F, SEC E, Unemployed, Mandalay

"[We have experienced] natural disasters such as fires, storms, floods and so on. We cannot hear any sound, so we don't know what is happening around us. At home, I only know what is happening when my husband or brother tells me. On TV, they only use words when reporting emergency storms and natural disasters. They don't use sign language all the time."

R80, Hearing disability, 39, F, SEC C, Teacher, Mandalay

Our respondents with physical disabilities tended to have the least amount of disability-specific problems when using ICTs. This may be affected by the fact that only a few respondents in the group with physical disabilities had congenital hand deformities that may otherwise affect their use of the mobile phone. The specific issues voiced by the visual and hearing disabled are discussed in the following section.

3.1 LACK OF DIGITALLY ACCESSIBLE CONTENT: VISUALLY IMPAIRED

Accessing digital content was a challenge for the visually impaired respondents. Some spoke about how they would only be able to gain access to books if they were converted into audiobooks. Others spoke about how their textbooks were converted into Braille by the Blind School so that they would be able to follow lessons in university.

"I would like to read but I am not able to. I can only read if they publish books for the blind or if voice donors donate their voice and convert the books into audio[book]s."

R27, Visual disability, 19, F, SEC C, Student, Yangon

"We can listen again to the recordings of the teacher teaching us and use the translated textbook that is made for us. We got that from school. They printed it all."

R70, Visual disability, 23, F, Student, Yangon

The need to convert these books into Braille or audiobooks would be reduced if the blind in Myanmar were able to read content online. They require screen readers and TTS engines to do so effectively. If they wish to read books in English (or another language in which the TTS engine is workable), they can do so by using the accessibility features on their mobiles. If Myanmar were to sign and ratify the Marrakesh Treaty to Facilitate Access to Published Works for Persons who are Blind, Visually Impaired or Otherwise Print Disabled, the country would be able to grant copyright exceptions for PWDs with visual disabilities.

3.2 LACK OF A UNICODE COMPATIBLE FONT, AND A WORKABLE TTS ENGINE: VISUALLY IMPAIRED

Using screen readers and TTS engines for the Myanmar language adds additional layers of complexity. First, content needs to be made readily available in the Myanmar language. At the time of writing the report, Zawgyi was the most widely used font in Myanmar. The use of this font has become a point of contention, as it is not compatible with Unicode – the international standard for encoding, representing and handling text. The pitfalls of using Zawgyi are documented in Nadaraja (n.d.) and Hotchkiss (2016). Additional problems exist for the blind, as many screen readers do not recognize Zawgyi.

Further, the development of a fully functional local language TTS engine has not been completed. The two problems together have made accessing local language content online a challenge for the blind.

"Posts with Burmese sentences are not for us. The phones cannot read Burmese. As my phone cannot read Burmese, we cannot use Facebook fully. I don't feel satisfied."

R41, Visual disability, 24, M, SEC C, Masseur, Shan State

One respondent spoke of how she was taught to type Unicode in school. However, given the ubiquitous use of Zawgyi, she felt the font should be "fixed" so that she too could use it like those who were not blind. Being literate in English was an advantage to our blind respondents, as they were able to access on-

line content in the language. Some, like R43, spelled out local words in English, in an attempt to converse in the local language.

"Now, we have to learn computer from grade five to grade seven. Then, we have to use the Myanmar font, which is different from what other people use and thus it is not of much use. We also type in Myanmar but it's complex. So, if they can fix it for us, then we will be able to use it the computer like the people who can see. For English, it is very convenient for us now. We can use JAWS."

R27, Visual disability, 19, F, SEC E, Student, Yangon

"Burmese is not okay at all. If we use English letters to spell in Burmese, that would be okay for us."

R43, Visual disability, 25, M, SEC D, Masseur, Shan State

3.3 MORE FUNDS NEEDED TO COMMUNICATE AS VIDEO CALLS REQUIRED: HEARING IMPAIRED

The United Nations Broadband Commission in January 2018 adopted the 1 for 2 Target for affordable Internet. This suggests that 1GB of mobile data should account for less than two percent of a household's monthly

income per capita. In Myanmar, the price of 1 GB of mobile broadband accounted for roughly 1.6 percent of the monthly GNI per capita in 2017, falling within the affordability target.

Country	Prices for 1 GB (USD)	GNI per capita per month (current USD - Atlas method)	Prices for 1 GB as % of monthly income
Nepal	7.56	66	11.5%
India	6.13	152	4.0%
Vietnam	5.36	181	3.0%
Bangladesh	2.85	123	2.3%
Cambodia	2.00	103	2.0%
Thailand	8.7	497	1.8%
Myanmar	1.62	99	1.6%
Indonesia	4.11	295	1.4%
Sri Lanka	1.56	320	0.5%

Table 6: Price of 1 GB of mobile data as a percentage of monthly GNI per capita (2017)

Source: International Telecommunications Union and World

Video calling was a popular means of communication among the hearing impaired respondents. The hearing impaired respondents spoke about how they had to incur a higher proportion of income on mobile data than those who did not have to rely on video calls for communications.

"It costs a lot more for those with disabilities because we need to use video calling. This costs more than when making a regular phone call."

R80, Hearing disability, 39, F, SEC C, Teacher, Mandalay

3.4 DIFFICULTIES IN COMPREHENDING LANGUAGE, LEADING TO LIMITED COMMUNICATION: HEARING IMPAIRED

Many of the hearing impaired respondents expressed the difficulty they faced in communicating with others. This was often the case in online and offline settings. They stated that they had limited vocabulary, and had difficulty understanding complex sentences written by others. Many relied on video calls to communicate with those who were able to understand sign language. They were, however, limited by the fact that multiple types of sign language are used in the country. The sign language taught in the Mandalay school differs from that taught in the Yangon school – an interpreter was required to facilitate conversation between the groups during our research.

"There were two types of sign languages in Myanmar. The Japanese International Cooperation Agency (JICA) tried to reconcile the two. The Mary Chapman school in Yangon and representatives from the Mandalay school also joined in to standardize Myanmar sign language with JICA. But as the Japanese were here on project terms, they left after a certain period of time. Social welfare from here could not do it either. So it was never finished."

Head of educational institution

Respondents with hearing impairments spoke about how their difficulty in learning and grasping the language hindered their fullest participation in online fora. R8, despite having completed secondary education, explained his difficulty in understanding complex sentences

which non-disabled people used to converse. He tended to only engage with those who were deaf.

"It is difficult for me to communicate because I only know the Burmese language a little. I am weak in the Burmese language. It's okay [for us] to talk to other deaf people. But when I talk to normal people, I cannot understand what they text, well, without help from others."

R8, Hearing disability, 24, M, SEC B, Masseur, Yangon

The difficulty in understanding language was elevated among the respondents whose hearing disability was congenital – those who had acquired the disability had less difficulty in communicating, as the head of an educational institution articulated:

"There are two types of deaf people. Some are born deaf. They are different to people who become deaf gradually. The ability of those who have acquired the disability to understand is higher because they have been speaking and listening for a long time."

Head of educational institution

CASE STUDIES

The regulator of telecommunications in the United States, the Federal Communications Commission (FCC), established a Disability Advisory Committee in 2014. The Committee includes a variety of stakeholders ranging from operators to representatives from DPOs. It provides advice and recommendations to the Commission on a wide array of disability issues within the FCC’s jurisdiction such as telecommunications relay services and access to equipment. The operators in turn provide a variety of services to the disabled. Issues pertaining to closed captioning, as articulated by R79, are also addressed by both the regulator and the operator.

AT&T, a telecommunications operator in the United States, provides accessibility plans for subscribers with disabilities. A certification of disability is required to process the application. This certification must be made by a qualified healthcare professional or a representative of an institution, agency or non-profit organization actively engaged in work in the disability area specified by the applicant. Different types of plans are available for those with feature phones, and those with smartphones. Table 7 demonstrates the smartphone accessibility plans available as at July 2018.

Smartphone Accessibility plans

Monthly Charge	\$45	\$55	\$75
Data	2GB	5GB	Unlimited
Approximate Face Time	6 hours	15 hours	Unlimited
AT&T Messaging	Unlimited	Unlimited	Unlimited
Overage charge	\$10 per 1GB	\$10 per 1GB	n/a
Voice calls	Unlimited	Unlimited	Unlimited

Table 7: Smartphone accessibility plan by AT&T
Source: AT&T website (Retrieved 24 July 2018)

Despite some progress being made on closed captioning being used by TV stations to communicate at the time of a disaster, section 1.3 brought up the issue that some hearing impaired respondents had limited linguistic capabilities, particularly if their disability was congenital. The need to amend national emergency communication plans and policies to include modalities of disaster communication to support the linguistically challenged, especially, life-threatening information in alerting and incident reporting is clear. Research has been conducted on such messages through pictographs in Cebu in the Philippines, and is discussed below.

A study, led by the Sahana Software Foundation, involving the Philippines and the Deaf Disaster Assistance Team - Disaster Risk Reduc-

tion (DDAT-DRR) in Metro Cebu, derived blueprints for successful disaster communication with pictographs and have proven pictographs to be useful in communicating disasters, and developed a culturally contextual national or regional pictograph dictionary (or thesaurus). It would be used with ICTs for alerting authorities to inform risks and the public to cry for help (incident reporting).

Facebook was also popular among the DDAT-DRR in Cebu for real-time video “signing”. However, during crises there were concerns about the reliability of social media and the Internet in general. SMS-enabled codecs were recommended. Very little or no research has been carried out on the comprehensibility and appropriateness of pictographs (or other mediums) for including linguistically challenged

or marginalized populations in disaster communication.

Graphical interfaces on mobile devices have shown great impact in studies in Africa and India in the field of health and banking applications (Medhi et al., 2011). The “mobile4D” disaster alerting and reporting system demonstrated the success of text-free components using pictographs (Frommberger & Schmid, 2013). The Local Flood Early Warning System (LFEWS) in the Philippines (Antonio et al., 2012) uses basic meteorological icons along with their text based messages. Members associated with the DDAT-DRR were presented with pictograph variations to recognize their comprehensibility and acceptability of the derivations.

Deaf Filipino groups presented with Figure 1 (b) and (d) with the car as an additional context to the house, chose to “ask for help”, “evacuate”, or “seek shelter”. Participants who were presented with Figure 1 (a) and (c) chose to “watch” the situation because some of them live in boathouses (i.e. resembling pictograph in Figure 1 (a)) and others live close to the ocean. Hence, the absence of the reference of a car, in this local context, was simply another rainy day and not a flood.

Figure 2 supports that the pictographs are somewhat understood. However, some training regimen is required because not all pictographs are intuitive.

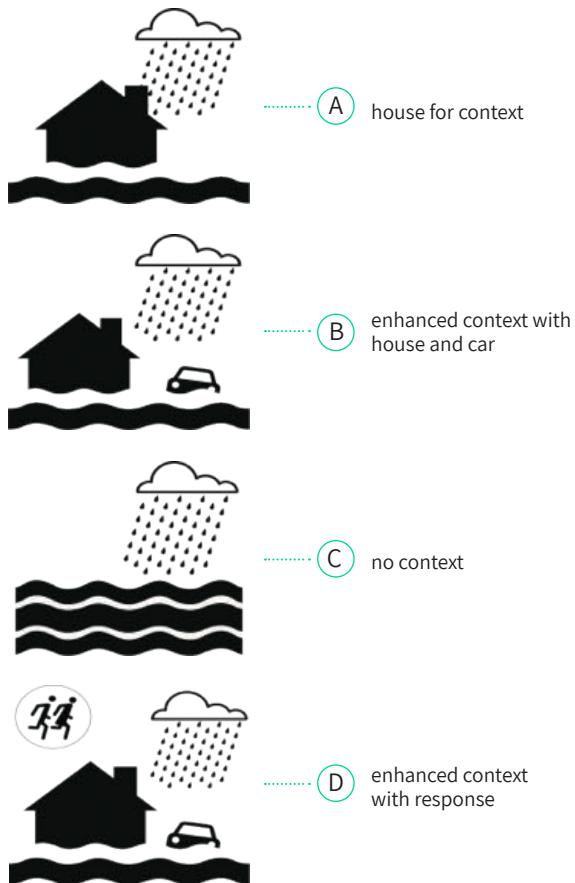
CONCLUSION

Inclusive innovation approaches must be exercised in developing the pictograph thesaurus in support of emergency communication. Investments are necessary to include the marginalized, namely, the functionally- and low-literate populations. The next step requires development and testing of smartphones and GIF-like pictographs.

REFERENCES

Frommberger, L &Waidyanatha, N. (2017). Pictographs in Disaster Communication for Linguistically Challenged and Illiterate Populations: A Survey on Background and Existing Practices, International Journal, Volume 09 Issue 02 (Apr – Jun 2017)

Figure 1. Pictograph variations for a flood incident indicating heavy rain with:



Choice of Icon for Immediate Response Needs

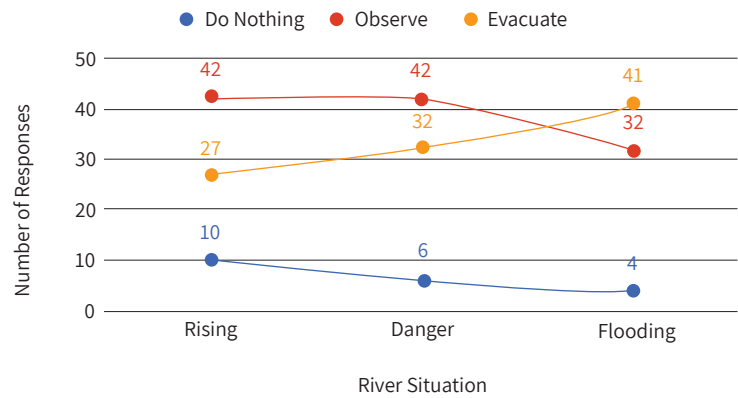


Figure 2: Choice of reporting response when river was rising, had reached a critical danger level, and begun flooding



4 MOBILITY: BUILDINGS, TRANSPORTATION AND INFRASTRUCTURE

Myanmar's Rights of the Persons with Disabilities Law No. 30 of 2015 has ratified the provisions of the UN CRPD. Its Chapter 7 incorporates legal provisions to facilitate accessibility to public transportation and public buildings for the use of PWDs.

CRPD: Article 20 - Personal Mobility

State Parties shall take effective measures to ensure personal mobility with the greatest possible independence for persons with disabilities, including by:

- a) Facilitating the personal mobility of persons with disabilities in the manner and at the time of their choice, and at affordable cost;
- b) Facilitating access by persons with disabilities to quality mobility aids, devices, assistive technologies and forms of live assistance and intermediaries, including by making them available at affordable cost;
- c) Providing training in mobility skills to persons with disabilities and to specialist staff working with persons with disabilities;
- d) Encouraging entities that produce mobility aids, devices and assistive tech-

nologies to take into account all aspects of mobility for persons with disabilities.

CRPD: Article 9 - Accessibility

1. ...These measures, which shall include the identification and elimination of obstacles and barriers to accessibility, shall apply to, inter alia:

- a) Buildings, roads, transportation and other indoor and outdoor facilities, including schools, housing, medial facilities and workplaces.

However, this research unfolded that PWDs still face challenges in mobility despite the legal enforcement provisions in this regard.

4.1 ACCESSIBLE INFRASTRUCTURES IN BUILDINGS, ROADS AND PUBLIC TRANSPORTATION: PHYSICALLY AND VISUALLY IMPAIRED

4.1.1 Road infrastructure

The respondents with visual disabilities spoke of how travelling alone was challenging. Navigating the traffic and crossing roads in particular was a challenge for them. They often depended on another individual to help them.

One respondent spoke of how traffic lights with audio settings could help them decipher when to cross the road, allowing them to live more independently.

"The blind stick alone is not enough when going to the city centre and supermarkets, or crossing roads."

R41, Visual disability, 24, M, SEC C, Masseur, Shan

"They think we always have someone to help us. When we go out we have to remember the road conditions. If I go to the same place twice, I can recognize the road. But now the roads are busier so it doesn't matter whether I remember or not. It is just not safe."

R43, Visual disability, 25, M, SEC D, Shan State

"When crossing the road, we can't see the traffic lights. In other countries, traffic lights make a sound, like 'ting ting'. It would be helpful if we have that here. There will be one kind of sound when we can cross."

R27, Visual disability, 19, F, SEC E, Student, Yangon

It is also worth noting that roads being paved better, with less potholes, may aid those with physical and visual disabilities to move about with more ease.

4.1.2 Public transportation

Boarding public buses was a major challenge for the physically impaired respondents. Most of these people were still forced to use public transport – especially buses – for their daily travelling purposes, given poor socio-economic conditions. This was articulated by respondents in urban areas in both Yangon and Taunggyi in Shan State.

"I need help from people to get on and off the bus."

R44, Visual disability, 24, M, SEC E, Masseur, Shan State

"I decided to go back home by myself because getting in and off the bus is not easy."

R14, Physical disability, 55, M, SEC B, Sportsman, Yangon

"I experience difficulties when I need to take the bus, especially when I go to work, as there is so much traffic. So, I ride a bike from Hla Khuu to Insein to go to work now. It is totally inconvenient. The silicon in my bones could heat up and damage my skin."

R12, Physical disability, 42, M, SEC B, Sportsman, Yangon

The respondents spoke about needing to rely on others to get on and off a bus due to the lack of infrastructure. Sometimes, they gave up on commuting, while others had to seek other forms of transportation.

4.1.3 Buildings

Building architecture was a perennial aspect of accessibility for mobility, as articulated by our respondents with physical disabilities.

"There is no wheelchair-accessible lanes at shopping malls so we are forced to take the stairs. We need to get off the wheelchair and move by ourselves as much as we can to climb down the stairs. At the beginning, I felt shy to do this in front of people. By far, the government has not implemented wheelchair lanes for us. If they did, we do not have to feel shy in public anymore."

R13, Physical disability, 42, M, SEC B, Sportsman, Yangon

"There are always difficulties for wheelchair users like us, when we go out. For example, it is not easy for us to climb up the stairs. At a time like that, the challenges become more obvious for disabled persons like us."

R14, Physical disability, 55, M, SEC B, Sportsman, Yangon

In the absence of accessible infrastructures, those with physical disabilities have been forced to unseat themselves from their wheelchairs and climb the stairs with the help of their body and hands. Despite feeling "shy" to climb stairs this way, this kind of practice is inevitable for those PWDs who require access to buildings to engage in day to day activities.

Amidst the existence of legislation for the encouragement of accessible building architecture, it was quite alarming to hear the above stories from the marginalized PWDs. Although

the above testaments focused on private shopping malls, it was observed that the situation in public buildings is not significantly different. In line with the UN CRPD, Section 28(a) of the Myanmar Disability Act (Rights of the Persons with Disabilities Law, 2015) stipulates that public buildings need to be accessible to PWDs. Therefore it appears from the above cases that enforcement of the aforesaid provisions needs to be expedited. It should also be noted that mobility inside buildings and corresponding accessible building infrastructures is not a need confined to the physically impaired. Other PWDs such as those with visual disabilities too stand to gain from such infrastructures.

4.2 DIFFICULTY IN NAVIGATION: HEARING AND VISUALLY IMPAIRED

The respondents with hearing impairments spoke of how their inability to communicate led to difficulties in commuting. This led to them not being able to ask for directions as they were unable to talk to others to ask for directions. In certain instances they refrained from attempting to ask directions, and got lost.

"The main thing is that they don't understand us. Once I went to Yangon and got lost."

R39, Hearing disability, 24, F, SEC A, Unemployed, Shan

"I had to take the bus twice. I took the wrong bus. Since the YBS system has changed and the bus numbers are not the same as before, I ended up taking the wrong bus."

R8, Hearing disability, 24, M, SEC B, Masseur, Yangon

"One time I got off at the wrong bus stop when I took the bus. I could not ask whether I had arrived at my destination or not, and got off at the wrong stop. I did not ask anybody. I took the bus myself and I got off myself because I was concerned normal people would not understand my question if I had asked them."

R7, Hearing disability, 24, M, SEC A, Masseur, Yangon

Subsequent to concerns of missing bus stops and boarding the wrong buses, some respondents with hearing impairments raised challenges with regard to fare payments.

"When we ride the bus, some bus cost 200 and some cost 300. I was yelled at when I paid 200 for a fare of 300, but I couldn't hear. I knew he was yelling at me but I didn't hear the content. They must write the fee."

R26, Hearing disability, 52, F, SEC E, Teacher, Yangon

The crux of the mobility-related problems reported previously are related to navigation, public transportation and building infrastructure accessibility barriers. Such types of accessibility have been addressed in a number of developed nations, with many of the disability policy concerns of those nations now lying elsewhere, around employment and education-related anti-discrimination legislations.

The city of Stockholm in Sweden, for example, has taken steps to make their infrastructures such as roads and buildings more accessible. Some steps taken, including the Stockholm

model - the accessibility facilities improvement initiative for Public Transportation and City Planning - for pedestrian crossings referred to by R27, are discussed below.

Stockholm for everyone

- **Some 5,200 pedestrian crossings have been converted to follow the established Stockholm model – a solution that includes a ticking sound when the lights turn green, contrast markings and a distinct curb showing where the roadway begins, plus a ramp enabling people in wheelchairs to access the walkway easily.**
- **About 10,300 deep cross-pavement drainage channels have been replaced with new, shallow, rounded ones.**
- **80 or more sports facilities benefit from improved accessibility thanks to their collaboration with Stockholm City's Sports Administration.**
- **About 360 bus stops have been modified by raising the curb height to facilitate boarding and alighting.**

Source: Swedish Institute, 2018

Japan's Basic Program 2002 (Cabinet Office of Japan, 2002) spells out a five-year high priority plan that was time-scaled and matched up with specific goals (See Annex 1). Myanmar

may use cues from these nations to devise clear plans with actionable targets. It must be emphasized in this background that both Sweden and Japan placed high importance on having regular and meaningful consultations with all stakeholders, especially with the directly related rights groups, when devising solutions to the problems considered.

A teacher from a deaf school in Mandalay spelled out the different ways in which the PWD's problems pertaining to navigation and communication could be resolved – in the absence of a friend or family member, the PWD could rely on communicating via pen and paper, if they were literate. The benefit of showing the address of the destination via a mobile device was also articulated.

"We mostly go [outside] with our family. It is not safe to go alone, but it's okay to go with family. We need someone who can translate. If not we need a ballpoint pen and paper, and a map. Or we need a phone. If we don't know where we are going, we can just show the address on our phone to someone. We look at the map when it is a place we have never been to, to check whether we are in the right place or not."

R80, Hearing disability, 39, F, SEC C, Teacher, Mandalay

Navigation-based applications were also useful for the visually impaired, who were able to understand languages other than Burmese. R41 for example, was able to use the English language TTS engine, and access applications such as GetThere and BeMyEyes to navigate. It is noteworthy that he stated that he used Grab Taxis, as opposed to taking public transport.



5 LEARNING: EDUCATION

Section 20 of Myanmar's Law on the Rights of PWDs, stipulates accessible education to disabled students not only from government schools but also private and non-government-owned schools. Later, in Sections 21 and 22 the Law empowers the National Committee on the Rights of Disabled People to make arrangements with the relevant stakeholders to enforce the aforesaid provisions. These provisions have been enshrined to give effect to Article 24 of the CRPD.

The respondents of this study had varied educational experiences. Some respondents had no education. Others, particularly those with visual and hearing impairments, had or were getting their education at a dedicated blind or deaf school. Another group had studied in schools that allowed for PWDs to enrol, but didn't have a dedicated focus on PWDs. Yet another group had a more hybrid experience – some respondents, for example, had first studied at a blind school, and then moved to study at a university.

This section will briefly discuss some difficulties pertaining to learning brought up by the respondents. The difficulties in learning for those with physical disabilities often stemmed from the lack of accessibility of buildings and transport – problems discussed in Chapter 4. This chapter will therefore focus largely on the respondents with visual and hearing impairments who spoke about other challenges they faced in their educational experiences more explicitly.

5.1 DEARTH OF ACCESSIBLE STUDY MATERIALS: VISUALLY AND HEARING IMPAIRED

Students in regular schools spoke of having to rely on other students who were not blind to dictate words out to them.

"If my friends don't dictate the words for me, I report it to the teachers. Then, when the teachers tell my friends to dictate the words to me, they do."

R29, Visual disability [further respondent information withheld]

The Blind School is taking steps to reduce the need for this by creating Braille textbooks and audiobooks for their students. However, making content accessible online may further reduce the strain on these schools on a more long-term basis. This was examined in detail in sections 3.1 and 3.2.

Keeping abreast of the content being discussed in class at regular schools can be a challenge for students with hearing impairments in the absence of sign language interpreters.

"They usually drop out when they arrive at normal school because teachers in government schools do not know nor are able to teach in sign language. So, children just sit and gaze during class."

Head of educational institution

Steps are being taken to record the lessons in

sign language, however, to be shown to children in regular schools.

5.2 RELIANCE ON THIRD PARTIES TO TRANSCRIBE EXAMINATIONS: VISUALLY IMPAIRED

The education system in Myanmar is such that examinations are conducted uniformly in terms of both content and method of examination, regardless of the disability. In other words, PWDs and those without disabilities would have to write the same examination paper. Given the administration of paper-based examinations, our respondents noted the difficulties they experienced relying on the abilities of scribes who they deemed unqualified to write answers to written exams when they dictated the answers to them. They claimed that the many errors that occurred in the process of writing down the dictated answers resulted in lowered grades.

"They [the scribes] are working employees who didn't pass high school. We have to spell every single word. Even words like 'this, is, on, or, off'; we have to dictate every word to them. This is a challenge for us. We asked for only students who had already passed high school, or to be able to take the examination with a computer. With a computer however, the Myanmar language is not that easy – we are still practicing it. But it will be more convenient if we can take our exams using a computer."

R20, Visual disability, [further respondent

information withheld]

They saw using computer-based examinations as a viable alternative in the absence of qualified scribes. An educationalist too, concurred that this may be a viable solution if the correct controls were in place.

"If one were to use one's own computers in an examination, there could be grounds for cheating. But if they were to provide the students with computers that are fully prepared with the questions, the voicing software and accessibility tools ... this sounds like a very good solution."

Teacher at an educational institution

Mobile phones in educational institutions

A teacher at an educational institution spelled out the positives and negatives of allowing mobile phones to be used in schools. At the time of the research, the teacher stated that he felt that mobile phones should not be used by students, even outside the classroom, primarily as it would be a distraction to the students.

"Last year, I myself asked the departments to allow the students to bring their phones, but this year I won't agree to it. The first issue was discipline. Some students didn't take care of their belongings and lost their phones. We had to face many such cases of lost phones. And because they also talked on the phone until late in the night, they didn't get enough sleep. As much as mobile phones are advantageous, they also have certain disadvantages for education."

Teacher at an educational institution

Some other respondents however, spoke of how this restriction was relaxed when they were following tertiary education – in college and in vocational training.

5.3 SELECTED SUBJECTS BEING SEEN AS MORE DIFFICULT TO TEACH AND LEARN: VISUALLY IMPAIRED

Given their disability, some respondents saw certain subjects such as mathematics and geography more difficult to learn than others – likely due to the visual component that is required to understand the subject fully. The need to draw for geography examinations led to their marks being reduced automatically. The perspectives of educators on the skills necessary for PWDs will be discussed in section 6.1.

"Though I stayed at home [until age 20], we hired some teachers from outside to teach me. I was able to learn until high school but the difficulty was with mathematics subjects as my teachers didn't know how to teach the blind. Mostly, I learned only subjects like English that I can memorize. I put my eyes close to the book but still mathematics related subjects were difficult."

R17, Visual disability, 28, M, SEC A, Student, Yangon

"We can't really do subjects like geography because there is drawing involved. Since we can't draw, our marks for drawing are automatically reduced."

R27, Visual disability, [further respondent information withheld]

Since hearing-impaired students are able to read study materials when needed, ATs or sign language interpreters need to be employed in the classroom setting to eliminate the afore-said barrier of teaching. A list of available ATs is given in section 6.4. It was found in many

of the KIs conducted in special needs school settings that the issue of translation is negated considerably as sign language interpreters are utilized in such schools.

It must be emphasized at this juncture that solutions to the issues and barriers relating to education – and the entire learning/education process – of disabled students is a complex matter that cannot be consummately addressed in these research findings. The issue needs a rigorous evaluation of education philosophy with regard to disabled students that is beyond the ambit of the research questions of this project. However it be possible to parse out ways in which ATs could cater to some of the deadlocks concerning education for disabled students. Further, it is apt to point out that AT solutions should be assessed contextually given the relatively high cost of some of the technology in Myanmar.

Advanced ATs for exam-taking and other teaching/learning activities have been utilized by many countries around the world.

In Norway, students are provided with any of the following ATs:

- (a) Microphones combined with an inductive loop system,
- (b) Microphones combined with an FM system, and
- (c) Microphones connected to a sound field system (Rekkedal, 2012).

On the other hand, initiatives like the Wisconsin Assistive Technology Initiative (WATI) have prescribed a wide array of ATs that can help

the learning process of visually impaired students. WATI has developed a list of low- and high-technology devices that offer students access to the academic curriculum as well as extra-curricular activities (Wiazowski, 2009). Although the focus of this information is on assisting students who are blind or have low vision, these tools may also be helpful for many students with other disabilities. Included are specifically designed tools to assist students both in accessing and processing curriculum. It is important to understand the necessity of teaching the underlying skills needed to be independent in the use of ATs, which can be equally valuable in classrooms and community. For example, Braille note takers are useful not only for note taking in class, but also for composing and printing essays, writing notes, sending emails, or browsing the Internet (Wiazowski, 2009).



6 EARNING: LIVELIHOODS

This section will bring forth the findings of this research relating to the employment and earning related challenges faced by the respondents. Respondents with hearing disabilities spoke about how difficulties in communicating made it challenging to gain employment and work in a traditional workplace setting. Suboptimal transport infrastructures prevented the PWDs, particularly the physically and visually impaired, from commuting to school and work, hindering prospects of gaining employment. These issues will not be discussed in great detail in this chapter as they have been addressed in section 3.4 and Chapter 4, but do echo a fair share of the grievances expressed by the respondents when reflecting on their employment prospects. Noteworthy is the fact that the tribulations discussed above also account for a great deal of the disability-specific problems encountered. These challenges that are disability-specific, as well as the more all-encompassing ones discussed in this chapter should both be taken into account when examining the breadth of the conversations had with our respondents on their employment prospects and experiences.

Lack of job opportunities, training deficiencies, communication challenges and discrimination in the workplace were found to be the main challenges that PWDs faced with regard to employment. Job creation and anti-discriminatory policies are strongly connected to the economic development of a country (Mitra, Posarac, & Vick, 2011). Therefore Myanmar,

being a developing country, must prioritize its inclusion obligations when drafting its national policies that underlie the problems discussed throughout this report.

6.1 EDUCATORS POSITIVE ABOUT PROSPECTS FOR PWDs' LIVELIHOODS

Many of the educators spoke about the active steps taken to broaden employment prospects for their students, giving them varied vocational training. While some taught specific skills such as repairing electrical devices, others were more generalists, teaching them English and computer skills. The latter were convinced that the array of professions would increase in correlation to the advancement of the facilities created to train the students with new skills.

"Video editing and Photoshop is suitable for deaf people but we don't have someone who can teach them. We only have training at school. We've hired a teacher to do the training at school, but depending on the budget we can only do this two or three times a year."

Teacher at educational institution

"They are gifted in using technological gadgets. I have also thought to teach them how to fix cars, TVs, air-conditioners and refrigerators. They can also fix keypad phones. If they are taught systematically, they will be very good at it."

Head of educational institution

"My wish for them is to get them employed in some profession. The primary objective is to teach them computer skills and the English language. For example, once you're employed, you need to do the reports and such and you have to compose and read emails. And if you're not able to do that, it could prove to be very problematic. We hope to fill those basic skill sets required so the students will be able to join any profession. There are one or two of my old students who work in the computer field. Some are working as teachers, teaching computer skills. And some are applying their computer knowledge in the NGO field. Some even do audio recording and engineering, applying their basic computer knowledge.

"Being a masseur is a vocational skill, one that doesn't require any computer skills or education. And it works too. For many other jobs, you need to learn computer skills. And computer skills alone are not enough. You also need to have some basic English language proficiency. If you were to work in a NGO, you'd also need management skills, project management, and other similar skill sets to manage a project. Once you've got the requirements, it's not at all hard to get a job."

Teacher at educational institution

Such efforts by teaching institutions such as the deaf and blind schools have had an impact on the outlook on some of their students. However, given that these schools are limited in number, only a select few in certain geographical areas have access to such facilities. Some

others who attempted to learn such skills in outside environments touched on their negative experiences with such training programs.

"I used to be mistreated when I learned tailoring."

R24, Hearing disability, 57, F, SEC C, Unemployed, Yangon

6.2 PWDS CONCERNED ABOUT DISCRIMINATION IN THE WORKPLACE

Discrimination in workplaces due to their disability is a common concern that many PWDS report frequently (Vornholt, Vilotti, Muschalla, Bauer & Colella, 2018). The situation in Myanmar didn't differ much from the global context even though the nature of the jobs performed by the employed PWDS in Myanmar seemed to differ from the nature of jobs performed by PWDS in other parts of the world.

As per the Myanmar Disability Law, Sections 36, 75-76 and 81, employers must employ women and men with disabilities in the jobs that are appropriate for their abilities and capacities and in accordance with the quota specified by the National Committee on the Rights of Disabled People. In doing so, employers must select and employ persons with disabilities who are registered at the relevant township's Employment Exchange Offices. Employers must make appropriate arrangements for the job interview for PWDS, and ensure them equal rights with other workers in relation to interviews, wages, opportunities, promotions, job

security and access to free vocational education and training based on their employability. In particular, employers shall not suspend, fire, demote or transfer disabled employees without sound reasons. Employers must submit the list of employees with disabilities, as well as the job vacancies, to the relevant township's Employment Exchange Offices (International Labour Organization, 2017). The aforesaid legal provisions have been enshrined in view of Myanmar ratifying the CRPD in 2011.

Thus Myanmar has already legislated a considerable number of policies that affect the employment of PWDS. Those provisions closely relate to the enshrinements in the employment section of the CRPD as well. However the sentiments of the respondents did not corroborate the legal provisions.

"There is no equity for the disabled when we apply for a job. Even though we are disabled, our brains can still work well, but we are rejected and we feel depressed. In my experience, we can teach better than others at school. But nobody wants to trust in our capabilities."

R57, Physical disability, 39, F, SEC B, Lawyer and teacher, Ayeyarwady

"It is very hard to work in real society. I don't get paid much in my current job but it is very hard to change our jobs because we are deaf."

R82, Hearing disability, 27, F, SEC C, Shop-helper, Mandalay

Some PWDS stated that getting promotions during employment was tough. Given that climbing the ladder in these institutions was a

challenge, PWDS such as the hearing impaired were paid a lower salary than they expected.

"Deaf people are considered to be a little lower than others in the workplaces, so their salary is less."

R25, Hearing disability, 57, F, SEC C, Unemployed, Yangon

Further, it is worthwhile to investigate the disability employment policies in a country whose practices can be easily benchmarked. A portfolio of policy measures, initiatives and developments in the UK (Meager & Hill, 2006) is given below. These have been elaborated on in Annex 3.

- Mainstream active labour market measures (these are employment or training programs, not specifically targeted at disabled people, but in which disabled people can participate, often on different or advantageous terms, compared with non-disabled people)
- Active labour market or support measures targeted at disabled people
- Employer-focused measures
- Tax and benefit reforms and incentives
- Anti-discrimination legislation and institutions

Myanmar has its anti-discrimination legislation in place. However, the implementation of the entire gamut of its Disability Law provisions on employment depends largely on the institution of the National Committee on the Rights of Disabled People. At the time of conducting the research, the Committee had not been instituted. The failure to institute the

Committee thus acts as a major hindrance to the effective implementation of the disability employment policies. Nevertheless, even in the absence of the Committee, it is worth noting that a few employers, such as select banks and hotels, had taken steps to include PWDs in their workforce.

6.3 PWDs USING ICTS TO ENGAGE IN SELF-EMPLOYMENT

Despite, or perhaps given, the difficulties in finding employment in outside workplaces, a number of our respondents were self-employed, running their own businesses. ICTs had enabled some of them to run their businesses more effectively. Calls were made and messages were sent to get in touch with clients. Facebook, in particular, was widely used among our respondents.

"Moreover, I can find customers and make appointments over the phone. It is convenient for me."

R8, Hearing disability, 24, M, SEC B, Masseur, Yangon

"Since I get customers for my massage service from Facebook, it is beneficial. They send me messages in advance before they come."

R7, Hearing disability, 24, M, SEC A, Masseur, Yangon

"I do my job [fortune teller] on the mobile phone. I also use it for knowledge and to get things for writing."

R85, Physical disability, 24, M, SEC C, Astrologer, Mandalay

"I save pictures of hairstyles from Facebook. I save other people's pictures, and also upload my favourite pictures."

R9, Hearing disability, 17, M, SEC A, Student, Yangon

"I modify wheelchairs and sell them. I use Facebook to advertise my creations. I like making friends on Facebook so I usually send friend requests and accept friend requests as well."

R14, Physical disability, 55, M, SEC B, Sportsman, Yangon



7 EMOTIONAL CONNECTIVITY: RELATIONSHIPS WITH FRIENDS AND FAMILY, AND MENTAL HEALTH

Article 17 of the CRPD states that every person with disabilities has a right to respect for his or her physical and mental integrity on an equal basis with others.

The significance of emotional well-being is strongly associated firstly, with the social stigmas, attitudes and degrading environments created due to the marginalization of PWDs. Secondly, it is associated with the negative personal ego constructed by the disabled person him/herself – an internalization of the external negative factors – due to the external social atmosphere (Antle, 2004; Turner & Samuel Noh, 1988). Therefore, the graver and more degrading the stigmas and social attitudes towards PWDs, the higher the tendency for the PWD to accept and reify degrading encounters, and hence, the further the chances for his/her emotional well-being to be disturbed.

7.1 MANY OF THE PWDs RELIED HEAVILY ON FRIENDS AND FAMILY FOR THEIR DAY TO DAY NEEDS.

Article 23 of the UN CRPD stipulates a State Party's responsibility with regard to the rights of a PWD concerning family and family life. The Article broadly recognizes that family care is a key hub of PWD empowerment. The fear of going to new places experienced by many of

the respondents in this research showcased a deficiency of belonging in public space. The sense of fear showed that they were uncomfortable with participating in daily life on par with a non-disabled person. Some suggested an insecurity to travel alone, particularly to new places. It is needless to state that such a fear placed a constant barrier on the PWDs in being included in regular social life activities.

"I always travel with other people who would support me. It is dangerous. Moreover, I do not know in what place I am because it is a new place. If I don't travel with a friend, I could get robbed or beaten. I have both normal and deaf friends. I never go alone because it is difficult for me to communicate. If I am not in a place that I know very well, such as my massage room, then I do not know where I am."

R8, Hearing disability, 24, M, SEC B, Masseur, Yangon

"I haven't gone out alone. I only go out with my sisters and my friends because there are good people and bad people in this world. As you know, with boys, some are very helpful but some are so cruel, so I don't go out alone."

R92, Visual disability, 39, F, SEC E, Unemployed, Mandalay

A number of the respondents, most of whom

had visual disabilities, spoke of how their families had cut ties with them – their parents had left them at a disabled school, or their spouses had left them once the disability was acquired.

"My wife left me after I was disabled. My son in Yangon is from my first wife. All my relatives in Myanmar left me and I am a person with no relatives."

R75, Visual disability, 58, M, SEC A, Unemployed, Mandalay

"I've lost contact with my family since I was a child. I don't even know their phone number. Honestly speaking, sometimes I want to stay here and sometimes I want to go home. And sometimes it hurts when I feel that they didn't even come to see me."

R32, Visual disability, 19, F, SEC D, Student, Yangon

In contrast, some respondents relied heavily on their families to guide them through roads, to help them shop and with other day-to-day needs, as illustrated in the sections above. Some even went to the extent of suggesting that they would use their children as sign language interpreters, taking them everywhere for this purpose.

"There are three members in my family. My husband, myself and our baby girl. She is four years and six months old now. She is

in kindergarten. We told her to live with her grandmother and aunt so that she will learn to talk. When she wants to talk with us, her parents, she uses sign language. When she wants to talk with her grandmother and aunt, she can speak. She will become better and better in the future. I will take her everywhere to translate for me."

R82, Hearing disability, 27, F, SEC C, Shop helper, Mandalay

However, there were also cases of the respondents living independently. A respondent who was a masseur by profession rented an apartment and lived alone. He, like many of the hearing and visually impaired students, lived in the special needs school that he attended while studying there.

"I don't live with my parents because I go to work. I used to live in the school for the Deaf. However, I don't live there anymore. I rent an apartment and live alone."

R7, Hearing disability, 24, M, SEC A, Masseur, Yangon

The need to rely on assistive devices for means like navigation also often depended on whether an individual had friends and family to assist them in their day to day activities.

7.2 MENTAL HEALTH A CONCERN, WITH SOME FEELING LONELY AND DEPRESSED DUE TO THEIR CONDITION

Respondents were socially marginalized in unique ways, but many were aligned in their feelings of loneliness, frustration at limited

choices, and depression.

Sometime, I stay quiet, thinking of myself alone, and feel very sad and discouraged. Thinking, 'Why me?, Why am I like this? My condition is so bad!'. Many such thoughts have crossed my mind. Eventually I end up weeping."

R99, Visual disability, [further respondent information withheld]

Some, who had simply lost touch with old friends, managed to catch up with them using their mobile phones.

"Even though I am alone at home, when I am talking to my friends on the phone, they encourage me when I feel depressed. And listen to me air out all of my difficulties".

R62, Physical disability, [further respondent information withheld]

"Before using a phone, we couldn't stay in contact with our old friends. But now we can stay in contact with our friends in Yangon, Mandalay, and other places. We can even video call our parents when we go outside. Video calling is how we talk to each other. Around 8am in the morning and 8pm to 10pm in the evening, is the time I use the Internet connection to video call my friends. There are flashes of light and vibrations [on my phone] when my family calls to me. At that time we make a video call."

R48, Hearing disability, [further respondent information withheld]

7.3 NEED FOR SHIFTING ATTITUDES FOR INCLUSION

Grossman and Magana (2016) discussed in their research, the reliance of the PWDs on their children in their day today lives. Especially in the developing world, where social support systems are inadequately placed, and where there are not enough dedicated social workers to engage in professional care services, family reliance is necessitated more gravely. On the other hand, the older the disabled person is, the more he/she is deprived of normal life activities as there is a strong correlation between disability and age (Houses of Parliament UK, 2012).

"We were chatting [me and a woman] and sharing our information for about twenty minutes. When she asked me where I lived, I said that I live in a blind school and I am a student there. Then she stopped chatting. So I blocked her immediately."

R17, Visual disability, 28, M, SEC A, Student, Yangon

Respondents spoke about how teachers in educational institutions not exclusively focused on PWDs, tended to be unsure how to include them in classroom settings.

"Teachers feel embarrassed to ask me questions, although I pay the same amount of school fees."

R20, Visual disability, 26, M, Student, Yangon

A number of the respondents with hearing and visual disabilities also felt that others perceived becoming masseurs or craftsmen as the only suitable path for them.

"I think some people think that massage and crafting is the only thing the blind can do. Some can understand our situation but some don't."

R43, Visual disability, 25, M, SEC D, Masseur, Shan

"People think [PWDs] can only be artisans and craftsman. There are no training schools here and their parents can't send them to Yangon."

R57, Physical disability, 39, F, SEC B, Lawyer and teacher, Ayeyarwady





8 RECOMMENDATIONS

- Create mechanisms to implement the Myanmar Law on the Rights of Persons with Disabilities, beginning with the appointment of the National Committee.

The Myanmar Law on the Rights of PWDs addresses a number of concerns of our respondents, ranging from transportation to education to livelihoods. Ensuring that public buildings, transportation and study materials are accessible to PWDs and ensuring equal opportunities for PWDs in workplaces are among issues addressed in the Law. At the time of the research, appointments were yet to be made to the National Committee, whose mandate included creating guidelines for activities such as those mentioned above.

- Implement projects to improve digital literacy among PWDs

The Draft Universal Strategy of Myanmar (2018-2022) notes the need to have training programmes to improve digital skills of target groups, including PWDs. A number of respondents who were mobile owners did not have sufficient skills to use the existing accessibility features on their mobile phones, limiting the scope of their use of the devices.

- Sign and ratify the Marrakesh Treaty to Facili-

tate Access to Published Works for Persons Who Are Blind, Visually Impaired or Otherwise Print Disabled

The Marrakesh Treaty grants copyright exceptions for digital publications for PWDs with visual disabilities. This may grant wider access to internationally available digital content such as e-books, which could act as accessible study materials.

- Encourage the use of Unicode compatible fonts and the development of a workable local language text-to-speech engine

The use of Unicode compatible fonts by the wider public could allow for screen readers to recognize on-screen text. This, along with the development of a local language text-to-speech engine, could give persons with visual disabilities wider access to digital content in the local language.

- Allow for persons with visual disabilities to take computer-based examinations

The option of taking computer-based examinations on machines belonging to the academic institution may allow persons with visual disabilities to take their examinations independently. Our respondents stated that use of unquali-

fied scribes for their examinations had led to lowered grades.

- Establish accessible digital mental health services

The establishment of digital mental health services are recommended, ensuring that the services are made accessible for persons with different types of disabilities. Despite stating that they felt depressed, no respondents noted the use of mental health services through digital devices.

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ANNEX 1: JAPAN'S ACCESSIBILITY PLAN

Five-Year Plan for Implementation of Priority Measures - Japan

(2) Living environments

2) Promotion of accessible housing and buildings

- All new public rental houses should be accessible
- To promote availability of houses in stock that are installed with railings, have wide corridors and sansdifferent floor levels

Target: 20% of all houses in stock by fiscal year of 2015.

- To promote construction of buildings whose structures are designed to meet requirements for fitted application of the Heart Building Law (applied to newly built or extended or remodelled floor space to be no less than 2,000 m2 respectively)

100%

- To develop newly placed government buildings under control of the Ministry of Land, Infrastructure and Transport accessible to persons with disabilities under the Heart Building Law

100%

- To develop railings, ramps, and tactile ground surface indicators for persons with visual disabilities; toilets for persons with physical disabilities; and ensure automatic

doors and elevators in all existing government buildings with service counters (with total floor space of no less than 1,000 m2 respectively) under control of the Ministry of Land, Infrastructure and Transport.

- To support prefectural governments in developing accessible public facilities.

3) Promotion of accessible public transportation system and walking space

- To promote removal of different floor levels, installation of tactile ground surface indicators for persons with visual disabilities, and establishing toilets for persons with physical disabilities (in case there are such facilities) at all railway stations, bus terminals, passenger ship terminals and airport terminals that handle daily passengers of no less than 5,000, on average

Target: 100% by 2010

- Of the above timetable, removal of different floor levels should have been completed by 2005:

Some 60% at railway stations

Some 80% at bus terminals

Some 70% at passenger ship terminals

Some 70% at airport terminals

- To promote availability of rolling stocks for accessibility improvement

Some 20% by 2005

Some 30% by 2010

- To promote availability of lowered-floor buses

Some 30% by 2005

100% by 2015

- To promote availability of non-step buses

Some 10% by 2005

20-25% by 2010

- To promote availability of passenger ships with improved accessibility

Some 25% by 2005

Some 50% by 2010

- To promote availability of aircrafts with improved accessibility

Some 35% by 2005

Some 40% by 2010

- To promote availability of taxis for the aged and disabled

2,600 vehicles by fiscal year of 2005

- To develop accessible main roads around major railway stations

53% by fiscal year of 2007

- To promote availability of toilets and parking spaces for persons with physical disabilities at service areas and parking areas of highways, and of Michi-no-Ekis (government designated roadside stations) along major trunk roads to be built

- To setup railings, gently-ramped slopes and similar facilities; and moderate embank-

ments and shore protections at waterfront plazas; and similar areas to be newly constructed along rivers under direct control of the government

- To develop facilities with railings, slopes, rest house, toilets and parking spaces for persons with physical disabilities at all new green areas near the ports available to all people
- To develop facilities available to all people in the woods in consideration of accessibility
- To provide the Geographic Information System including barrier/barrier-free information about public roads and streets

ANNEX 2

ASSISTIVE TECHNOLOGIES (ATS) IN EDUCATION FOR PWDS

ATs can support students who are blind or have low vision, in all academic areas as well as in an expanded core curriculum. The selection of devices is contingent upon a variety of factors. To begin the process of consideration, the condition of the student’s vision needs to be identified. Additional information should be acquired through the learning media as-

essment to determine the appropriate media format. For the purposes of this information, visual impairment is divided into three major categories – low vision, functional blindness/blindness, and cortical (cerebral) visual impairment . Each of these groups has specific characteristics that will govern the selection of appropriate assistive tools.

Group	Description
Low vision	An ocular condition where a person’s visual
•	Acuity ranges from 20/70 to 20/200 (legally
•	Blind) after best correction, or visual field
•	Subtends the angle of 50 degrees or less.
•	•
Functional blindness/Blindness	An ocular condition where a person perceives
•	Light or less, or is unable to efficiently use their
•	Residual vision.
Cortical (cerebral) visual impairment	A neurological condition related to the visual
•	Pathway where a person has difficulty in
•	Interpreting visual information.

Source: Wiazowski, 2009

WATI Assistive Technology Decision Making Guide

Area of Concern: vision

Problem Identification

Student's Abilities/Difficulties 5.	Environmental Considerations	Tasks 8.
<ul style="list-style-type: none"> <input type="checkbox"/> Print size <input type="checkbox"/> Reading visual or tactile medium <input type="checkbox"/> Legible handwriting <input type="checkbox"/> Navigating the computer operating system and programs <input type="checkbox"/> Identifying and finding details in pictures <input type="checkbox"/> Touch typing <input type="checkbox"/> Need for audio enhancement <input type="checkbox"/> Colour blindness <input type="checkbox"/> Photosensitivity <input type="checkbox"/> Activities of daily living <input type="checkbox"/> Participation in gym activities <input type="checkbox"/> Organization <input type="checkbox"/> Physical or motor-related issues 	<ul style="list-style-type: none"> <input type="checkbox"/> Desk space <input type="checkbox"/> Classroom space <input type="checkbox"/> Location in the room <input type="checkbox"/> Visual access of board work <input type="checkbox"/> Visual access of classroom presentations <input type="checkbox"/> Type of learning medium <input type="checkbox"/> Type of light and level of illumination <input type="checkbox"/> External noises <input type="checkbox"/> AT past and present 	<ul style="list-style-type: none"> <input type="checkbox"/> Reading <input type="checkbox"/> Writing <input type="checkbox"/> Note taking <input type="checkbox"/> Large group distance presentations <input type="checkbox"/> Visual activities <input type="checkbox"/> Computer-assisted tasks <input type="checkbox"/> Converting print into electronic format <input type="checkbox"/> Activities of daily living <input type="checkbox"/> Gym activities

Sensory Considerations		Narrowing the Focus
What sensory challenges does the student have that impacts learning? (i.e., visual, auditory, tactile)		Identify specific <u>task(s)</u> for solution generation
Solution Generation Tools & Strategies	Solution Selection Tools & Strategies	Implementation Plan
Brainstorming only. No decisions yet. Review solutions in respect to type of visual impairment and the area that requires additional support	Use a feature match process to discuss and select idea(s) from Solution Generation	All trials/services needed Formulate specific task objectives to determine effectiveness of trial <input type="checkbox"/> Training needed <input type="checkbox"/> Date <input type="checkbox"/> Length <input type="checkbox"/> Person(s) responsible
		Follow-up Plan
		Who & When Set specific date now.

Source: Assessing Students' Need for Assistive Technology, The Wisconsin Assistive Technology Initiative (2009)

ANNEX 3

Current and past portfolio of policy measures, initiatives and developments in the UK to promote employment amongst the disabled

The New Deal for Young People (NDYP) is a compulsory employment program for all young people aged 18-24 who have been claiming Jobseeker's Allowance (JSA) for six months or more (Meager & Hill, 2006). The program begins with a short, intensive period of advice and training in job search methods. Following this, participants must choose one of four options: a subsidized job; a place on the Environment Task Force (essentially a public job creation program in the environmental area); a placement with a non-profit employer; or full-time education or training.

New Deal 25 plus is a compulsory employment program for people aged 25 and over who have been claiming JSA for 18 months or more (Meager & Hill, 2006). It is delivered by public employment service Jobcentre Plus through a network of New Deal Personal Advisors (NDPAs) who offer a range of training, advice, guidance and subsidized work experience, including access to supported self-employment.

NEW DEAL FOR DISABLED PEOPLE (NDDP)

NDDP was introduced on a pilot basis in 1998, with two key elements: a personal advisor service, and a series of innovative schemes to help sick or disabled people return to work (Meager & Hill, 2006). As Meager et al. write, essentially, NDDP is a voluntary scheme for recipients of one or more of a range of incapacity related benefits, involving a package of individual job search advice and support (and follow-up in-work support for those entering employment), delivered by a network of 'job brokers' in the private, voluntary or public sectors, who should also work with employers in achieving sustainable job placements for participants.

Pathways to Work is a pilot scheme. The focus had been on the inflow to incapacity benefits, with a preventative emphasis. People making new claims for incapacity benefits have a 'work-focused interview', at which a screening tool is used to distinguish those likely to return to work of their own accord, from those who would benefit from further assistance (Beatlie, 2011).

DISABILITY EMPLOYMENT ADVISORS AND WORK PREPARATION

A key element of the frontline services for disabled people, provided by Jobcentre Plus, is the network of Disability Employment Advi-

sors (DEAs) based in local areas, who provide a range of support, advice and information to disabled job seekers, including the provision of information and referrals to other government programs and schemes, the arrangement of assessment and employment rehabilitation, and in the case of people with severe disabilities, they can offer a route to the WORKSTEP program of supported employment. It is delivered by a range of contracted providers who develop an action plan which has been established by the DEA with the client (Meager & Hill, 2006).

The Job Retention and Rehabilitation Pilot focuses on testing a range of workplace and health related interventions with people on short-term sick leave from work, with the objective of reducing their likelihood of becoming long-term claimants of incapacity benefits (Meager & Hill, 2006).

The Access to Work program (Thornton and Corden 2002) is for disabled people who need extra practical support to do a job. It covers both people taking up a new job, as well as people in existing jobs (as a job retention measure). It helps employers and self-employed people, through a system of financial grants, with the costs of special aids and workplace equipment, as well as adaptations to workplace premises and equipment.

TAX AND BENEFIT REFORMS, AND INCENTIVES

There is a large and complex system of benefits for disabled people in the UK. As per Meager et al., these fall into several broad categories:

Income replacement benefits:

These are benefits which are payable to replace lost income, where people of working age cannot work due to sickness or disability (Meager & Hill, 2006). The main ones are:

- Statutory Sick Pay (SSP): this is payable to employees by their employers for a period of sickness up to 28 weeks;
- Incapacity Benefit (IB): this is payable to people who have paid sufficient National Insurance Contributions (NICs) and are incapable of work.
- Severe Disablement Allowance (SDA): this is payable to people who have never worked or have not paid sufficient NICs to receive IB.
- Income Support (IS): this is the main form of means-tested social assistance for a range of non-working people (such as lone parents or elderly people). Disabled people can claim IS if they are unable to work (under the same rules as IB, above), and may then be eligible for a Disability Premium, payable on top of the basic benefit.

Benefits to meet the extra costs of disability:

- Disability Living Allowance (DLA): this is payable to people who need help with personal care or, supervision, or mobility.
- Independent Living Fund (ILF) and direct

payments from local authorities. The Independent Living Funds (ILFs) are government funded independent trusts which make cash payments to disabled people to buy their own personal assistance and so live independently in their own homes.

THE DISABILITY DISCRIMINATION ACT (DDA)

The main anti-discrimination statute in the UK, the DDA came into force in December 1996. According to the Act, there are two ways in which an employer might unlawfully discriminate against a disabled employee or job applicant:

- by treating him or her less favourably (without justification) than other employees or job applicants because of his or her disability, or
- by not making reasonable adjustments (without justification) if their employment arrangements or premises place disabled people at a substantial disadvantage compared with non-disabled people.

The gamut of the UK's employment related disability policy can be treated as an apt benchmark for a developing country like Myanmar to devise its policies accordingly. What would be sensible for Myanmar's policymakers and other stakeholders is to create the action plan with strategic goals supplemented along a time-scale that is achievable and realistic. Japan's Basic Program for Persons with Disabilities (2002), which was referred to in Chapter 4, is a good example of a formidable and visionary action plan.



Pro-poor. Pro-market.

www.lirneasia.net/disability