Mainstreaming disability and ageing in water, sanitation and hygiene programmes

A mapping study carried out for WaterAid UK

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Acknowledgements

Author: Hazel Jones, Water, Engineering and Development Centre (WEDC), Loughborough University, Leicestershire, LE11 3TU, UK.
QA Bob Reed, WEDC

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List of acronyms

CCBRT	Comprehensive Community Based Rehabilitation in Tanzania
CLTS	Community-led total sanitation
DPO	Disabled people's organisation
E&I	Equity and Inclusion
HI	Handicap International
IRC	International Rescue Committee
MDGs	Millennium Development Goals
NEWAH	Nepal Water for Health
NGO	Non-governmental organisation
ODF	Open defecation free
OHCHR	Office of the High Commissioner for Human Rights
RWSN	Rural Water Supply Network
UNHCR	United Nations High Commissioner for Refugees
WASH	Water, sanitation and hygiene
WEDC	Water, Engineering and Development Centre
WHO	World Health Organisation
WSP	Water and sanitation programme
WSSCC	Water Supply and sanitation Collaborative Council
WSUC	Water and sanitation user committee

Note on use of language

The term 'disabled people' is used most frequently in this report, in line with the UK accepted practice (Office for Disability Issues 2013, UK DPC 2013), as well as 'people with disabilities' or 'persons with disabilities' which are accepted international usage (UN Enable 2013).

The term 'older people' is used in preference to 'elderly' or 'old' people (HAI 2013). However, where direct quotes have been used, or summary has been made from accounts in documents or from informants, their terminology has not been changed.

1.   Introduction

In March 2011, the SHARE (Sanitation Hygiene Applied Research for Equity) Consortium, WaterAid, and the Leonard Cheshire Disability and Inclusive Development Centre brought together 22 researchers and policy-makers with expertise in water, sanitation and hygiene (WASH), equity, inclusion and disability, to share knowledge and experience, and to develop a research programme that would contribute to improving access for disabled people to sanitation and hygiene services (Collender et al 2011).

A number of research priorities were identified, one of which was to 'evaluate interventions designed to benefit disabled people within mainstream sanitation approaches, such as Community-led total sanitation, to document good practice' (ibid.)

With this aim in mind, WEDC was commissioned by WaterAid to carry out a desk study to present an overview of the current state of disability and ageing issues in WASH, **from the perspective of the WASH sector**. This report presents the findings from this study. Both disabled and older people were looked at together, because many frail older people, although they may reject the label 'disabled', experience impairments that limit their daily activities, which result in them facing similar kinds of barriers to accessing WASH.

2.   Background

It is becoming apparent that progress on MDGs is not happening in an equitable way, that averages mask huge inequities, and that the poorest in the world have scarcely benefited from improvements in water and sanitation provision (JMP 2012, International Development Committee 2013).

The current MDG focus on numbers and coverage "implies neglecting, leaving out, not serving, the more difficult, more challenging, and more deprived 'last' whose need is so often greater. For achieving targets, those who are last are not cost-effective" (Chambers 2012:14).

Amongst these 'last', disabled and older people are disproportionately represented. Over 1 billion people globally have some kind of impairment (WHO/World Bank 2011), and are more likely to be poor than the general population (Hosseinpoor et al, 2013). 600 million people aged over 60 currently lack income security, the majority of whom are women (OHCHR, 2012); within 10 years, there will be more than a billion older people worldwide (HAI, 2013).

Over the last two decades, issues of equity in the water, sanitation and hygiene (WASH) sector have mainly referred to access for women and children (Derbyshire, 2012). The last few years have seen an increased breadth to the equity and inclusion debate, including various dimensions of inequality and inequity, including spatial (informal settlements, homeless people living on the street), social (gender, generation), health-related (disability, ill-health), and economic (low-income communities and households) (Mitlin 2011).

In many poor urban communities, sanitation facilities tend to be communal, and often poorly maintained fee-paying facilities, unaffordable to the poorest. Furthermore, 'elderly members of the community, the sick […] and children find such facilities difficult to access and many people end up reverting to unsafe means of excreta disposal such as 'flying toilets'', ie defecating in plastic bags which they dump in ditches or throw on the wayside (Mulenga 2011:13).

2.1 Gaps in knowledge

There is an increasing body of literature related to access to WASH for disabled and older people. The problems caused by this lack of access are widely documented for disabled people (eg Jones et al 2002, NEWAH 2004) including the impact on their health and well-being (Groce et al 2011). To a lesser extent, comparable literature is beginning to emerge for older people (HAI, 2000, Sleap 2006). In terms of solutions to the problems, the most widely documented are 'hardware' solutions, ie the technology required to improve physical accessibility and use, which appear to be straightforward (eg Jones and Reed 2005, David et al 2008, Norman 2010, Jones et al 2012), and do not have to be expensive (Jones 2011).

Less has been documented about the 'software' aspects of service delivery: what changes need to be made in the way organisations work, and in the way programmes are planned and implemented, to deliver accessible and inclusive services. A range of general programming guidance is available, mainly produced by the disability/ageing sector, about mainstreaming disability/ageing into programme approaches, (eg HAI 2000, WHO 2008, CBM 2012). However, the devil is in the lack of detail – on consultation with disabled and older people, on appropriate information about low-cost technology options, on inclusive design and its cost, on capacity building and attitude and behaviour change, etc (Jones et al 2012).

Much of the learning to date has been through small-scale pilot projects, usually implemented by WASH NGOs, involving high time and resource input. However, in the long term it is unsustainable for implementers to install accessible latrines on an individual basis, or to carry out iterative consultations with disabled users every time a handpump is installed.

So far, disability-related discourse and documentation has been largely isolated from the main trends and debates in the WASH sector, such as community-led sanitation (CLTS), sanitation marketing, self-supply of water, and subsidy/non-subsidy. So how do the technology solutions that we know are effective get put into place as part of an ordinary WASH programme?

3. Purpose of the study

3.1 Original purpose

A desk study was designed, the original aims of which were to identify:
   a) The extent to which disability and ageing issues are being genuinely incorporated into mainstream WASH programming and practice.
   b) The benefits and drawbacks of this, for disabled and older people, for wider communities and for programmes and implementers.

The first step in the study was to review existing literature in this area, both published and unpublished, by:

- A systematic search of academic databases – this confirmed that published literature on the issue is sparse.
- A search of grey literature produced by WASH implementers via relevant websites.
- A call for information circulated via global WASH networks (see Appendix 2 for the questions asked).
- Follow-up correspondence with informants (where possible) for more detailed information.

3.2   Initial findings

To achieve the original aim of the study would require a focus solely on information that described genuinely mainstreamed initiatives, ie initiatives that constituted 'an integral dimension of the design, implementation, monitoring and evaluation of policies and programmes' as defined in Box 1 below.

Very little information was received that completely fulfilled these criteria, so the original aims proved unachievable. There is plenty of anecdotal evidence of benefits to individuals from improved access to WASH, but limited examples of genuine mainstreaming and insufficient information to be able to analyse the impact on WASH programmes more broadly. Nevertheless, a significant quantity of information was identified that could be considered 'on the way towards' inclusive programming.

Box 1: Mainstreaming – a definition

"Mainstreaming a [disability] perspective is the process of assessing the implications for [disabled persons] of any planned action, including legislation, policies and programmes, in all areas and at all levels. It is a strategy for making [disabled people's] concerns and experiences an integral dimension of the design, implementation, monitoring and evaluation of policies and programmes in all political, economic and societal spheres so that [disabled and non-disabled people] benefit equally and inequality is not perpetuated."

Source: UN ECOSOC (1997) cited in Miller and Albert (2006) with disability substituted for gender.

3.3   Revised purpose

Most of the information collected during the study demonstrated different aspects of inclusive practice to a greater or lesser extent. The question was how to represent this range of practice in a way that acknowledged the progress that had been made. The revised purpose was therefore to provide a conceptual framework with which to present the current state of play relating to mainstreaming of disability and ageing issues in the WASH sector, using the information collected.

4.   Current WASH contextual factors

In considering a possible framework to represent the available information, several external factors were considered, including the human rights to water and sanitation, the debate about MDGs and monitoring progress, and parallels with gender mainstreaming.

4.1   Human rights to water and sanitation

The concept of the 'progressive realisation' of the human rights to water and sanitation means that countries have a duty 'to take deliberate, concrete, and targeted steps toward meeting their Covenant obligations, while recognising that the full realisation of human rights is a long-term process that is frequently beset by technical, economic and political constraints […] it acknowledges the fact that full realisation is normally achieved incrementally, and that improved conditions are always possible' (de Albuquerque and Roaf 2012:23).

4.2   MDGs and inequitable progress

Although it has been declared that the MDG target for water has been met, this is based on an average of 89% global coverage of improved drinking water, which is now recognised to mask huge disparities (JMP 2012:27). For Sierra Leone, for example, coverage is 55% overall, but in rural areas this drops to 35%, and for the poorest quintile in rural areas only 10%.

Turning to the sanitation MDG, disparities in progress are even starker. Disaggregation of data according to wealth quintile shows that the poorest 40% in South Asia have barely benefited from improvements in sanitation (Figure 1). The data currently used to monitor progress on the water and sanitation targets is collected via national surveys, MICS (multiple indicator cluster surveys) and DHS (Demographic and Health Surveys). Intra-household data such as gender or education of head of household are routinely collected; disability-related data is only sometimes collected (Figure 2). Moreover, sanitation coverage is only monitored at household level, ie if the household has access to and uses a latrine. Data that tells us whether all members of the household use the latrine is not collected.
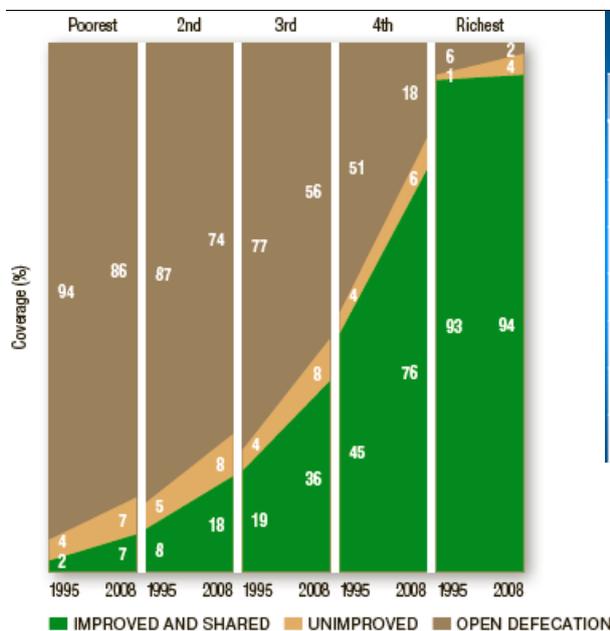
Figure 1: Sanitation progress in South Asia disaggregated by wealth quintiles
(JMP 2012:30)

Different dimensions of equality

Dimensions	MICS/DHS
Spatial (geographic, urban/rural, sub-national, slums,…)	√
Wealth (based on asset index)	√
Gender	√
Religion/Caste/Ethnicity/Language	√
Education of head of household	√
Disability	(sometimes)
Stigma (PLWHA, Work, etc.)	-

Figure 2: Different dimensions of equality included in national surveys
(Trevett and Luyendijk 2012)

The debate about what replaces the MDGs after 2015 is ongoing, but there is a consensus that counting is not enough. A number of efforts are being developed to monitor and measure progress, eg the Index of Equality Betterment (Satterthwaite et

al 2012) and Luh et al (2013)'s index to measure progressive realisation of the right to water, although these are both for monitoring and comparison at national and international level.

On a more practical level, Satterthwaite et al propose a checklist designed 'to ensure that non-discrimination and equality are fully addressed in the post-2015 goals, targets, and indicators concerning water, sanitation and hygiene' and that it 'will be useful in the design of national-level monitoring and could be used by States, civil society and other stakeholders.' (2012:3)

It is suggested that to enhance equality, not only direct services need to be addressed, but also 'measures such as awareness-raising, the identification of good practices, the promulgation of building codes, and promotional activities' (ibid:8-9). The concepts of progressive incremental implementation of achievement and ways to monitor this can be usefully applied to this study.

4.3 Parallels with gender mainstreaming

Parallels can be drawn with gender mainstreaming, which is 'a long-term, dynamic process of change, with recognisable phases' (Derbyshire 2012:417). These phases depend on a number of factors, including time spent engaged on mainstreaming (for some organisations this may be 10 years or more), and activities that include 'internal influencing, reviews, policies and strategies, awareness-raising and skill development, systems and incentives for planning and monitoring, and promoting equality at work' (ibid:409).

For example, organisations at an early stage of mainstreaming appear to be characterised by 'gender advocates as volunteers […] operating from the margins', informal gender networks, experiencing continued resistance from staff, with 'achievement individual and incremental'. Organisations working in this area for 10 years or more, are more likely to have 'advocacy and network roles formally embedded in management structures', 'strong corporate commitment', 'measurable indicators and accountability mechanisms at senior management level, systematic analysis and planning' (ibid:409).

Applying this analysis of gender mainstreaming to this study indicates that we need to look at what is happening not only at programme level, but also at an organisational level. However, analysis also indicates that this is a process that does not occur naturally, hence the value of drawing the parallel, to highlight the additional institutional dimensions of change that are likely to be needed as a pre-requisite to the mainstreaming of inclusive practice in WASH.

5. Mainstreaming as a continuum

Drawing on what has been learnt about the concept of progressive implementation, and stages of mainstreaming gender in development, a continuum was conceptualised. The continuum was used to categorise information about current practice according to where it appears to be in terms of progress in mainstreaming disability and ageing in WASH.

For ease of representation, this continuum has been broken down into stages that are moving towards the long-term vision of fully inclusive WASH provision (see Figure 3). Three stages have been identified, but the diagram attempts to represent the fact that further stages – which are yet to be identified – will be needed to keep making progress towards our long-term vision.

The following sections describe examples of the kind of activities that organisations are likely to be carrying out at each of these stages based on information collected during the study.

Figure 3: Stages on a continuum towards WASH organisations mainstreaming disability and ageing (WEDC 2013)
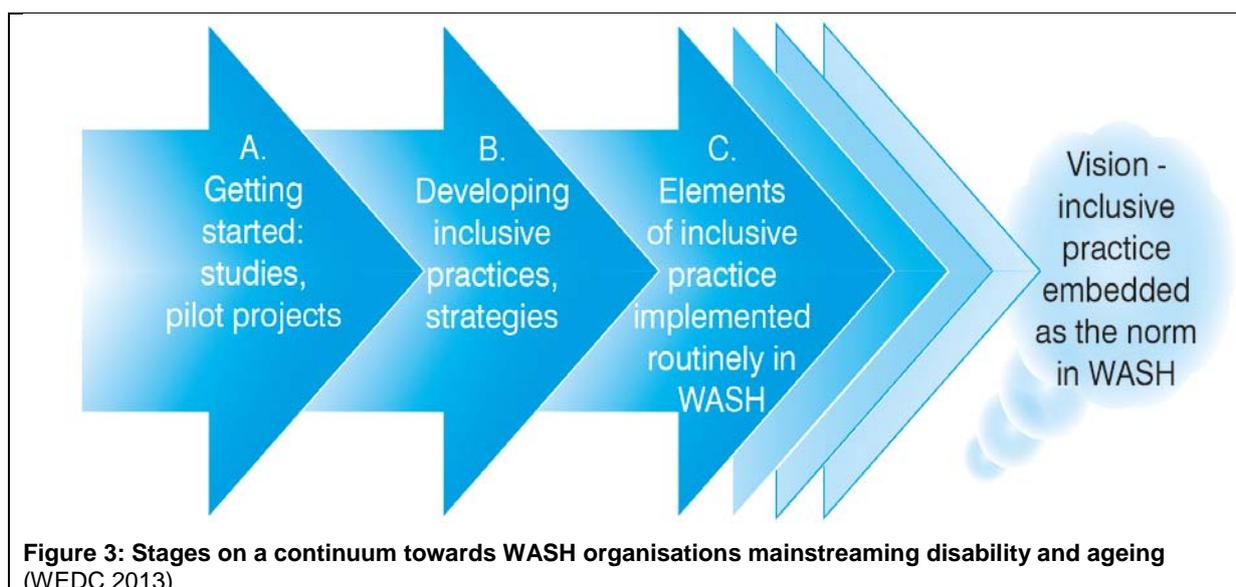
5.1 Stages in the mainstreaming continuum

Stage A: Getting started
Stage A is characterised by activities that focus on learning and trying out new ideas, which in practical terms might include:

- **Studies and situation analyses** to gather information and improve understanding of the problems of disabled and older people. Examples include studies by WaterAid in different countries, eg an early study in Nepal to understand the problems faced by disabled and older people, pregnant women and overweight people when using latrines (NEWAH 2004).

- **Small pilot projects** with a focus on practical learning about accessibility and inclusion, often involving collaboration between WASH and disability agencies/elderly associations. These may or may not result in learning being documented, and the recommendations or guidance produced to be applied to the wider programme. WaterAid have again been prolific:
  o In Mali a pilot project in a rural village, in collaboration with Sightsavers International, helped design and construct wells and toilets that were accessible for people with visual impairments. This was broadened to include other people with access problems, including frail older people (Russell 2008).
  o Hygiene promotion flashcards incorporating images of disabled people have been developed for use in hygiene activities with groups of disabled people

and their families. One set is designed for an urban context and one for rural context (WaterAid Bangladesh 2010).

- **Advocacy documents**, an example of which is a recent briefing note focusing on Timor Leste (WaterAid 2011a).

Stage B: Developing institutional approaches to inclusion
By Stage B, a more coherent organisational approach to equity and inclusion is emerging, building on learning from Stage A. Activities are likely to include initiatives aimed at further learning, information sharing and changing people's thinking and behaviour, including:
- **Strategic planning/roadmap:** disability and ageing specifically included in aspects of organisational policy and strategy, such as WaterAid Equity and Inclusion (E&I) framework (Gosling 2010).
- **Awareness raising/advocacy activities** aimed at changing people's thinking and behaviour. Examples include WaterAid practical awareness-raising with all staff globally (WaterAid nd); a consensus building workshop in Ghana bringing social welfare/disability sector together with WASH sector (WaterAid and NCPD 2010).
- **Training materials:** practical training by WEDC for WaterAid staff in all country programmes, with open source training materials developed (available from WEDC 2013).
- **Advice and guidance about mainstreaming disability** within WASH services, at this stage usually presented separately from main WASH guidance. Examples include
  o A WEDC resource book cataloguing practical technology options to improve accessibility of WASH facilities at household level (Jones and Reed 2005).
  o Guide to mainstreaming disability in international development, aimed at practitioners. It includes sector specific sections, including WASH (CBM 2012).
  o In the field of disasters and emergencies, the Ageing and Disability Task Force in Pakistan have produced practical guidance including WASH sector technical information (Awan nd);

- **Piloting inclusive WASH activities within a wider WASH programme.**
  In Uganda and Zambia, WaterAid and its local partners are piloting inclusive WASH activities within a broader WASH programme. The purpose is to learn how to make routine project activities more inclusive, identify additional activities that may be needed, and interventions that are effective in improving provision for disabled and older people and what additional costs are incurred (Wilbur et al, 2013).
- **Developing inclusively designed facilities**: WaterAid Madagascar collaborated with Handicap International to design and construct accessible public latrines and water points, using an iterative and consultative 'inclusive design' process. A key part of the process was an accessibility audit by disabled people to assess whether the facilities were accessible and usable for intended users, and identify any problems. Designs were then adjusted and further facilities constructed based on the findings of the audit (WaterAid Madagascar 2010b).

Stage C: Establishing institutional commitment and practice
By Stage C, a range of elements of inclusive practice are now routinely implemented as part of the norm, and/or a range of elements are in place as part of a coherent

strategy towards embedding E&I in the WASH organisation and programmes. This might include staff induction procedures, capacity building, rolling out of inclusive designs, consultation procedures, partnerships with disability/elderly associations. Only a few examples are available. These include:

- World Vision now uses the inclusive design of handpump surround as the norm throughout their Mali programme (Kamban & Norman, 2013).
- WaterAid Bangladesh has begun to incorporate inclusive design of facilities in their wider WASH programme. For example, a communal latrine complex for a sweeper community in Tangail District incorporates features that are user-friendly for children, women and wheelchair users, including handrails, raised seats, and a spacious cubicle (Ahmed, 2013).

Long-term vision: Embedding inclusive practices
The long-term vision is for equitable and inclusive practices and procedures to be embedded as standard in all aspects of WASH programmes and services. There is no evidence that this has yet been achieved by any WASH implementers, anywhere in the world.

5.2   Anomalies and inconsistencies caused by gaps in information

The information in the preceding sections and in Appendix 2 has been used to attempt to categorise interventions according to stages of the mainstreaming continuum. It should be remembered that the focus of this study was on programme activity rather than on organisational or institutional development. As a result, the activity descriptions do not always provide information about the broader organisational context of the intervention, which is likely to have a bearing on the extent of mainstreaming it illustrates, and thus how the activity is categorised.

Let's say, for example, that in Community X, raised toilet seats have been installed for all those who need them. If there is no information about it being implemented in any other community, it is assumed that this is a pilot project, and is categorised as Stage A.

If the information explains that the process to develop or install the seats has been part of a broader sanitation project, eg supporting all users and households in a given community to develop solutions according their own needs, using information provided as part of a community consultation, then it is categorised as Stage B.

If this inclusive implementation process is now standard procedure, used by the organisation throughout its sanitation programmes, then it is categorised as Stage C.

It is therefore clear that programmatic and institutional aspects of mainstreaming are interlinked and cannot be treated separately. Progress on the institutional dimensions of mainstreaming needs to accompany programmatic implementation. Figure 4 shows the mainstreaming continuum from an **institutional perspective**.

Figure 4: Stages on a continuum towards WASH organisations mainstreaming disability and ageing including the institutional dimension
(WEDC 2013)
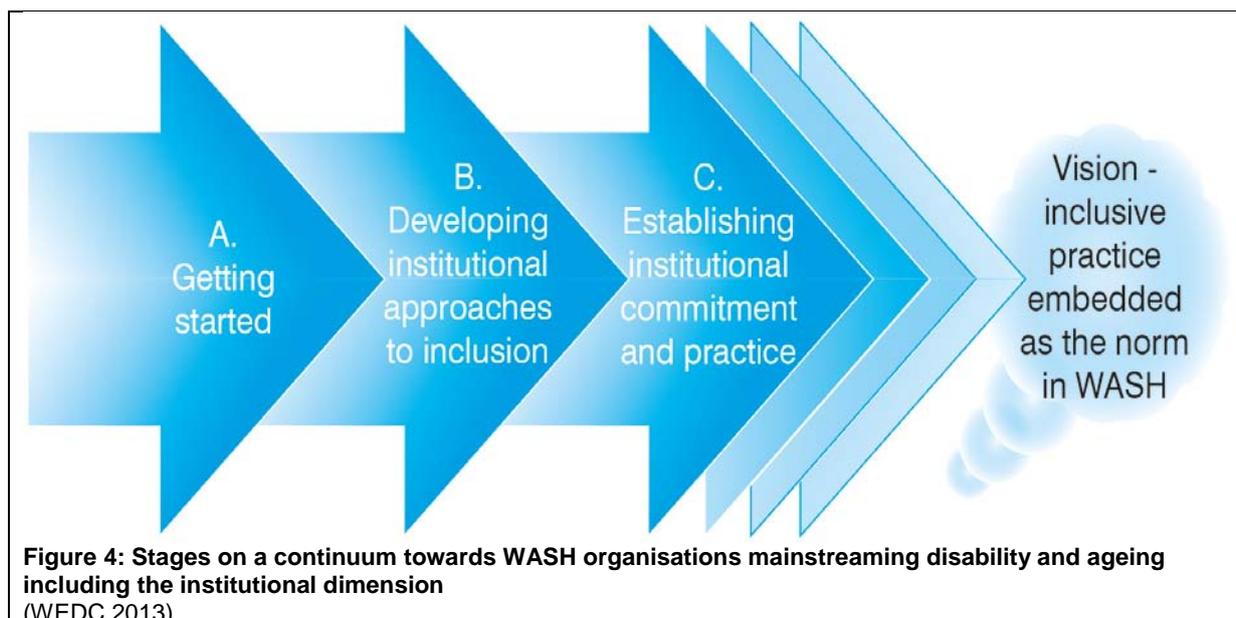
6.   What has been learnt about progress on mainstreaming

6.1   Extent of activity

It would be easy to feel disheartened by the apparent lack of progress on mainstreaming of disability and ageing in WASH programming, until a historical 'progressive realisation' perspective is taken.

In 2002, when the author first started researching access to WASH for disabled people in low-income countries, no published academic literature was found on the issue. At that time, a call for information was circulated via WASH networks and disability networks globally. The overwhelming majority of responses received were from the disability sector, mostly detailing the problems of access to WASH. No information was received from the WASH sector (Jones et al 2002).

In 2012, ten years later, a similar review of academic literature found approximately a dozen documents, plus a significant quantity of 'grey literature' produced by practitioners and found via WASH websites, much of which there is not enough space to refer to in this report. The call for information this time was deliberately **only** circulated to the WASH sector, and referred specifically to mainstreaming of disability and ageing within WASH. Over 60 responses were received from the WASH sector in response to the call. Some provided information about contacts or organisations that they knew were addressing disability or ageing issues. Others had no information, but nevertheless had taken the time to reply and said they would make enquiries.

6.2   Types of activity

See Appendix 2 for a representative selection of information that was collected during the course of the study.

6.2.1 Sanitation, water supply and hygiene

The majority of information received was related to sanitation both at household and institutional levels. The most consistent progress appears to be in school sanitation, where there are a number of examples of coordinated national efforts underway, at various stages of consultation, to produce inclusive designs of school latrines (eg Appendix 2, section 4). Numerous examples are also available of efforts to improve accessibility of household sanitation, either as part of a mainstream sanitation programme or in separate pilot projects. Increasing attention is being paid to the process of informing and consulting communities on the available options.

Less information has been found on accessibility of water supplies, whether because fetching water can be delegated to other family members, or because it is a task that falls to women more than men, whereas no-one can avoid defecation.

Information about hygiene is even less available – either provision (nothing) or promotion (one example). This is clearly an area where more attention needs to be paid.

6.2.2 Disability and/or ageing?

The overwhelming majority of information describes activities to improve access and inclusion for disabled people and there is very little information that referred to activities aimed **solely** at older people. However it is clear from reading the information that amongst those disabled people, many are frail older people experiencing limitations associated with the ageing process, including failing eyesight, reduced mobility and so on. It appears to be that for WASH implementers, improving access for disabled people is a useful indicator of inclusion, as it also includes frail older people who may be experiencing exclusion from facilities and services.

6.3 Progress on continuum

A (subjective) interpretation of the difference between 2002 and 2012 is that, aside from web networking having become more widespread and effective, the issue of disability inclusion is higher on the agenda than it was a decade ago. Even where nothing may be happening in practice, these issues are more likely to be on the radar of WASH personnel, who are far more likely to recognise that inclusion is a legitimate concern and part of their responsibility.

Taking a historical perspective, considerable progress has been made in the last ten years along the continuum of progressive realisation of inclusive WASH. In addition to the greater recognition and attention to the issue, progress has also been made in terms of the volume and type of activities. Ten years ago, there were a few isolated activities, often initiated by disability agencies. In 2012, not only are there a far greater number of activities, agencies, countries and beneficiaries involved, these also take a form that is more likely be inclusive, more likely to be part of systematic implementation, and more likely to be implemented by the WASH sector (see Figure 5).

Nevertheless, in the context of overall WASH programming, these activities are a mere drop in the ocean (values are indicative only).
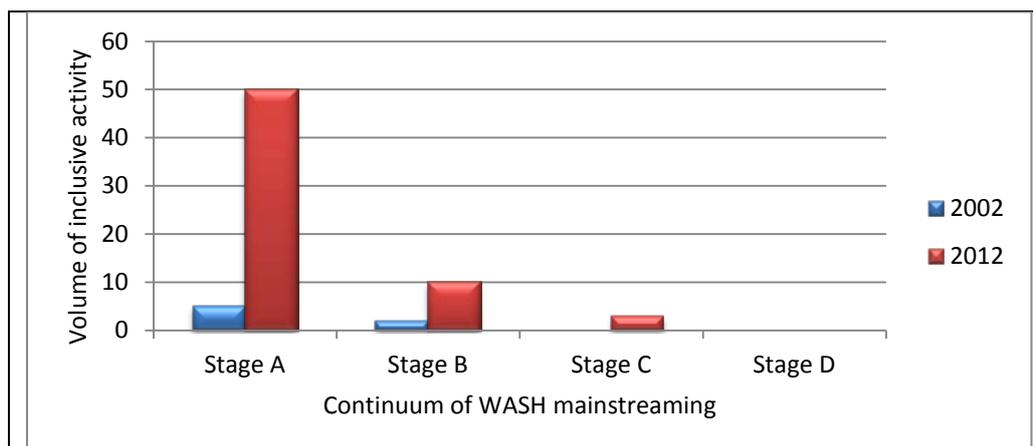
Figure 5: Progress on mainstreaming disability/ageing in WASH over the last decade.

7. How could the continuum framework be used?

The continuum described in section 4 provides a theoretical framework to review current practice for mainstreaming disability and ageing in WASH. It is a work in progress, but has already been trialled with groups of WaterAid programme staff: in a webinar with participants from six different country programmes in Africa and Asia, with WaterAid staff and partners in Zambia, and with a WASH sector audience at the 36th WEDC Conference in Nakuru (July 2013).

The overall consensus is that the continuum is helpful for staff to analyse where they are in terms of progress on mainstreaming, where they need to get to and how. Based on this feedback, it is proposed that, with refinement, it could provide a practical tool for WASH implementers to:

- **Review progress on mainstreaming of E&I as a whole**, not only of disability and ageing issues. It can help identify whether activities are heading in the desired direction, moving forwards or regressing, and identify gaps or unevenness in practice.
- **Plan** for both the short-term, by identifying what steps to take next, and the longer-term, by identifying strategic goals and how to achieve them.
- **Develop further practical tools for planning and monitoring** progress. Through discussion with practitioners, a full matrix could be developed detailing a comprehensive list of programme aspects, with an indication of what they look like along the mainstreaming continuum. This could be used to audit current programming and practice, with a focus on the organisational and institutional developments that are necessary to ensure sustainability of programme level learning and changes.
- **Make sure progress isn't taken for granted.** Gains can peter out or even go backwards for a variety of reasons, such as staff changes, new organisational priorities, or simply through complacency. The continuum can be used to highlight areas of weakness, increase institutional resilience and reduce the risk of this happening.

8.   Conclusion

Presentation of the information generated by this study as part of a continuum is designed to acknowledge the progress that is being made by pioneering implementers in promoting inclusive WASH, but also to show that a one-off project is not an end in itself. As pointed out by de Albuquerque and Roaf, 'A good practice may exist in isolation, but for impact and sustainability, good practices must be supported through a system of measures that ensure the long-term realisation of the rights to water and sanitation.' (2012:36)

It could be argued that no country in the world can claim to have genuinely achieved equitable and inclusive WASH provision, and that there is always further progress to be made. This report provides merely an indication of where we currently are in terms of mainstreaming disability and ageing, and where information is currently lacking. The author acknowledges that it raises as many questions as it answers, with the expectation that it can provide a starting point and structure for discussion of ways forward.

Appendix 1   Call for information

Initial questions

Do you know of any examples of general mainstream water sanitation or hygiene programmes that have attempted/are attempting to address issues facing disabled or older people as an integral part of the programme (either as a formal part of the programme, or informally eg on individual initiative)? What was the result? What impact did this have – whether positive or negative - on disabled people and their families?

I'm interested in what has **not** worked as much as what **has** worked.

I'm interested in anecdotal accounts, which often do not make it into official reports. This study is not looking at separate disability-focused projects.

Please reply in any way you can, with a paragraph in an email, or with a reference to a relevant document, or a link to a blog, or the name of person who has more information. Please also indicate if you are willing to be contacted for more detailed information, either by email, phone or Skype.

Appendix 2: Mapping of WASH and disability/ageing activities

This section presents a representative selection of information about inclusive WASH activities collated during the study, including from published literature, from 'grey' literature (including documents sent by email, or found on WASH websites and blogs), and from personal communication, including email correspondence, Skype and phone conversations.

It can be used by practitioners looking for ideas of how other practitioners have addressed issues that they may be struggling with, for practical ideas of what they could apply in their own work, and for how they could progress towards more inclusive practices.

The information is grouped according to aspects of water, sanitation or hygiene programming. Where enough information is available, examples are followed by a suggested analysis of which stage in the continuum from A to C they fall into and why. In some examples, all boxes from A to C are completed. This is because the information in the example describes a series of increasingly mainstreamed activities, often taking place over a number of years. Where boxes are left blank, this indicates that there is no activity judged to have reached that particular stage of mainstreaming.

9. Water points

In general the documentation about making water points accessible is limited.

9.1 Reducing distance to the water point

Anecdotal evidence from several sources illustrates the benefits for disabled and older people of simply reducing the distance to water points.

An elderly blind woman in Nepal reported that it previously took her an hour and a half to collect water from an unprotected water source, whereas now having a water point about 20 metres from her front door was 'blissful' (author's field-notes).

In Cambodia, Mrs Nourn, who is blind, would previously spend a whole morning fetching four buckets of water from the river, down a steep slippery river bank, guided by one of her children. Now with their own household water point, the water is better quality, the family are sick less often, and her children attend school more regularly (Jones and Reed 2005:193).

9.2 Re-designing the water point installation

The next effective approach to improving accessibility is to modify the surrounding area around the abstraction point, to make it easier to get to, and for users to use it more easily.

9.2.1 Mali – World Vision

Accessible handpump infrastructure is now implemented as standard throughout World Vision in Mali (see Figure 6 and Figure 7 for photos of the handpump aprons completed in 2012 by the local mason's association in Chiwara District). The

modified designs include ramp access and widened entrances, plenty of circulation space around the handpump, and a seating block for those who find it difficult to stand to operate the pump (Figure 8).

Process to achieve this: These changes came about as a result of a three-year research collaboration between World Vision Mali and Messiah College in the US (Norman 2010). The findings from the research are now being applied throughout World Vision's WASH programme in Mali.

Costs: The criteria for improving the accessibility of the water point design was that no additional cost should be incurred, so any changes proposed should be within the current budget. For example, the surrounding walls were made thicker and thereby stronger, but lower than the previous design. This allows the wall to be used as a mid-point when lifting heavy water containers to the head ie lifting from floor to wall, then from wall to head (Figure 9). It must be said however that the budget for a standard waterpoint installation (concrete slab, protection wall, ramp, drainage channel, soak pit) is higher than in many countries - approximately $1,500 USD.

Figure 6: Accessible handpump apron, Moribila Ziékan, showing access ramp
(World Vision Mali)

Figure 7: Accessible handpump apron, Moribila Zounoukan. Seating block is visible
(World Vision Mali)
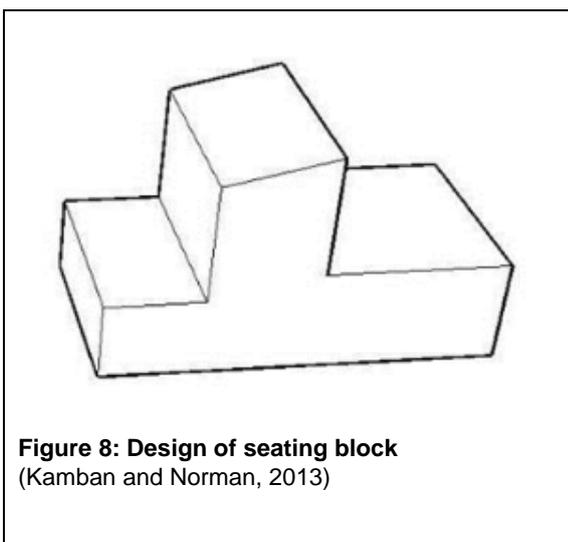
Figure 8: Design of seating block
(Kamban and Norman, 2013)

Figure 9: Low enclosure wall can be used as mid-point for resting water container.
(Norman 2010)

Stage A	Stage B	Stage C
Situation analysis, participatory research, piloting and testing of technical options.	Development of inclusive designs of handpump aprons.	Routine implementation of inclusively designed handpump aprons.

9.2.2 WaterAid Madagascar

WaterAid in Madagascar have produced a guidance manual on accessible water points (WaterAid Madagascar 2010b) – see Figure 10 and Figure 11 for examples. Changes have been made to the surrounding installation of the water point – ramp access, guide kerbs, widened entrance, enlarged circulation area, not to the technology (handpump or tap) itself.

Figure 10. Example of accessible water point showing wide circulation area (WaterAid Madagascar 2010b).

Figure 11. Design of accessible water point (WaterAid Madagascar 2010b).
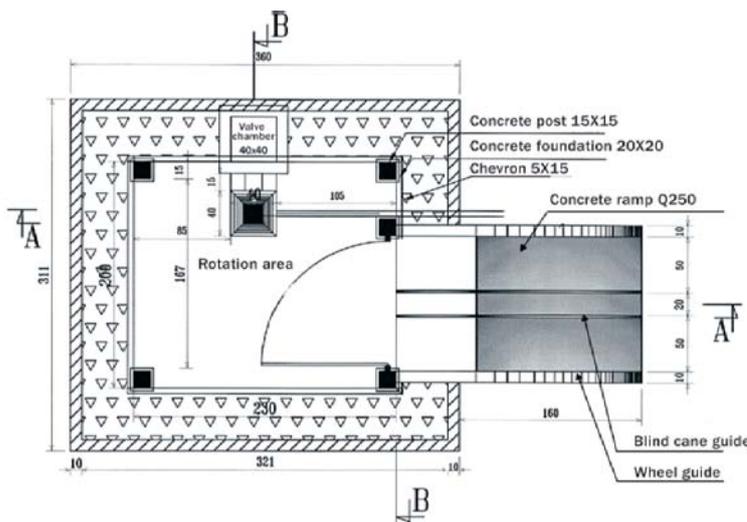
The manual clearly presents the iterative process of developing the new design, providing an excellent resource for others who are interested in the inclusive design process.

Process to achieve this: the development process involved collaboration with Handicap International (HI) and a local disabled people's organisation (DPO), through a series of steps: an initial situation analysis (WaterAid Madagascar 2010a), capacity building on inclusive design from HI, an iterative process of design, construction, review by disabled people using an accessibility audit (WaterAid Madagascar 2011), re-design and construction.

Issues arising:
- **Cost:** the additional cost of a new-build accessible waterpoint is 6% higher than a previously used design. For rehabilitation works, the cost is an additional 25%.
- **Limits to accessibility** are pointed out, in terms of location, quality of construction and individual needs.

Stage A	Stage B	Stage C
• Situation analysis • Participatory consultation	• Capacity building on accessibility • Partnership • Participatory development (construction, testing and adjustment) of inclusive designs of handpump aprons	To reach this stage, depends on the extent to which the designs are used routinely in WaterAid supported programmes.

9.2.3 Timor Leste

The rural water supply and sanitation programme (BESIK) supported by AusAID, has produced rural water supply guidelines, accompanying which is a technical note on the location and design of accessible communal tapstands (Besik nda). According to Clark (2012), all tapstands (number not stated) constructed under the BESIK programme have complied with this technical note.

Process followed: Collaboration between the BESIK programme and The Leprosy Mission, a disability organisation, began with a situation analysis (Smith 2010), followed by a workshop that brought disability and WASH sector stakeholders together. A project to increase awareness and understanding about disability and WASH then followed (described in section 15.2).

Issues arising: Clark notes that uptake of the design for Government-funded systems or those implemented by other NGOs has been limited. One concern expressed is that while the tapstand itself may be accessible, its location may still be inaccessible to wheelchair users, given the narrow dirt tracks in East Timorese villages.

This is a point echoes WaterAid Madagascar's intervention noted in section 1.2.2 above, and it is also found in the accessible school WASH discussed in section 4.2.5.

Clark responds to this objection by emphasising the benefits of inclusive design to other users: 'in discussions […] older people, mothers carrying babies have expressed that the ramp is useful.' She also acknowledges the need for:

- Work with partners on the **location** of the tapstand itself.
- Support for **improved pathways** to water points, particularly where there are homes with disabled people.

Stage A	Stage B	Stage C
• Situation analysis • Participatory consultation	Development of inclusive designs of handpump aprons	Routine implementation of inclusive designed handpump aprons within the BESIK programme

9.2.4 Burkina Faso

Collaboration between a WASH provider and local DPO has resulted in 10 wheelchair accessible water points being installed in Tenkodogo town (Kpehounton and Serge 2012). Changes were made to the design of standposts, based on suggestions from disabled people at consultation meetings. These changes include access ramps, handrails for support, and lower taps (Figure 12).
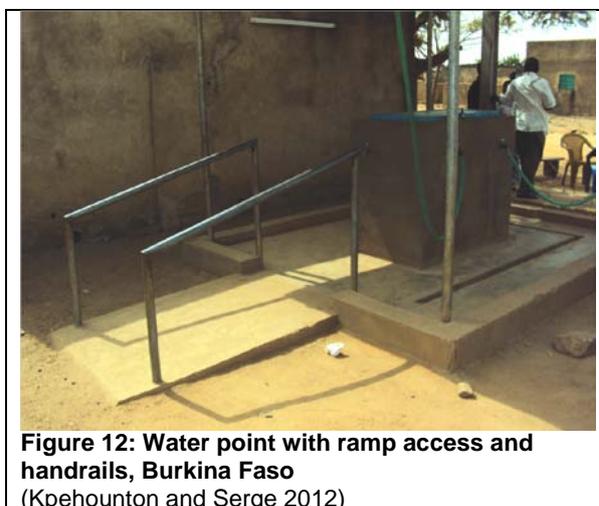
Figure 12: Water point with ramp access and handrails, Burkina Faso
(Kpehounton and Serge 2012)

Enabling factors:

- Support from the municipal authorities and the water company.
- Local NGO groups facilitating community meetings, participation and consultation with disabled people on the design.
- Close monitoring of construction by local NGO group. Initially construction was started without reference to the new technical design, so close supervision and monitoring allowed this to mistake to be remedied at an early stage.

Stage A	Stage B	Stage C
Pilot project (based on available information)	-	-

9.3   Modifying the abstraction technology

Only one example is known of technology adaptations. Messiah College research in Mali has designed and tested a number of different modifications to the handpump handle to improve ease of use. After several iterations, a 'p' shaped handle has been found to make it easier to operate from either the front or the side (Figure 13).

9.4   Laundry/washing areas

Two examples have been found of redesigning laundry/ clothes washing areas.
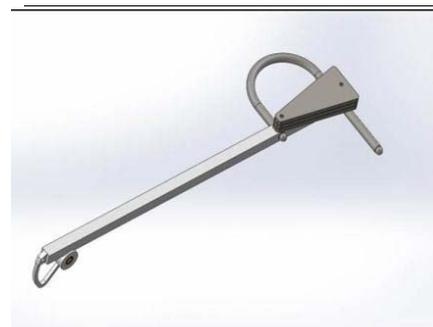
Figure 13. Design of adapted 'p' pump handle. User sits on 'U shape' side
(Kamban & Norman 2013)

9.4.1 Timor Leste

A two-page briefing note, *Clothes washing facility – Asking women what they want*, (BESIK ndb) describes the benefits and potential problems of providing laundry facilities near a water point, advice on consulting women, and includes images of two design solutions, both with a raised laundry slab and seating arrangement (Figures 14 and 15).

9.4.1 Messiah College/World Vision Mali

As part of the research described in section 9.2.1, laundry washing areas were also re-designed to be more user-friendly for women, disabled and older people.
Costs: according to figures provided by World Vision, the additional cost of the revised design is 28% (from 350,000CFA to 450,000CFA[1]). It is not clear why the additional cost is so high and efforts are being made to reduce this difference.

Figure 14: Water point apron under construction. Note laundry area and ramp access.
(BESIK ndb)

Figure 15: Laundry area at the water point in use.
(BESIK ndb).

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[1] $690 – $890 USD approx

Figure 16: Typical laundry area in Mali.
(World Vision Mali)
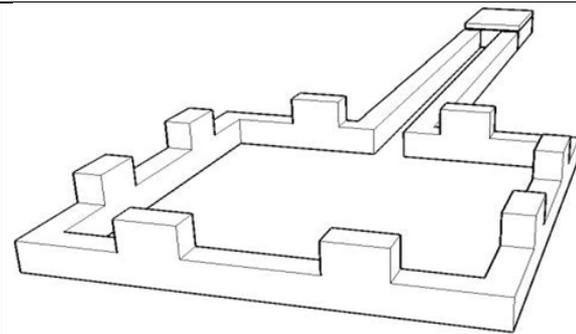
Figure 17: Design of improved laundry area, with raised sitting blocks.
(World Vision Mali)

10. Sanitation

There is considerably more documentation about accessibility of sanitation than about water supply – specifically related to latrines and toilets (terms used interchangeably depending on the informant).

10.1 Provision of a toilet in itself can be hugely beneficial

There is ample anecdotal evidence that the existence of a household latrine where previously there was none can make a huge difference both to the individual and to their family. Benefits illustrated in this section include:

- Improved health
- Increased personal dignity
- Laboursaving
- Time saving
- Reduced hazards (falling, animals)

Ismaila Hudu is from a rural community in Nigeria said, "I am physically challenged. It was not easy for me to go far into the field every morning. So I used to wake up very early [...] There used to be faeces all round houses. Not now. This is the best thing that happened to us." (Burton 2007:14)

In a study of CLTS in Nepal, it was found that 'the majority [of disabled and older people] benefit from latrines, with the main factor being reduced walking distance […] one woman liked the convenience and time-saving for her elderly sick mother-in-law who needed help getting to and from the latrine […] an elderly blind woman spoke about how previously when she went for open defecation she often stepped in other people's faeces, so having a latrine was much easier for her, and she didn't need to worry whether anyone could see her." (Jones et al 2009)

10.1.1 Jal Bhagirathi Foundation in India

This organisation is involved in sanitation provision in Rajasthan. Boxes 1-4 describe the impact of acquiring a household latrine on four households with vulnerable family members. The latrines have no particular accessibility features (information courtesy of Neumann, 2012).

Box 1: The benefits to an elderly man

Kasim Shar is a frail 85 year old man, from the village of Chiyaro Ki Dhani in the harsh Marwar region of Rajasthan, India. His family consists of eight people, including four grandchildren. He can't hear or see very well, and has very limited mobility due to his age.

Kasim spends his time lying on a cot beneath a large shade tree outside his home. Before having a toilet, the family practised open defecation which created many problems. It was difficult for Kasim to go outside for open defecation, especially at night or during the monsoon season. The toilets in the village were incredibly dirty; he sometimes walked great distances to get to an appropriate place for open defecation because of the lack of bush cover due to deforestation. There was also a problem with mosquitoes in toilets and in places of open defecation. Kasim mentioned that there was a lot of diarrhoea and vomiting associated with unsanitary conditions around the home, also mentioned itching of the skin, most likely associated with mosquito bites.

His toilet was installed two years ago, 10 feet from his home. Kasim and his family have noticed a huge difference in their lives. It is very convenient not to have to go out to defecate at night. He also now isn't forced to deal with treacherous conditions during the monsoon season, which posed many risks to the health and safety of the family. Now with the toilet installed, the entire family is able to be more productive in farming because they don't have to walk great distances to perform open defecation, a process which often took up to a couple hours. Now this time can be put into farming, which the family's livelihood depends on.

Box 2: Disabled head of household

Ghamand Ram is 65 years old, and lives with his wife and 10 year-old grandson in the village of Godawas. He is an amputee who lost his leg at the age of 20. Previously the family had to walk very far for open defecation. Ghamand required the assistance of his wife or grandson for open defecation, especially during monsoon. He also mentioned water-borne illnesses and insect infestations associated with poor sanitation around the home. Ghamand's son died a few years ago, after which his wife was expected to take over the farming, as his grandson is still too young, and Ghamand could only do simple, light tasks.

Ghamand's toilet was installed two years ago, and he cannot stress enough how much happier and peaceful his life has been since then. He feels that his family is living a comfortable and healthy lifestyle now. They have noticed a decrease in the frequency of illnesses in the family. His family is now able to get more work done on the farm because they no longer have to make trips to the field for open defecation, or assist Ghamand in the process.

Box 3: The hazards of open defecation when you're blind

Bhawaru Khanis is a 42 year old man, from the village of Chiyaro Ki Dhani, Rajasthan, India. His home has nine members, including his mother and four children. Bhawaru is completely blind, though he still has a good deal of mobility. Before the installation of the toilet, he often was forced to walk by himself during the night far enough away from his home to defecate, sometimes half a kilometre or more. He often fell into pits and potholes on the road, as well as on the rough terrain of the surrounding desert. He also dealt with animals and insects in the night, especially during the monsoon, which was a great challenge as he cannot see. One evening during the monsoon season, he went for open defecation and while walking on the road, he stepped on a snake. He then limped back home on his swollen foot. The bite was treated and the venom was not fatal, but it was still an unpleasant and terrifying experience.

Another night, Bhawaru went out to defecate. Behind his house there is a 'tanka', or well for water storage, with an opening level with the ground, that was uncovered that night. Using the wall as a guide, he walked directly into the well, banging his head on the side of it. Luckily, his family rushed outside to see what had happened, or he might have drowned.

After having the toilet for two years, Bhawaru and his family feel that life is much easier. He no longer requires assistance to find a place for open defecation. He no longer has to deal with health risks and mosquitoes around areas of poor sanitation and he no longer worries about being attacked by animals in the night, or sustaining injuries from falling into holes. The mental benefits of the toilet are as remarkable as the physical and health benefits which it has brought.

Box 4: A family with a frail elderly and a blind family member

Umraw Khan is a 70 year old man from the village of Chiyaro Ki Dhani, Rajasthan, India. He has limited mobility and is completely blind. There are nine people in his family, including his 86 year old mother, who is unable to walk by herself. Before the toilet was installed, the children often assisted both him and his mother in defecation. His mother was usually lifted to be taken for open defecation, often up to two kilometres from the house, just to get sufficient privacy from other houses which are all very close to each other. This often took 2-3 hours a day. As the main sources of their livelihood are farming and livestock, this meant sacrificing precious working time. Because of this, he and his family were occasionally forced to defecate inside the house.

A few years ago Umraw's mother fell ill with dysentery, and was then unable to walk unassisted. She had to be lifted and taken into the house where she defecated on old rags in the corner. This created many obvious health risks, but more importantly, it was degrading to her. She was held by her grandchildren as she defecated; something referred to by the family as a 'shameful act.'

Now with their new toilet, the entire family is much happier. There has not been an instance of a water-borne illness since its installation. The risk of contracting such an illness has decreased, which allows for more peace of mind in day to day life. Instead of two to three hours spent on defecation a day, it is now a process of 15 minutes at most. This allows the family to accomplish much more in terms of farming

and rearing livestock.

10.2 Research generated latrine solutions

Messiah College/World Vision research in Mali has developed a number of latrine technologies, including toilet walls built with protruding bricks to serve as support handholds, a string suspended down the centre of the drop-hole for a blind person to locate the drop-hole, and low-cost moveable toilet seats that can be placed over a toilet hole and moved to one side when not required (figures 18-21). They can also be used where there is no latrine, ie for support during open defecation.
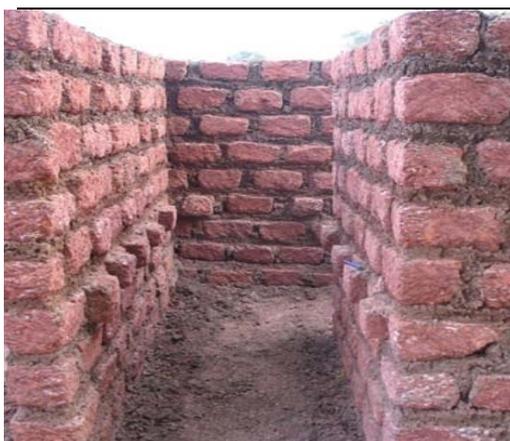
Figure 18: Protruding bricks for support to enter/exit a latrine
(Kamban and Norman 2013)
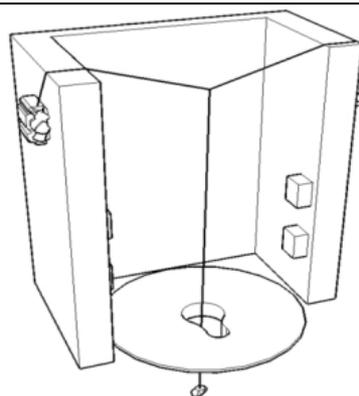
Figure 19: Latrine design with protruding bricks for support, and string for blind user to locate drop-hole
(Kamban and Norman 2013)

Figure 20: Moveable toilet seat made of gi pipe
(Norman 2010)

Figure 21: Wooden latrine chair
(Kamban and Norman 2013)

10.3 CLTS type programmes

Poverty and vulnerability issues are fundamental to debates among CLTS practitioners, who are increasingly grappling with equity and sustainability questions. Kalimuthu and Hossain (2008) emphasise the importance of inclusion of all – the poorest, disabled, and all vulnerable people – to ensure true coverage. In the ideal practice of CLTS, those in the community who are better off and stronger help those who are sick, old, disabled or otherwise physically weak with materials and/or labour, to dig latrine pits or build latrine structures. 'There is much cited anecdotal evidence of this taking place.' (Chambers 2009:37)

To what extent does this happen though? CLTS emphasises the need to work with the whole community to achieve 100% behaviour change, which is strongly justified in terms of both health benefits and equity (Evans et al 2009:19). In view of the inequitable progress to date on sanitation, Chambers (2012) highlights two key areas: 'First, with rural CLTS, triggering and/or early follow up must be facilitated so that people identify the "last" in their communities and what needs to be done that they cannot do or be expected to do for themselves. For the poorer and less able this is already standard good practice but it must go further, and identify those who face physical and other disabilities, encouraging local actions and innovations to provide what is needed. Second, with urban Citizen-Led Total Sanitation, when full or even partial self-provision is not an option, rights-based demands, mobilising to secure support and services from the authorities, has to be a major part of the way forward.' (Chambers 2012:14-15).

From UNICEF West Africa: 'I think all total sanitation programmes are very equitable, reaching all members of society, and we frequently hear stories of less able members of communities being helped, so in this respect I would say that most of our sanitation programmes address issues facing disabled or older people as an integral part of the programme.' (Bevan 2012) See Box 5 for an example.

Box 5. Latrines improve families' privacy and dignity

Mr Mahamat Seid is 40 years old and has been blind all his life. He had never used a latrine until UNICEF Chad brought the CLTS approach to his village.

"I'm blind and can't see anybody, so when I defecated in the open air I couldn't see who was there and who was watching me. That's why I decided to build my own latrine. CLTS has brought to us the reality of our health condition. Before, no one knew that our diseases come from open defecation and poor hygiene, but with this approach everyone now knows how to prevent diseases by practicing improved hygiene and use of latrine and our village is clean (Okwirry, 2012).

10.3.1   User generated latrine adaptations

There are a number of examples of families coming up with their own ideas about how to make the toilet easier to access.

Plan Indonesia

In a CLTS project supported by Plan in Indonesia, a 'triggering' session convinced one household with a disabled family member of the urgency of using a sanitary latrine. After consulting with their visually impaired family member, a white-lined path from house to latrine was constructed on the family's initiative. The visually impaired person is able to walk along the path independently. No other modifications were required to the latrine (Triwahyudi 2013).

Figure 22: White lined path leading from house to latrine
(Triwahyudi 2013)

Plan Kenya

In Kilifi there are examples of where disabled people have modified latrines to suit their situation. Modifications include a raised toilet seat which allow users to sit comfortably, and another is the use of two raised blocks either side of the drop hole to avoid the need to squat (Figure 23).

During the triggering process in the community, according to Chege, 'emphasis is made on every community member being able to construct and use a toilet. The modifications done on such toilets to serve

Figure 23 Toilet with raised sitting blocks
(Chege 2012)

people living with disability are usually made based on the initial call for all community members to construct and use latrines. The Kilifi team is currently embarking on documenting stories on CLTS and disability. Once this is done it will be shared.' (Chege 2012).

NEWAH Nepal

In a study of CLTS communities in Nepal, Jones et al. (2009) found several household initiatives to make household latrines easier, safer and more comfortable to use, including low steps to a latrine, with cross-hatching to provide an anti-slip surface when wet (Figure 24). In another household the father had carved a strong chunky door handle to make it easier for his disabled daughter to open the door (Figure 25).

Figure 24: Low steps with cross-hatching
(Jones et al 2009)

Figure 25: Hand carved toilet door handle
(Jones et al: 2009)

10.3.2   Evidence of negative impact of CLTS type programmes

There is some anecdotal evidence of poor people being penalised by CLTS or similar types of approaches (Chambers 2009). For example, Mahbub (2008) describes 'various measures [to deal with non-compliance]… announcement of penalties, seizing of assets, withholding of stipend, old-age allowance, etc […] carried out by Union Parishad members.' Haq and Bode mention pressure from authorities, intimidation and even arrests for non-compliance, threats to withdraw benefits such as elderly pension or widow's pensions (2008:9). Their study also found 'instances in which all members of a household use the latrine, with the exception of one elderly person' who for whatever reason did 'not feel comfortable to use a latrine'. (Haq and Bode 2008:11)

10.4 Inclusive decision-making processes

10.4.1   NEWAH case study

This section is based on Sapkota et al (2012) with additional material from Binks (2012).

Nepal Water for Health (NEWAH) has provided WASH in rural communities in Nepal since 1992. One aim of its Gender and Social Inclusion Strategy aims to 'support NEWAH and its partners to become more sensitive to the WASH related needs and aspirations of women, the poor and excluded, and ensure their inclusion in all project interventions.' At community level this primarily takes the form of inclusive decision-making processes facilitated by NEWAH staff. Stage 1, the project planning phase, includes:

Detailed household surveys: collecting information disaggregated by age, gender, socio-economic status, disability, chronic health conditions and education level. The results allow NEWAH to identify disadvantaged community members and target efforts at inclusive decision-making during project planning.

Well-being ranking: a focus group of informed locals are supported to outline a set of criteria to define the socio-economic status of community members according to three categories: ultra-poor, poor and medium. The criteria depend on the community, but are likely to include income and assets which the community can

identify, eg number of job- holders in the family, how much land and livestock they have.

The socio-economic status of each household in the community is then classified according to the agreed criteria and allocated to one of these categories. A mass community meeting is then held, with one male and one female representative from each household, at which the ranking results are discussed and confirmed. This ensures the process is transparent and agreed upon by common consensus.
The community meeting also elects the Water and Sanitation Users Committee (WSUC), ideally comprising 50% women, including as key position holders, and representation of poor and excluded groups. With NEWAH facilitation, the community decides how to satisfy these recommendations.

If the household survey identified any households with chronic illness, disability or other disadvantage, NEWAH also facilitate discussion on the challenges faced by these community members, through story-telling, or sharing of personal 'testimonies'. NEWAH staff prompt with questions such as 'What makes it difficult for you to fetch Water or use the latrine?', and encourage discussions around specific situations and challenges. Once the community understands the issues and agrees to provide support, the ideas to address the challenges identified are community-led as far as possible, with guidance if needed.

A community tapstand typically services a 'cluster' of five to six households located close together, called a *tole*, with a standard design criterion of less than 10 min walk from every house in the *tole*. During project planning, the community are facilitated to discuss and agree the tapstand location within their *tole*.

After declaring themselves open defecation free (ODF), the WSUC receives 'award money', contributed by NEWAH and/or the local village WASH coordination committee. This fund is intended to be used to support the entire community in latrine construction, at the discretion of the WSUC, usually prioritising ultra-poor households.

Box 6. Support for Biswa
Biswa, is a blind older person living in Koiralachula. Before, she needed support from others to collect water from the river. When support was not available, she often injured herself trying to visit the river alone. She had no latrine.
NEWAH field staff noticed Biswa's case from the household survey. Her situation was brought up for discussion during the mass meeting. Biswa was supported by NEWAH facilitators to voice to the community the difficulties faced in her daily water collection and sanitation practices.

Once the community became aware of Biswa's circumstances, they were encouraged by NEWAH facilitators to consider her needs in the discussion of tapstand locations and latrine construction support. Reaching consensus, the *tole* group proposed to construct the tap stand directly adjacent to Biswa's house, and an accessible toilet close to Biswa's home. From her doorway to the tapstand, and also to the latrine, they installed a handrail to guide her safely.

The entire community (not just the tole but all in the village) agreed to allocate extra funds from the general project finances to construct the handrails, and additional funding support for her latrine. NEWAH provided guidance on accessible design. Community members assisted with latrine construction.

Since construction of the facilities, Biswa has been able to find her way to the tap stand and toilet by holding on to a bamboo handrail attached from her house. She says, 'to be able to do these things, which I could not do in the past, gives me immense pleasure.'

Box 7: Babisera and her carer

Babisera, 12, has severe physical and mental disabilities. She is unable to move without assistance and spends most of her time in bed. Unable to walk or communicate, Babisera could not get to the nearby fields for open defecation like the rest of the community. She was forced to defecate where she lay in bed. Consequently her mother spent hours each day bathing her and cleaning her bedding. This was a source of significant distress for Babisera and her family. Babisera's situation was identified in the baseline survey. During the mass gathering, the community discussed the challenges she faced and proposed to support Babisera's family to construct a disability friendly latrine. The community agreed to allocate funds to Babisera's household, out of the WSUC's ODF 'award money'. NEWAH provided latrine design ideas, in consultation with the family about user requirements (eg the need to sit because of lack of balance).

Attached to the family's traditional squat latrine, the community helped construct a latrine with a wheelchair-level seat with arm rests for support (see below). The two latrines are back-to-back in a single structure, with a single pit.

The accessible latrine has made a world of difference to Babisera and her family. Her mother no longer spends hours a day washing bedding. Before, Babisera would lie listless in bed with limited interaction. Now she has begun to communicate, indicating when she needs to use the latrine. This has brought much joy to her family and hope for a happier, more dignified future.

Box 6 and Box 7 illustrate how this is put into practice in the implementation phase.

Stage A	Stage B	Stage C
-	Attention to disadvantaged community members incorporated into routine project planning and implementation.	-

10.4.2 Issues /problems with inclusive decision-making

Mahbub (2008) describes the problems sometimes encountered in seeking the opinions of the poorest.

- **Social stigma:** 'Nobody listens to the poor. If N advocates for installing a latrine the villagers would follow as he is rich and powerful but nobody would pay any heed to M as he is extremely poor. Rather he would be scolded for his advice.'
- **Pragmatic problems related to poverty:** 'The extreme poor and destitute live on daily income hence it was completely impossible for them to [take time off work to participate] in [CLTS] activities.'

Some income opportunities generated by CLTS for the extreme poor and destitute are described 'For example some of them worked as helper in sanitation centres, earned wage through making bamboo cage [to line latrine pits] and digging out holes, etc.' Of course for frail elderly or many disabled people these would not be possible either (Mahbub 2008).

10.4.3 WaterAid research into inclusive WASH

In Uganda and Zambia, WaterAid and local partners are piloting inclusive WASH activities within a broader WASH programme. The purpose is to learn how to make routine WASH interventions – including CLTS, water supply, and hygiene promotion – more inclusive, to identify additional activities that may be needed, and what interventions are effective in improving provision for disabled and older people (Wilbur et al 2013).

The kinds of activities that are planned are outlined in Box 8. The CLTS aspect of the programmes will follow the same steps as in any other CLTS project (ie triggering, developing community action plans and training hygiene promoters), but mobilisers will structure discussions around the barrier analysis to raise awareness for the differing access requirements. This will work towards breaking down attitudinal barriers. Information will be developed with pictures for people who cannot read, audio for people who cannot see and it will be in an appropriate language so that everyone has access to relevant information. This will help challenge institutional barriers related to a lack of accessible information.

Stage A	Stage B	Stage C
• Baseline situation analysis	• Capacity building • Piloting of inclusive approaches within wider WASH projects	-

> **Box 8:   What does Inclusive WASH look like?**
> Inclusive WASH promotes an approach that responds to the varying needs and requirements of people and the local context, rather than promoting a 'one size fits all' approach. An inclusive approach means that:
>
> 1. **Community mobilisation** uses participatory approaches that enable different groups to take part, including those with less power.
> 2. **Information about sanitation and hygiene** includes facts about menstrual hygiene, disability and impairments, and communicable diseases. It challenges stigma and discrimination and reinforces the need to provide access to all.
> 3. **Information is provided in local languages and accessible formats with** pictures for people who cannot read, and audio for people who cannot see. Everyone has access to relevant information about WASH technology options.
> 4. **WASH facilities that provide privacy** for women to wash their bodies, stained clothing and any cloths used for menstrual hygiene management.
> 5. **Public water sources** are located and installed in a way that makes them as accessible and user friendly as possible for everyone.
> 6. **Public or institutional latrines** in markets, schools health centres have separate and accessible facilities for males and females. Water is provided inside the women's cubicles for menstrual hygiene management.
> 7. There are arrangements for the **disposal of sanitary napkins**.
> 8. **Water user committees** include women and members of other marginalised groups, such as people with disabilities. Meetings are facilitated to ensure meaningful participation.
> 9. **Tariffs include options** for the poorest and people who cannot pay.
> (Adapted from WaterAid and WEDC 2013)

10.5   Information about low-cost accessible sanitation options

Within many CLTS programmes, it is a key principle that households come up with their own designs for latrines based on materials locally available and what they can afford. In other programmes, a range of designs are presented at different levels of sophistication and affordability. People cannot demand what they don't know exists. Most households select from the designs offered, or copy what they've seen elsewhere. It is rare for households or disabled people to come up with an idea for accessibility without any previous knowledge or examples. The challenge is how to share ideas and information about low-cost options, without being prescriptive or stigmatising, and as part of the usual community based sanitation programme?

10.5.1 Low cost sanitation manuals

Several examples of manuals showing low cost sanitation options for rural households also include a page of accessibility options, such as those supported by UNICEF in Bangladesh (DPHE 2002), and in Cambodia (DRHC 2006). Netherlands Development Organisation SNV in Bhutan have taken this a step further, in a manual on low cost sanitation for rural areas, with four pages on disability considerations: who is it for, what can be done, and details of different types of

adjustments – eg handrails, raised seats, simple adaptations for children, illustrated by examples (PHED and SNV nd)

10.5.2   WaterAid Bangladesh

Two WaterAid partners in Bangladesh carried out pilot projects, one within a rural CLTS programme and one in an urban sanitation programme (Ahmed et al 2011). Project objectives included the creation and introduction of appropriate and user-friendly sanitation options, and development of appropriate software materials.

Materials developed include a manual of pictorial and technical information showing different types of low-cost accessible latrine technologies, in both Bengali and English (WaterAid Bangladesh 2009). Each technology option is depicted with a clear computer generated 3D drawing, and a real-life photo (eg Figure 26), followed by technical and cost information.

No further information is yet available as to how these have been subsequently used in the wider programmes of partners.

Figure 26: Example page from WaterAid Bangladesh for a person with no vision and/or an older person (2009).

Stage A	Stage B	Stage C
Based on available information, as this appears to be a separate document targeted specifically at groups of disabled people.	If the information has been used/tried out as part of sanitation information provided to communities in other sanitation programmes.	If the materials are now being used routinely in sanitation programmes implemented by partners, in conjunction with ordinary low-cost household sanitation materials.

10.5.3   World Vision Mali

Messiah College, in collaboration with World Vision in Mali, has taken a different approach. For latrines, which are the responsibility of the household, information about ways to make latrines accessible is provided by World Vision staff to WASH committees during their training (see section 8 on capacity building).

A large 'flipbook' has been produced, with hand drawn images and photos illustrating firstly an example of an inaccessible or not very user-friendly WASH facility, with bullets highlighting the main reasons, followed by an image of a good example (see figure 27 for examples). The images are based on experience from the study described in section 9.2.

As yet no detailed information has been received from World Vision about how the flipbook is used, but it is assumed that it provides starting point for discussion and gets people thinking about different designs.

Inaccessible handpump – too many steps   **Accessible handpump, with ramp**

Figure 27: Examples of images from World Vision flipbook for WASH committees
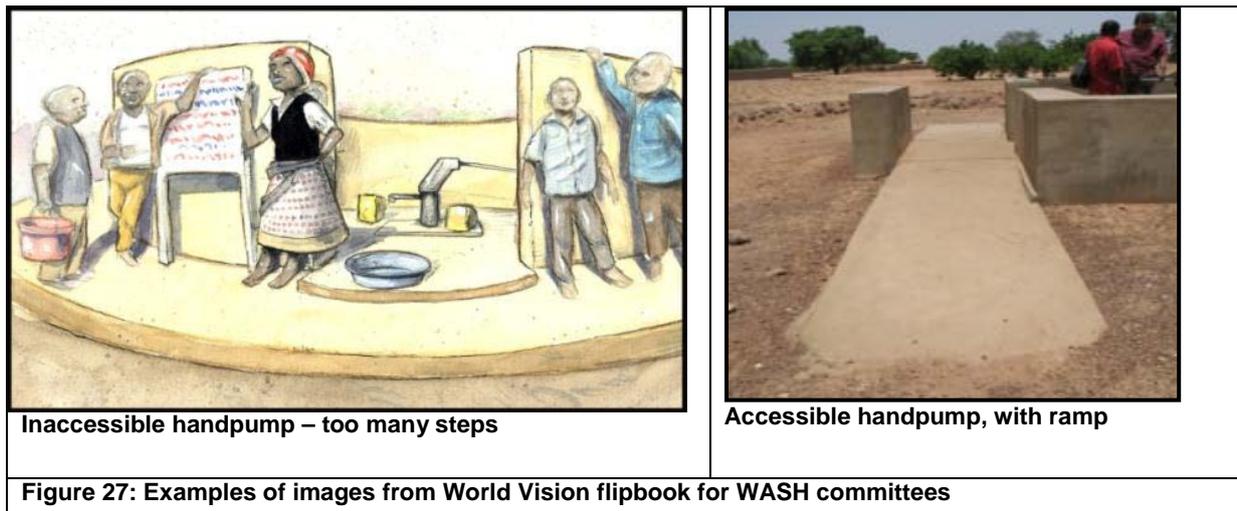
Stage A	Stage B	Stage C
-	If trialling the flip-book for use in selected WASH projects.	If the flip-book or similar is now used routinely throughout the World Vision Mali programme.

10.6   Sanitation marketing

In a study of 137 latrine adopters in Ghana, Jenkins and Scott (2007) found that the most commonly cited reason for constructing a latrine was 'for sick or old relatives'. This indicates a potential sanitation marketing 'hook', which has not yet been more widely recognised and built on.

10.6.1   Plan Indonesia

As part of its sanitation marketing interventions, Triwahyudi (2013) describes how Plan Indonesia supported sanitation entrepreneurs in one District, Grobogan, to form their own association PAPSIGRO, to share information on product development and marketing approaches.

Plan Indonesia ran training on inclusive toilet modules for PAPSIGRO entrepreneurs. At least one activity involved a squatting exercise with children, older people and wheelchair users. The outcome is that 'PAPSIGRO is providing services to build cheap latrines that will be designed based on the specific needs of people with disabilities. With the assistance of Plan staff, PAPSIGRO are also developing the design of universal latrine that can be used by children and people with disabilities.' The design development is currently on-going and involves adjusting dimensions, and adding handrails at different heights – figures 28 - 31 illustrate training sessions

on toilet design for different users – for children under nine years, for adults including the elderly, and for people with disabilities.

Figure 28: Training sessions on toilet design for different users – children, older people and people with disabilities (Triwahyudi 2012 and 2013)

Stage A	Stage B	Stage C
-	Capacity building and product development in the context of a mainstream WASH programme.	-

11.   Hygiene promotion

Very little information was found about hygiene promotion activities or software materials that include images of disabled people, and messages targeting issues specific to disabled people, or modes of communication that have been adapted for people with visual or hearing impairments. One unique example is from WaterAid Bangladesh (Ahmed et al 2011). During the pilot projects described in section 2.5.3, hygiene promotion materials were developed, depicting images of disabled people – one set for rural and another for urban areas (eg figure 32). No further
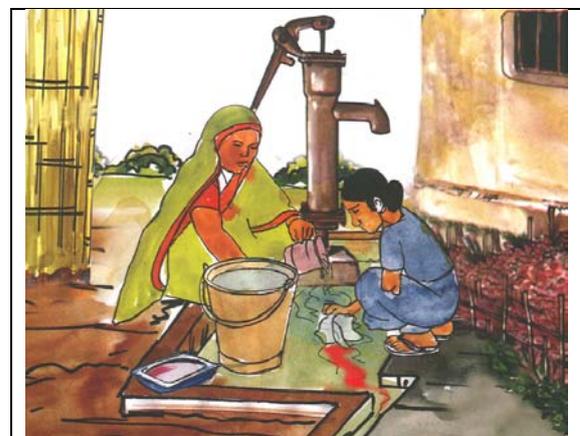

Figure 29: Example of hygiene promotion flashcard depicting disabled girl (WaterAid Bangladesh 2010)

information is yet available as to how these have been subsequently used.

Stage A	Stage B	Stage C
Based on available information. This a separate set of materials targeted specifically at disabled people.	If the materials have been used as part of hygiene promotion activities in other project/programme areas.	If the materials are now being used routinely by WaterAid WASH partners, either in conjunction with ordinary hygiene promotion materials, or in separate disability groups which are now organised routinely.

12.   WASH in schools

The topic of WASH in schools is the issue about which most information has been received.

12.1 Inclusion in guidelines and other documents

The WEDC publication *Sanitation for primary schools in Africa* includes a cubicle for disabled students in both boys' and girls' blocks (Reed and Shaw 2008). This document was used by Plan as a basis for designing its accessible school latrines (see section 4.2.2).

UNICEF/WHO guidance on WASH standards for schools in low-cost settings mentions children with disabilities as appropriate throughout, and specifically details the types of features that ensure accessibility and usability by disabled children and staff (Adams et al 2009:31).

UNICEF's *Raising Clean Hands* publication is a good example of progress on including disability between the first and second edition.
The first edition makes specific mention of disabled children at the beginning: 'The additional cost of accessible facilities can be minimal if they are planned from the outset. *WASH in Schools* raises awareness about inclusive education and seeks to enhance accessibility of child friendly facilities and services – bringing the large numbers of children with disabilities who are often excluded into the school community.' (UNICEF 2010: p.6).

Thereafter there is no further reference to disability at all.

Two years later, the updated edition *Raising Even More Clean Hands* (UNICEF 2012) incorporates comprehensive reference to disabled children. Firstly in the introduction, but then also throughout the document:

'Clean and accessible facilities empower all students to attend school, especially girls and children with disabilities,' (UNICEF 2012:12) then in the section on discrimination, 'some children, particularly adolescent girls and children with disabilities, are excluded due to inadequate facilities.' (ibid:16) Then the whole of page 19 is on inclusion, details the benefits of inclusive child-friendly facilities.

A companion document – *WASH in Schools Monitoring Package* (UNICEF 2011a) provides clear questions and indicators for monitoring implementation. Included are

tool sets for assessing the child-friendliness of facilities and hygiene education programmes, and accessibility for children with physical disabilities (ibid:3). Facilities should cater to the needs of the entire student body, including small children, girls of menstruation age and children with disabilities (ibid:6).

Module 1 provides questions for inclusion in National Education Monitoring and Information System (EMIS) Questionnaires. It 'includes a set of core questions, but also includes a set of optional supplementary questions including about students with disabilities (see Box 9).

Stage A Applies to first edition	Stage B 2nd edition – disability and inclusion referred to as appropriate throughout the document.	Stage C

Box 9: Examples of WASH in schools monitoring questions
Sanitation
Indicators (core questions): The number of functional toilets and urinals for girls, boys and teachers meet national standards.
Indicator (core plus expanded questions): The number of functional toilets and urinals for girls, boys and teachers meet national standards, and are accessible to children with disabilities.

There follow expanded questions:
- Question 4: Do teachers have their own toilet facilities (separate from children's facilities)?
- Question 5: Are toilets accessible to children with physical disabilities?
- Question 6: Are some toilets available in the school designed for younger children?
(UNICEF 2011a:24)

12.1.1 Water, sanitation and hygiene for schoolchildren in emergencies
This guidebook for teachers (UNICEF 2011b) highlights inclusion in the section 'Being inclusive – reaching every child' (ibid:8). This message is reinforced by the inclusion throughout the book of images of children with different types of impairment. Technologies and adaptations are not mentioned, but that is not the focus of the book. An accompanying set of flashcards also include images of disabled girls and boys throughout.

Stage A -	Stage B Disability and inclusion referred to as appropriate throughout the document.	Stage C -

12.2 Inclusive school WASH
Based on information received, Viet Nam appears to have carried out the most successful process of developing inclusive designed school WASH facilities. The term 'inclusive design' refers not only to the design **product,** but just as importantly

to this consultative **process** of engagement with a whole range of crucial stakeholders. However it is worth noting that this is not a swift process; and there are no short-cuts: it took a full four years to achieve the results described, which is not unusual.

12.2.1   AusAID in Indonesia

AusAID have been supporting the building of 2,000 junior secondary schools in remote and rural areas of Indonesia, including WASH facilities (Alireja and Spicer 2012). In 2008, national standard designs were revised to include provision for children with disabilities. These were initially only used for AusAID funded programmes. 'Over the next two years, AusAID continued to advocate for the Indonesian Government to replicate the designs used in the Australian-funded schools across the national junior secondary school construction program. Program advisors emphasised the cost effectiveness of building accessibility features from the beginning rather than retrofitting following construction. If these facilities were built into the design, it would have very limited cost implications' (Alireja and Spicer 2012).

In 2010, the Indonesian Government agreed to implement the inclusive standards for all new junior secondary schools built with Indonesian Government funding.

Key learning issues

However, issues still remain with implementation in practice, including:

* Poor understanding at community and school level of the importance of mainstreaming of disability and gender, and the perception that disabled children would be better in special schools.
* Underuse – there is a misconception that the accessible toilets should be reserved solely for the use of disabled children, resulting in other children being prevented from using the facilities even when there are no disabled children in school.
* Facilities not constructed according to the design due to unfamiliarity, eg doors too narrow for wheelchairs to enter.
* Designs only take account of physical impairments. There is a need to consider the needs of children with visual impairments.
* Designs are inappropriate for some settings, eg pedestal toilets where the custom is to squat or flushing toilets where water is scarce.

There is a need to provide training on the new construction standards and increase community awareness on the need for constructing these facilities as well as additional monitoring of the construction is needed to ensure greater compliance. It is tempting to import designs from elsewhere for speed. Designs developed locally by a range of stakeholders are more likely to be appropriate to local needs and culturally acceptable.

Stage A	Stage B	Stage C
	Development and construction of accessible designs of school latrines	Use of accessible latrine designs now routine, but problematic.
-	-	There may be a need to return to Stage B, ie to develop locally appropriate designs - with wider input from local stakeholders.

12.2.2   Tanzania

Several initiatives have been undertaken to develop designs of school latrines that incorporate accessibility, which is not yet considered in official school latrine designs. Plan Tanzania partnered with Youth Disabled Development Foundation, with support from two local disability organisations, Comprehensive Community Based Rehabilitation in Tanzania (CCBRT) and SHIVYAWATA, to carry out a baseline disability assessment in villages and schools in Kisarawe (Mtitu 2011; Hanley 2011). 144 disabled people were identified in the project area, for whom water and sanitation facilities were largely inadequate both at household and community level. The views of disabled people helped to inform the design of improvements. At the time, school WASH designs from government did not consider disability issues, so Plan drew on a WEDC school WASH manual (Reed and Shaw 2008) to design and construct 'disability and gender sensitive' school latrine blocks. At the time of writing, six have been constructed with a further eight planned (July 2011). Each latrine block has a special cubicle with a ramp for children with disabilities (Figure 33). Awareness training on gender and disability, and dramas to raise awareness were also an important component of the project.

Significant challenges:
- Involving disabled people in decision-making processes remains a challenge. One water management committee has accepted a disabled person join, after considerable awareness-raising efforts.
- Households are reluctant to modify toilets or incorporate accessibility features – older people are particularly resistant.
- Awareness-raising received a mixed response – those whose attitudes changed became advocates. In one village a well-educated disabled man was respected and listened to by the community, illustrating the importance of disabled advocates.
-

Figure 30: Plan Tanzania WASH Advisor 'testing' latrine block with a student.
(Hanley 2011)

Stage A	Stage B	Stage C
Baseline disability assessment	Development of inclusive latrine designs, incorporating views of disabled people.	-

A parallel initiative with involvement of UNICEF, SNV, WaterAid and CCBRT, focused on collaboration to ensure that accessibility for disabled children was incorporated into the draft National School WASH Guidelines that were under development (CCBRT et al 2010).

Box 10. Development of inclusive school WASH – a collaborative process

In 2010 a partnership was set up in Tanzania involving four key Ministries and a range of other organisations, to develop National School WASH (SWASH) huidelines and toolkits, including standard designs, IEC materials, and training materials for implementing SWASH in Tanzania. The materials will be suitable for the needs of all children, including children with disabilities, will be child and girl friendly, will suit varying contexts and conditions, and will promote sustainable solutions and improvement in the hygiene practices.

AusAID funded the development and piloting process, including the design and testing of accessibility features for inclusion in the national guidelines. UNICEF facilitated the partnership of CCBRT, representing and involving people with disabilities, with the Environmental Engineering Pollution Control Organisation (EEPCO), the main sanitation training organisation in Tanzania.

A working group agreed on a number of technical designs to be produced and tested. A testing site was set up at the CCBRT Disability Hospital in Dar es Salaam. It had a temporary toilet building with appropriate measurements, two different designs of doors and door locks, two fixed seats, handrails and a selection of moveable seats that could be placed above the hole. Ten children being treated at the Hospital, who used wheelchairs or crutches, participated in testing the designs under supervision of an occupational therapist.

The findings were presented at a workshop in April 2010 to develop a first draft of the National SWASH Guidelines. Four representatives from CCBRT and SHIVYAWATA, the Tanzania disability umbrella organisation participated: an occupational therapist, a communications expert, an advocacy officer with a physical impairment and a blind disability activist. Each joined a different working group to ensure disability inclusion in different aspects of the guidelines: technical designs, information and training materials, as well as considerations for management and governance systems. The text, materials and illustrations were then refined before piloting.

Disability issues are included throughout the draft guidelines and toolkits, and the illustrations include portrayal of children with disabilities. As the disability aspects are integral to the guidelines and toolkits and will be implemented through existing institutions and programmes, there is no significant cost increase. The guidelines are now being piloted in a range of locations across Tanzania.

The participation and representation of disability organisations and people with disabilities throughout the process has contributed greatly to raising awareness of disability among the WASH stakeholders involved (adapted from CCBRT et al 2010).

Stage A	Stage B	Stage C
-	Development of inclusive school latrine designs, incorporating views of wide range of relevant stakeholders.	-

12.2.3   Lao PDR

According to information from UNICEF (Badloe, 2012), new designs for water supply facilities and latrines have been developed by UNICEF in consultation with the Lao Ministry of Health, Ministry of Education, AusAID and the World Bank. The new designs are being implemented in 1,385 schools in 16 provinces across the country. The main features of the new designs are that they are inclusive, for both girls and boys, suitable for use by children with disabilities, and responsive to risks associated with extreme climatic events, particularly floods.

For children with disabilities, a few innovations have been made in the designs, including ramps with appropriate gradient (figure 34), handrails inside the toilet for use by children with physical disabilities (figure 35) and transparent roof sheeting providing more light inside for children with impaired vision (figure 36);

Crucial to note is that following a first technical visit to the prototype latrines by AusAID, UNICEF, World Food Programme and Lao Disabled People's Association, changes are being made to the designs. These include increasing the size of the cubical allocated to children with disabilities, and adjusting the toilet diagonally in the cubical, for ease of access.

Figure 31: Prototype primary school latrine and water supply, Phongsaly province. (Badloe, 2012)

Construction is expected to be completed in 200 schools by March 2013.

Figure 32: Inside prototype accessible cubicle (Badloe, 2012)

Figure 33: Transparent roof sheets to increase natural lighting (Badloe, 2012)

Stage A	Stage B	Stage C
-	Development of inclusive school latrine designs using an iterative process – evaluation of prototype facilities, improvement of designs, construction of improved facilities.	Scaling up of construction of inclusive designed facilities – leading to it becoming the norm?

12.2.4   Viet Nam

The information in this section is courtesy of Nguyen and Tran (2012) in the UNICEF Viet Nam WASH team. UNICEF has been supporting the Ministry of Education and Training (MOET) in Viet Nam to develop national standards for designs of child-friendly school WASH facilities, including units for children with disabilities. The whole process took almost four years, including baseline survey, initial designs, testing, appraisal and finalisation. Table 1 shows the roadmap of the full consultation process and all the different stakeholders involved. Not only was there involvement of all the relevant Ministries, but also teachers and users themselves were crucial in testing and evaluating the designs. In September 2011, MOET officially approved these standard designs and recommended them for nationwide application (MOET VN 2011). These are the first official school WASH designs in Vietnam accessible to children with disabilities from kindergarten up to secondary school, and support the Government Policy of Inclusive Education (figure 37).

In October and November 2011, UNICEF supported the dissemination of the new designs to all 63 provinces of Viet Nam (Figure 38). To date, 18 schools have been supported by UNICEF with new facilities and hygiene education, benefiting 4,440 children, including children with disabilities. UNICEF continues to promote the new designs for all new school construction among all government counterparts and development partners (Nguyen and Tran, 2012).

Figure 34: Example of a standard design of primary school latrine
(MOET Viet Nam, 2011)

Figure 35: Latrine in Phuoc Tan Primary school, Ninh Thuan province
(Nguyen and Tran 2012)

Accessibility features of the inclusive designs of school WASH facilities
To support children with low vision: a path with different textured floor tiles for guidance.

To support children with movement problems:
- Appropriate ramp entrance/exit with handrails (maximum gradient 1:14)
- Larger cubicles for wheelchair users to enter and turn
- Handwashing facility located within accessible cubicle and at a reasonable height
- Facilities within the toilet (door handle, hand basin etc) at appropriate height within reach of children using wheelchairs or crutches/sticks.

Table 1: Process for development of school WASH facilities for children with disabilities

Activities undertaken		2008				2009				2010				2011				onward
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
1	School survey conducted		■	■	■	■												
2	Consultation between MOET, MARD and UNICEF					■	■											
3	Review and revision of the existing child friendly designs and addition of units for children with disabilities with participation of and consultation with all parties involved						■	■	■									
4	Testing the construction of WASH facilities using new designs									■	■	■	■					
5	Monitoring and supervision of the constructions by MOET, MARD and UNICEF									■	■	■	■					
6	Children use of the newly constructed facilities										■	■	■	■				
7	Appraisal of the tested designs and facilities with all parties and children with disabilities													■	■			
8	Final revision by MOET with consultation of all parties														■			
9	Approved by MOET															■		
10	Dissemination of newly approved designs to provincial counterparts															■	■	■
11	Wide application of the new designs															■	■	■

Source: Nguyen and Tran (2012)

Stage A	Stage B	Stage C
●	Development of inclusive school latrine designs using an iterative process – evaluation of prototype facilities, improvement of designs, construction of improved facilities.	Inclusive design of school latrines approved and promulgated as the standard design by MoET.

12.2.5 Issues with inclusive design latrines – Cambodia

The perfect design does not in itself guarantee improved access for disabled children. According to communication from Winartasaputra (2012) all school toilets supported by UNICEF in South East Asia have been designed to provide access for children using wheelchairs for quite a few years now. Ramps are constructed and one out of the three rooms is designed for wheelchair users. However, a few lessons have been learned:

- Sufficient awareness-raising is needed to ensure effective use of the school toilets. Some schools decide to lock the accessible facilities with the excuse that they do not have children with disability (most likely because these children cannot go to school). Some schools decide to use this room for exclusive use by teachers.
- The design was almost exclusively intended for wheelchairs users. The location of the toilets often remains a constraint for children with other requirements, such as those using crutches.
- Involvement of the communities through Parent Teacher Associations was not sufficient. Communities remain unaware of such facilities – the provision of these facilities has not contributed to encouraging families to send their children to school.

13. Support for vulnerable community members

There are a number of widely used ways of identifying the most vulnerable members in a community, including vulnerability assessments, poverty mapping, wealth or wellbeing ranking. Some communities are able to do this naturally, particularly in close-knit rural areas, others need support. Whichever approach is used, the criteria/indicators used should be agreed by the community themselves using local knowledge and common sense, rather than imposed by external agencies (Fawzi and Jones 2011).

Wealth ranking tends to focus on assets such as land, income, cattle, property, food and security, whereas wellbeing ranking also considers the demands and stresses on households, such the number of dependents, including disabled or elderly family members (ibid).

13.1 Poverty mapping/wealth ranking/pro-poor approach/cost-sharing

A cross-subsidy approach was used by WaterAid Bangladesh in an urban WASH programme (Ahmed 2006). This involved higher charges for better off users for hardware and operation and maintenance, to subsidise provision to poor and marginalised groups. The poorest were identified through a process of poverty mapping, using wealth ranking, focus group discussions and observation.
NGO and focus groups of community members jointly agreed poverty indicators which included:

- Type of occupation
- Income
- Tenancy

- Household assets (eg TV, land, schooling)
- Purchasing capacity for staple foods
- Number of meals taken per day
-

Any confusing cases were validated by observation at household level. Households were allocated into the following categories:

A. **Better off:** have some savings after having three meals, housing, clothes, expenses of education and treatment for common diseases, can afford cost of water and sanitation services without subsidy.
B. **Middle class:** average monthly income meets basic needs but no savings.
C. **Poor:** single earning family member, remains jobless at least one third of the year, does not have three meals aday at least six months of the year.
D. **Hardcore poor:** do not have three meals a day almost all year round. Cannot meet other basic needs eg children unable to go to school.

Table 2: Cost sharing percentages		
Poverty category	Water supply	Household latrine
A. Better off	100%	100%
B. Middle class	50%	75%
C. Poor	25%	60%
D. Hardcore poor	10%	20%

(Ahmed 2006)

Two case studies described 'hardcore poor' beneficiaries of this approach are shown below (Ahmed 2006):

- Harun is an older blind man. Previously he used a communal latrine 20 metres away from his house. If he went alone, he often trod in the faeces of children in the road. With project support, he installed his own latrine at a cost of Tk 422 ($5.40 USD) (20% of the total = Tk 2,108 ($27 USD). He repays in monthly instalments of Tk21 (27 cents), which he can manage. Now he can use the latrine day or night without help.
- Joynab Bibi is a frail older woman, who previously used a community latrine at a cost of Tk 10 (13 cents)/month. It was quite far, and entailed crossing a wide ditch, which was impossible in the rainy season, so she would defecate beside the house. She has now installed a latrine, paying 10% of the total cost and repaying Tk11 (14 cents)/month, only slightly more than she was paying before.

Issues arising:
- Conflicts between different socio-economic groups, as the difference in contribution rates was quite wide.
- Requires good facilitation skills of implementing staff; not all were up to the task;
- The process was extremely time-consuming.

Stage A	Stage B	Stage C
-	Pro-poor approach trialled within mainstream WASH programme	-

13.2 Churches Action in Relief and Development (CARD) in Malawi

CARD addresses both water for food security and for domestic uses in their project, which uses a solar-powered gravity scheme. The programme employs a rights based approach that emphasises the inclusion of marginalised groups. Communities write their own bylaws on how they will enable the elderly, orphans, chronically ill and people with disabilities to access free water, and utilises taps specifically designed for these minority groups (de Albuquerque and Roaf 2012:120). There is no information about how the most vulnerable are identified.

14. Consultation with disabled and older people

14.1 Toilet design clinics

Salano (2012) describes a consultation process to design sanitation facilities in a poor urban community, involving local groups of women, men and disabled people. The 'clinics' supported them to identify the problems they experienced using existing facilities, and encouraged suggestions for solutions. Involvement of engineers, including a local public health technician, ensured that suggestions were aligned to existing public health regulations.

People with disabilities made a number of suggestions for inclusion in a public sanitation block. Most disabled people were living in rented housing, so the development of onsite facilities was not possible. The suggestions were turned into architectural drawings and then presented to the community for validation and amendments. Quality control was monitored by local community members, including a person with a disability, a woman and a local artisan (Salano 2012).

However, further information from Salano (2013) indicates that 'impact is minimal. Disabled people are using [the facilities] but their access is low and reasons given for this are the public facility is far from their working/business areas making it difficult for them to use the facility during working hours, but they have reported using the shower after work on their way home. This is a lesson that we have learnt. Now we want to target plots where the disabled are living, but the challenge of tenancy and permanent stays arises. But we are doing it together with them so that they help us select plots that will be of service to them.'

Salano adds that 'design clinics [are also] guiding the designs of upcoming constructions of sanitation options in four new zones around Lake Naivasha which are on-plot options.'

Stage A	Stage B	Stage C
Pilot project, with lessons for wider project delivery.	-	-

14.2   Consultation in emergency situations

Although this study was not looking specifically at emergency situations, information received from Beg (2012) is worth including.

The International Rescue Committee (IRC) provides water supply for over 110,500 Somali refugees in the southeast of Ethiopia. According to the UNHCR, 4% of the refugees are disabled or older people. The IRC's Community Wellbeing Initiative unit recently carried out an assessment of protection concerns and water supply accessibility for disabled and older people. This took the form of focus group discussions with disabled and older people (men and women separately) and key informant interviews with DPOs, Women's associations, and other relevant NGOs and service providers. The findings highlight problems of time and distance, difficulties of access and with carrying jerry cans, attitudes and discrimination and levels of family support. The findings point to practical recommendations for service providers.

During the one to four years participants had lived in the camps, this was the first time they had been consulted. Over 90% had never heard of the existence of water committees in the camps (Beg, 2012).

Stage A	Stage B	Stage C
Study, situation analysis	-	-

15.   Roles and responsibilities of disabled and older people

There are examples of individual disabled and older people who take an active role when the opportunity is presented, see Box 11 below.

Box 11: Disabled man develops his own business

Mr Lawrence Makiyi lives in Chitalo village, in TA Kalembo Balaka District, Malawi. He is 47 years old, married, father to four children, and has a disability. He does farming work and participates fully in the development of his village. When Chitalo village was being triggered, Mr Makati participated with interest and enthusiasm and eventually impressed the team of facilitators and was chosen as one of the natural leaders of the village to lead in the fight against open defecation.

Mr Makiyi has constructed a beautiful pit latrine that has a well-made drop-hole cover and a foot-operated handwashing facility for his family members, as well as a modified handwashing facility for himself. After noticing his keen interest in the programme activities, Mr Makiyi was identified and trained as a mason and small scale business entrepreneur, to assist him with making a variety of drop-hole covers and handwashing facilities for sale to other community members. Since the training, Mr Makiyi has been constructing and selling drop-hole covers and is helping communities to erect handwashing facilities for a fee as part of his business. Mr Makiyi's business has been doing very well, so much so that people from neighbouring villages buy his goods.

Source: Coordinator Global CoP Sanitation and Hygiene (2012)

15.1 Disabled people engaged as handpump attendants

In 2009, nine standpipes were installed in the district of Tenkodogo, Burkina Faso in addition to the 35 already installed by the National Water and Sanitation Company (Handicap International 2010) (described in section 1.2.4). For selection as a waterpoint manager, applicants needed the ability to manage such facilities, and residence in the area of the new standpipes. Following advocacy by local DPOs, the municipal council assigned the management of six of the nine water points to people with disabilities – three women and three men.

Impact: People with disabilities now play a key role in local decision-making about the management of water services, and the active role of people with disabilities promotes a different perception of disability within the community.

For Zarata, such initiatives will accelerate the change in the way people with disabilities are perceived: "Today, people come to me for advice on hygiene and I also educate my family members, people in my area and especially women who come over to the standpipe. I am happy to be here and I know that people need me"	Zarata in her wheelchair. Handicap International (2010)

Factors making this possible:

- The **positive attitude** of the City of Tenkodogo towards people with disabilities, undoubtedly helped by the presence of five disabled people who work for the city council. This has enabled their colleagues to recognize the skills of disabled people and become aware of the difficulties they encounter on a daily basis.
- The **coordination of DPOs:** correspondence was sent to various member organisations to encourage the participation of people with disabilities. DPOs also monitored the work of the waterpoint managers, as it was important that people with disabilities were capable of the job.

15.2 Role of disabled people/DPOs as WASH partners

There is a strong case for DPOs and disabled people to work in partnership with WASH service providers, bringing a number of inherent benefits: understanding of and advising on disability issues, acting as a positive role model for disabled people and the community, bringing existing networks of DPOs, capacity-building of DPOs acting as an ongoing resource, in terms of monitoring ongoing progress and impact.

Involvement of disabled people in development projects from the outset 'may help to pre-emptively resolve accessibility issues that may otherwise arise later in the project [and] reduces the chance of expensive retrofits of water points and toilets further into the project' (Fernandes et al 2012).

Disabled people in high status roles – such as trainers or researchers – can provide positive role models for other disabled people who may not have imagined the possibility of becoming independent. See Box 12 for an example.

> **Box 12: Disabled people as project implementers**
>
> In 2011, a seven-week visit was organised for Huy Nguyen, an Australian engineer and wheelchair user. The aim of the visit was to build an understanding of how the needs of people with disabilities could be incorporated into WASH programmes in Timor Leste.
>
> As well as addressing physical limitations related to access, the project also attempted to address social and cultural barriers that prevent people with disabilities from accessing WASH. One way that this was done was for Huy and a wheelchair user from a local DPO, Joel, to visit communities to meet other people with disabilities and their families, talk about their lives and access to WASH, and provide information to community members and local schools about disability (see below). Huy and Joel found that people were happy for them to visit and embraced the opportunity to discuss their challenges openly with other people with disabilities who might understand their situation personally. They also mentioned how Huy and Joel's visit was a positive example about what they could achieve in their own lives. Some
>
>
>
> felt inspired to gain more independence, for example through seeking employment or accessing assistive devices such as a wheelchair.
>
> In many communities, people were surprised to see people in wheelchairs coming to their remote villages, and even more surprised when they realised that they were visiting in the capacity of trainers.
> (Adapted from Fernandes et al 2012)

Stage A	Stage B	Stage C
Situation analysis, awareness raising, partnerships, consultation with disabled people…	… resulting in practical initiatives within a broader WASH programme	-

16.   Capacity building

16.1   Staff capacity building

Over the last three years, WaterAid UK has followed a structured staff capacity-building programme, as part of their Equity and Inclusion Strategy (Gosling 2010). The programme begins by giving Equity and Inclusion awareness to one member of staff from each country programme. These 'focal persons' then conducted the same awareness-raising for their own country programme staff (WaterAid nd). Awareness raising focuses on 'Why do it?', followed by training on 'How to do it'. In collaboration with WEDC, technical training was provided to support staff with the information,

skills and confidence to take practical steps to address equity and inclusion in their work (Jansz et al 2013).

World Vision Mali has provided training on accessibility and inclusion to their senior leadership team, field staff, WASH agents, and other relevant implementing partners.

Stage A	Stage B	Stage C
-	Systematic and structured training as part of organisational strategy/ objectives.	

16.2   Training for local WASH committees

World Vision Mali also provides training to village water and sanitation committees. As part of this training they include an awareness raising session for committee members on 'improving access and use of WASH facilities' (see section 10.5).

16.3   Training for sanitation artisans/entrepreneurs

World Vision Mali have also trained local artisans in two regions of Mali to make different types of moveable seats with different cost levels, eg out of pipe (more expensive) and out of wood (less expensive and lighter to lift on and off the latrine). These artisans provide a resource base for the production of seats when the need arises. They also attend artisan fairs, which is an opportunity for them to share their new ideas and technologies with other artisans.

Plan Indonesia has also conducted training for sanitation entrepreneurs (see section 2.6.1).

16.1   Community awareness raising

In Timor Leste, efforts to design accessible water points and latrines were complemented by a series of activities and discussions aimed at building understanding about disabled people and their rights (Fernandes et al 2012). One type of activity was disability simulation, where non-disabled community members were asked to 'try and access the toilet or visit various places around the village while using a wheelchair or blindfolded. This activity allowed villagers to talk openly about the challenges faced by people with disabilities and older people' (ibid).

17.   Cross-cutting and multiple discriminations

There is a tendency to categorise people into one particular group – women, ethnic minorities, disabled people and so on. It is easy to forget that a person can fall into more than one group, thereby experiencing multiple discrimination, but also to fall between the cracks of programmes that target specific groups. For example, it is common for disabled women to be excluded from programmes aimed at women, but also from programmes aimed at disabled people, which can end up being dominated by disabled men.

17.1   Stigma and discrimination

The UN Special Rapporteur highlights issues of stigma and discrimination, linking stigma explicitly to water sanitation and hygiene, emphasising that:

'States cannot fully realise the human rights water and sanitation without addressing stigma as a root cause of discrimination and other human rights violations' (de Albuquerque 2012: 1).

A key recommendation is that 'human rights institutions as well as [civil society organisations] should explicitly address stigma as part of their work, empowering stigmatised individuals to claim their rights and supporting States to address stigma as part of their human rights obligations' (*ibid*:21).

17.2 Programme aimed at tea garden workers also considers disability

In a programme to improve access to WASH for tea garden workers in Bangladesh, WaterAid had to overcome serious attitudinal and institutional barriers to gain access to this community who are one of the most remote, vulnerable and marginalised groups in the country. Nevertheless as part of the programme, WaterAid continued to ensure that disabled members of this marginalised community could access facilities, by constructing tube wells with pump handles at a low height for ease of access, 12 accessible latrines with guide ropes for people with visual impairments, and toilet seats for those unable to squat (Ahmed 2012).

Stage A	Stage B	Stage C
-	Inclusive design approach applied in wider WASH programmes	

17.3 Participation – digging deeper in Tanzania

During the planning phase of a WASH project in the town of Bashnet, Tanzania, WaterAid identified that, in a community inception meeting, the participation of women was equal to that of men – in terms of numbers present and their active participation (Ndesamburo et al 2012). However, only two of the 10 disabled people in the community attended, both of them disabled men, and they did not participate actively. No disabled women were there.

Having recognised this, a separate meeting was held for disabled people and a number of frail older people. At this meeting, both men and women actively voiced a range of issues that had not been expressed in the community meeting, including barriers caused by infrastructure design, and financial constraints. As a result of these issues raised, adjustments were made to the design of water points. Free water was also provided to the poorest, who were identified by the local government authority in consultation with the community. Once the final list was agreed, it was issued to the Government water utility.

"Following this, a number of other meetings were carried out with community members, including meetings with disabled people, to plan and design WASH services. The new adaptations appear to have made the water points more accessible for everyone in the community. Some aspects of the physical burden that women are faced with when collecting water were mitigated, and disabled women and men can now more easily access the water point as a result of the modifications. In addition, three women, including one disabled woman, are members of the [town]

Water Board, making up one-third of all members. The Board also has representatives of older people." (ibid:463)

Ndesamburo et al emphasise that an inclusive approach to programming requires implementers to 'actively and continuously enquire into who is being excluded and whose voice is not being heard. The most effective way to monitor the effectiveness of this enquiry, and responding actions, is to document our learning… [including] who attends meetings, who voiced their concerns and who did not, and what steps were taken to ensure those who remain excluded can participate… We need to disaggregate gender, age, disability, and ethnicity. Not only will this provide us with an opportunity to reflect on our efforts, it may also provide an opportunity for learning.' (2012:464)

Stage A	Stage B	Stage C
-	Proactive inclusive consultation applied in usual WASH project	-

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