Chapter 3

Understanding the water supply and sanitation sector

This chapter is mainly for readers who have had little previous contact with the water supply and sanitation (WATSAN) sector, including disabled people, disability service providers, and agencies promoting social inclusion and advocacy on rights and access.

Policymakers, donors and international organisations are now starting to address the issue of disability in development programmes. However, in terms of implementation, it is often not clear what each sector needs to do in practice. In the WATSAN sector there is some recognition among professionals that they should, in principle, be addressing the needs of disabled people, but most have never considered the issue. It has never been part of their training and most would not know where to start. There is very little information on the issue that is relevant to engineers.

The disability sector, and DPOs in particular, have a key role to play in advocating for the inclusion of a disability perspective in the WATSAN sector. But it is an unfamiliar area to most people in the disability sector, with different perspectives and a different language, that can hinder communication between the sectors. The risk is that engineers see disability as irrelevant to them, or as yet another 'cross-cutting issue' to be mainstreamed, adding to 'issues overload'.

The information in this chapter is designed to help the disability sector understand more about the WATSAN sector, and to think more strategically about effective ways to get practical change.

3.1 Water supply and sanitation – the great divide

Water supply and sanitation are grouped together for historical reasons more than practical ones. In most rural and peri-urban communities they have little or nothing in common, require completely different skills and are implemented by different organisations in different ways. The only time there is a close link between water supply and sanitation is when a sewerage system (underground pipes connected to individual houses

to carry away liquid wastes) is in place. This is rare in most countries, and restricted to the centres of major towns and cities.

For most organisations, water supply is an institutional issue driven by technology and founded on the needs of the community. Engineers work in a variety of ways with different partners to provide and manage water supplies for communities. Decisions on what to build and where are based primarily on technical and political criteria, founded on general considerations of demand and usually with little thought for the needs of the individual.

In contrast, domestic sanitation is viewed as a social issue founded on the needs of the family, with minimal involvement of institutions. Technical inputs are small, with the major focus being on raising demand from users. The role of institutions is usually limited to setting standards and monitoring uptake and quality.

3.2   Who's who in the water supply and sanitation sector

Government
Government generally plays a major role in water supply. A ministry or government department usually takes responsibility for national policy and strategy, and setting and monitoring standards. They are also often responsible for constructing large water systems such as those covering large areas or major urban communities.

Smaller systems are usually the responsibility of local government. Local government is also commonly responsible for operating and maintaining water supplies, although in some larger towns a separate water organisation may be established to carry out that role.

Government's role in sanitation provision is often weak and diverse. It is common for the Ministry of Health to take overall responsibility, but this is usually interpreted as setting standards and monitoring. Sometimes a water authority may take partial responsibility for sanitation, but this usually only covers people who are connected to public sewers. The biggest government partner in sanitation is normally local government. They are usually responsible for solid waste collection, keeping drainage channels clean, and the provision and operation of communal toilets. In most countries government sees domestic excreta disposal as the responsibility of the family.

Non-governmental organisations

Non-governmental organisations (NGOs) play a major role in the provision of water supply and sanitation, particularly to poor rural and urban communities. They tend to work more closely with the communities they wish to serve and often develop close working relationships with the local government.

Private sector

The private sector plays two roles in WATSAN. It is commonly the sector that actually builds the systems. They provide the raw materials, deliver them to the area, drill the boreholes, construct the pipelines and dig the pit latrines. It is also common for the private sector to take responsibility for the detailed design and supervision of construction of major systems. The companies that do this are usually called consultants.

Donors

A large proportion of new WATSAN schemes are funded by external organisations, such as international banks and rich countries. These donors have a large impact on what and how things are done. Since they provide a large part of the money, they can specify how it is spent and where.

Communities

The role of communities in rural water supply provision has increased dramatically in recent years. They now play a major role in planning, design, operation and maintenance of systems.

They play a lesser role in sanitation, but are still often involved in mobilising community members, persuading households to comply and subsidising the poorest.

3.3 Communicating with the water supply and sanitation sector

Communication between the disability sector and the WATSAN sector can be hampered by different perspectives, different ways of working and ways of using language. It may take time and patience to understand each other and to work out how to capitalise on the strengths of each. The onus is on the disability sector to communicate in a way that will be heard, understood and acted on by the target audience.

Box 3.1. New Bubajjwe Primary School accessible latrine

Save the Children in Uganda were involved in installing toilets in a Primary School in Kampala. The school insisted that one toilet be accessible to a student who used a wheelchair. The project engineer wanted to do something, but had never seen accessible facilities, and had no information, so initially he felt helpless. Fortunately an occupational therapist from a local disability NGO brought miniature 3D models of accessible latrines to show the teachers and engineer. When the preferred option was agreed, he drew up detailed measurements which the engineer felt confident to implement.

The design was not perfect and the engineer can now see its drawbacks. Next time he says he will have the confidence to adapt the specifications and try something different.
(Case-study 9.29, page 242)

Concepts versus designs

For disabled people, the achievement of rights only makes sense if these are turned into relevant solutions that produce practical improvements in their lives. However, a non-technical person may lack the knowledge or confidence to explain in concrete terms what form those solutions might take. As a result, the discussion tends to remain abstract and conceptual.

By contrast, the experience, skills and strengths of engineers are in working out what needs to be done, the best way of doing it, and then getting it done. While DPOs are presenting an argument about access for disabled people, the engineer is likely to be three steps ahead, enjoying the idea of a new challenge and sketching some designs on the back of an envelope.

In other words, each sector has a similar goal in mind, which is to develop services and facilities that meet the needs of all in the community. Each sector has a different set of perspectives, experiences and skills, and a different contribution to make (Box 3.1).

Decision-making processes

Engineers tend to make decisions in different ways from people working in the social sector. Traditionally, the engineering decision-making process is linear: a factual analysis is followed by a professional conclusion on the solution and design of a facility. This may be checked by a line manager for accuracy, but will not usually look at the issue from a different perspective.

Engineers in general tend to prefer logical argument: this is the problem, so this is what we would like you to do about it.

Many engineers are used to working as individuals rather than in teams, and may find it unusual to work in a multi-disciplinary way, with a range of perspectives and opinions, which is the norm in the social sector.

The language divide

In all communication between people, there is a gap between what the speaker means and says, and what the listener hears and understands. Many of us spend our time trying to bridge that gap, to find quicker and more effective ways of communicating with others. We do this by developing short-cuts: we use acronyms like MDG and DPO; we give words a particular meaning in a specific context, such as 'access', or 'process' (Table 3.1), and we develop a common understanding about the background of a particular activity or approach, which saves us having to discuss and explain every time.

The result is that much of our communication is unspoken, the context is understood, and the words have become a short-cut to conveying a much wider meaning. When we know the listener well, or have similar experiences and background, this makes communication more effective.

The problems arise when we need to communicate with people we do not know well, who have a different background and experiences. Our efficient, technically precise language is heard and perceived by others as impenetrable jargon, with the result that they stop listening. We may not realise that differences in understanding even exist, so we do not

> **This section draws on linguistic theory as applied to the issues of communication (and miscommunication) between gender 'specialists' and engineers (1).**

Table 3.1. Examples of words given different meanings by different sectors

	Watsan sector	Disability sector
Access	Available to a household, as in: '24% of households in rural areas have access to safe water'.	The possibility to reach, enter, and use a facility, as in: 'The communal toilets do not provide access for wheelchair users'.
Stress	A force acting within a section of steel or concrete	Psychological pressure
Process	a) Project design and implementation from start to finish (b) Water treatment process	Discussion, negotiation towards project implementation

Table 3.2. Potential areas for miscommunication

Speaker	Listener	Result
Uses unfamiliar words, acronyms, jargon, e.g. DPO, CBR, impairment, social model.	Doesn't understand.	Listener switches off
Uses familiar words with understood specific meaning, e.g. disabled people.	Ascribes different meaning, e.g. 'people in wheelchairs' 'ex-soldiers with an amputation', so misunderstands.	Listener switches off
Uses words with assumed understood context, e.g. equal opportunities, right to participation, inclusion	Substitutes different context, e.g. this is the responsibility of politicians, social welfare officials, social development sector, so assumes irrelevant.	Listener switches off
Format of presentation unfamiliar, e.g. emphasis on abstract conceptual reasoning, flow-charts	Feels intimidated. Doesn't understand	Listener switches off

recognise the need to decode short-cuts, clarify and correct mistaken assumptions. As a result, the listener hears the words, but may understand a completely different meaning from what is intended.

Even if all the pitfalls in Table 3.2 are avoided, the content of the message must be perceived as relevant by listeners. If they cannot make a link with their own area of work and responsibilities, it will be perceived as irrelevant. The disability sector must start by making the relevance of their message absolutely clear from the very beginning.

3.4 Relevant trends and concerns in the water supply and sanitation sector

It is useful to identify and understand the issues and challenges that currently face the WATSAN sector, and to demonstrate that addressing the issue of disability will contribute to, rather than detract from, other issues of major concern.

Coverage

Numerous challenges face the WATSAN sector in most low-income countries. At least 1.1 billion people in the world do

not have access to safe water, whilst 2.6 billion people lack access to basic sanitation. Every day, 6,000 children die from a lack of clean water and sanitation (2).

In relation to water, access means 'available to the household'*. Access is therefore not only an issue for disabled people. In Cambodia, for example, less than 10 per cent of the rural population has access to sanitary latrines, and only 24 per cent to clean drinking water (3). For many service providers, their top priority is to maximise coverage using their inadequate available resources, with a focus more on quantity than equity.

The disability sector needs to demonstrate that:

• Providing inclusive services costs very little extra;

• Services that meet the needs of all people can help to increase coverage;

• Including a disability perspective is therefore great added value.

Millennium Development Goals

The Millennium Development Goals (MDGs) are international development goals that aim to reduce poverty and promote human development in all countries. They are accepted by the UN and international agencies as a framework for measuring development progress (4). There are eight MDGs:

1. Eradicate extreme poverty and hunger.

2. Achieve universal primary education.

3. Promote gender equality and empower women.

4. Reduce child mortality.

5. Improve maternal health.

6. Combat HIV/AIDS, malaria and other diseases.

7. Ensure environmental sustainability.

8. Develop a global partnership for development.

Each MDG is sub-divided into several targets. Under Goal 7, Ensure environmental sustainability, there are three sub-targets, one if which is concerned with water and sanitation:

• Target 10 – Halve by 2015 the proportion of people without sustainable access to safe drinking water and basic sanitation.

* Some guidelines specify a distance, e.g. within 500m, others specify the time required, taking into consideration hilly terrain, time spent queuing and other factors.

The majority of low-income countries now use this target as a starting point for developing water-related policies and strategies.

The MDGs have been criticised for their focus on numbers and coverage, with no mention of equitable development. More importantly, disabled people are not mentioned at all, which has led some people to assume that the MDGs do not apply to disabled people, which of course is untrue. Even if disabled people as a specific group are not mentioned, there are references to target groups within which disabled people are significantly represented.

The disability sector needs to:

- Emphasise that disabled people are among the poorest of the poor; and

- Show that where WATSAN strategies focus on 'marginalised', 'underserved', or 'most vulnerable' target populations, these clearly include disabled people.

Poverty reduction strategy processes and water supply and sanitation

An increasing number of low-income countries now produce poverty reduction strategy papers (PRSPs). These describe the country's policies and programmes, and allocate budget to promote growth and reduce poverty. PRSPs are prepared by governments through a participatory process involving civil society, private sector and funding agencies, including the World Bank and bilateral donors (5). Funding for WATSAN has historically been a low priority for most governments, so PRSPs present an opportunity to identify clear links between improved access to WATSAN and poverty reduction (6).

In theory, PRSPs emphasise participatory, country-owned national development strategies for reducing poverty. In reality, economic and structural reform policies are often developed outside the country, with 'participation' merely formulaic (7). Needless to say, disabled people are largely absent from both the PRSP process and the resulting strategies (8).

The disability sector needs to:

- Ensure that DPOs and disability agencies are represented on all PRSP task groups, including the WATSAN task group.

Sustainable livelihoods approach

The sustainable livelihoods approach is a way of putting

people at the centre of development, with the aim of assessing and improving the effectiveness of poverty reduction efforts. The use of a sustainable livelihoods framework and objectives helps those involved to understand, analyse and increase the sustainability of poor people's livelihoods.

A sustainable livelihoods analysis of WATSAN at household level can help to understand more clearly the links between water and poverty reduction. It can show how water not only brings health benefits, but also improves the overall well-being and livelihood of the household (9). For example, water can also provide a resource for household production, and increase the family income.

- **For the disability sector**, a sustainable livelihoods framework can provide a useful tool to analyse the constraints that disabled people face, that reduce their opportunities, and increase the poverty and dependency of the family as a whole. It can also be used to show that improving access to WATSAN for a disabled person can contribute to improving the livelihood of the whole family.

People-centred approaches

Traditionally, the WATSAN sector has followed a 'supply-led' approach. This means that services have been based on the equipment and designs available, rather than what communities and households need. For example, many WATSAN agencies provide one standard design of latrine or handpump throughout the country, because it is simpler and cheaper to mass-produce one design than to manufacture a range of designs from which local people can choose. However, this approach tends to reflect the needs of the majority (or the most powerful), and does not meet the needs of all communities, or all groups, especially the poorest, within a community.

The increased focus on MDGs and poverty alleviation has resulted in a range of approaches that aim to put people and their lives, rather than technologies, at the centre of WATSAN service planning and delivery (10, 11).

Demand responsive approach

The key feature of the Demand Responsive Approach (DRA) is that community members are given choices. These include:

- Whether to participate in the project;

- The level of technology and service they require, based on how much they are prepared to pay (based on the principle that more sophisticated systems cost more);

- When and how their services are delivered;

- How funds are managed and accounted for; and

- How their services are operated and maintained.

As governments struggle to meet the costs of providing water, they look for alternative sources of funding, through the use of the private sector and user contributions. Users are often willing to pay more for options that meet their priorities, such as privacy and convenience. A crucial aspect of DRA is to provide adequate information to the community, including the available technology options, to enable them to make choices. The project design includes procedures for providing information, and facilitating decision-making at community level.

In principle, DRA offers the possibility of providing inclusive design options as part of a range of technology options. However, the effectiveness of DRA depends on how demand is assessed. If the voices of only the most powerful are heard, then those in most need of improved services, such as women, the poorest, disabled people and many others, are very likely to be further marginalised and could be worse off than before (11). If people don't demand, service providers won't provide. But if disabled people don't know that accessible designs are possible, how can they know to demand them?

Box 3.2. NGO discovers why there's no demand

A representative of the NGO Forum for Drinking Water and Sanitation in Bangladesh attended a meeting where the issue of WATSAN for disabled people was discussed. As the organisation's research officer, he realised that his organisation had no information about disability in the areas where it worked. He saw an opportunity to do something about this. The following month a community baseline survey was planned for a new WATSAN programme. It was not difficult to add several questions about disability in the survey.

The results from the survey helped the organisation start to think more clearly what it needed to do about the issue of disability. A significant result was the finding that disabled people and their families do not demand accessible facilities, because they are unaware that the possibility exists. Messages about accessibility and its benefits are therefore essential, as well as the hardware. (12)

Approaches to participatory consultation

Participatory approaches can be used to ensure the participation of the poor in consultations carried out within DRA. Community groups are helped to collect and analyse information about aspects of their lives, in a way that helps them make decisions. A number of frameworks draw on participatory approaches that have been specifically adapted for use in the WATSAN sector, such as Methodology for Participatory Assessments (13), and Participatory Hygiene and Sanitation Transformation (14).

The focus on listening to disadvantaged groups could provide an opportunity for poor disabled people to make their voice heard. However, the effectiveness of all participatory approaches depends on the skills of the community facilitators. The danger is that if disabled people do not have the information they need to make choices, and are unable to make their views known, they are likely to remain marginalised by more powerful voices in the community.

The challenge for the disability sector is to:

• Gain an understanding of the 'people-centred' approaches being used in the WATSAN sector;

• Identify how disabled people's concerns can be considered alongside those of other poor and marginalised groups, as an integral part of existing processes;

• Show that additional, separate 'disability' approaches are not necessary;

• Create demand by disseminating information to disabled community members about accessibility options;

• Strengthen the capacity of national and local DPOs to participate in consultations and to make their demands known; to engage with WATSAN agencies on the best ways to assess the demands of disabled people;

• Be kind: look at the intentions behind the words, which may appear insensitive. Most are interested to learn, and to do their job properly.

References

1. Reed, B.J., Christie, C. and Fisher, J. (draft) *Did I Phrase that Correctly?* WEDC: Loughborough, UK. http://wedc.lboro.ac.uk/projects/new_projects3.php?id=19

2. Lenton, R. and Wright, A. (2004) *Interim Report of Task Force 7 on Water and Sanitation. Executi*ve Summary. Millennium Project, UNDP: http://www.unmillenniumproject.org/documents/tf7interimexecsum.pdf

3. Jones, H.E., Reed, R.A. and House, S.J. (2003) *Water supply and sanitation access and use by physically disabled people*. Report of field-work in Cambodia. WEDC, Loughborough University and DFID: UK.

4. World Bank (2003) *Millennium Development Goals*. http://www.developmentgoals.org/Hiv_Aids.htm

5. World Bank (2004) *Poverty Reduction Strategies*. http://www.worldbank.org/poverty/strategies/

6. WaterAid (2004) *Poverty Reduction Strategy Papers*. http://www.wateraid.org.uk/in_depth/policy_and_research/poverty_reduction_strategy_papers/default.asp.

7. Eurodad (2004) *PRSP: Eurodad's work on Poverty Reduction Strategy Papers*. http://www.eurodad.org/workareas/default.aspx?id=92.

8. Handicap International and NFOWD (2003) *Disability and the PRSP in Bangladesh*. A position document. HI-Bangladesh: Dhaka.

9. Nicol, A. (2000) *Adopting A Sustainable Livelihoods Approach to Water Projects: Implications for Policy and Practice*. Sustainable Livelihoods Working Paper Series. Overseas Development Institute: London. http://www.odi.org.uk/publications/wp133.pdf

10. DFID and WELL (1998) *Guidance Manual on Water Supply and Sanitation Programmes*. Water Engineering and Development Centre: Loughborough University, UK.

11. Deverill, P. et al. (2002) *Designing water supply and sanitation projects to meet demand in rural and peri-urban communities. Book 3: Ensuring the participation of the poor*. WEDC, Loughborough University: UK. http://wedc.lboro.ac.uk/publications/pdfs/dwss/dwss3.pdf

12. Jones, H.E. and Reed, R.A. (2004) *Water supply and sanitation access and use by physically disabled people: report of second field-work in Bangladesh*. WEDC, Loughborough University and DFID: UK.

13. Mukherjee, N. and van Wijk, Christine (eds) (2003) *Planning and Monitoring in Community Water Supply and Sanitation. A Guide on the Methodology for Participatory Assessment (MPA) for Community-Driven Development Programs*. World Bank Water and Sanitation Programme; International Water and Sanitation Centre: Washington. http://www.wsp.org/pdfs/mpa%202003.pdf

14. Sawyer, R., Simpson-Hébert, M. and Wood, S. (1998) *PHAST step-by-step guide: A participatory approach for the control of diarrhoeal diseases*. WHO: http://www.who.int/water_sanitation_health/hygiene/envsan/phastep/en/