

Disability inclusive flood action plan and WASH in a Bangladeshi community

Disability

Nazmul Bari and Broja Gopal Saha

Centre for Disability in Development (CDD)

Towards Inclusive WASH Sharing evidence and experience from the field



Background

Regular river floods in Bangladesh affect 20 per cent of the country, increasing to up to 68 per cent in extreme years.¹ Ensuring continuing access to safe drinking water and sanitation during floods is a major challenge faced by the affected population in general, but especially for people with disabilities (PWD).

From October 2009 to July 2010, the Centre for Disability in Development (CDD), working in partnership with local non-government organisation (NGO) *Gana Unnayan Kendra* (GUK) and with the support of CBM Australia, implemented a pilot project titled Disability inclusive Disaster Risk Reduction Project (DiDRR). The DiDRR project broadly addressed inclusive disaster preparedness with a sub-component on improved water and sanitation access for PWD. This case study focuses on the project actions and resulting changes regarding disability inclusive water and sanitation before and during floods, and how it benefited not only PWD but also the wider community.

Situation Analysis

Baseline WASH access

Prior to the project, water and sanitation infrastructure in Shreepur union² of Gaibandha district was poorly constructed

and unhygienic. Many of the existing latrines were temporary, flimsy and difficult to use, even for people who did not have a disability (Figure 1). The local community typically collected water from tubewells, ponds and rivers. Of these three water sources, the tubewells were the only source of safe drinking water. Pond water, used for multiple purposes, was not safe to drink. During the dry season, it was very difficult to collect water from the river, as water recedes and it takes considerable time to travel to and from the water source.

Neither the existing latrines nor the tubewells had been constructed to account for the needs of PWD. Throughout floods, most of the communities' regular tubewells and latrines were submerged under water. This made life extremely difficult for people to continue to access safe water and sanitation facilities, in particular those with disabilities. Among the 334 persons with disabilities covered under the baseline study of the project location, 97 per cent reported that they faced difficulties accessing safe drinking water during floods. With regard to using latrines, 96 per cent reported that it becomes extremely difficult during this time. Consequently, most people with disabilities depend on family members when they need to use latrines.

A woman interviewed from Sreepur said:

We feel that our dignity is stripped each day when we need to depend on others to use the toilet; if only we could access and use the latrine and the water source by ourselves.

Baseline WASH access during flood times

In many cases PWD wait until the very last moment to evacuate to safe locations. Faced with rising flood waters, family members sometimes prioritise the protection of assets before assisting with the evacuation of relatives; this is especially the case for those who require extensive mobility assistance. In most cases the emergency flood shelters

Location

» Gaibandha District, North Bangladesh



Disability

¹ Government of the People's Republic of Bangladesh (2010) *National Plan for Disaster Management 2010-2015*, Disaster Management Bureau Disaster Management & Relief Division, April 2010.

² The local government administrative level in Bangladesh.

Case Study 10

Figure 1
A common and inaccessible unhygienic toilet, Gaibandha district, Bangladesh

Broja Gopal Saha, CDD



are located far away and families believe it is too difficult to shift PWD to these locations. Among the 334 PWD interviewed, 98 per cent did not receive any external assistance for evacuation during the last flood prior to project initiation.

In some cases PWD prefer to stay in their submerged homes on raised platforms compared to the alternative of inaccessible and overcrowded shelters. The absence of accessible latrines and sufficient safe drinking water at emergency points are further disincentives to evacuate to safety. Sometimes one of the family members stay behind with them, but in some cases PWD remain in the flood zone alone. In other instances, family members with disabilities are the automatic choice to stay behind and guard the household's belongings.

Due to the distance and overcrowding of official flood evacuation centres, villagers mostly choose to take refuge in temporary settlements on a nearby embankment. These settlements are close enough to their homes that they are able to make quick visits home to guard their assets against theft. The living conditions in the temporary settlements on the embankment are bad and particularly challenging for PWD. Heavy rain makes the embankments muddy and slippery, and consequently movement is extremely difficult especially for older people and those with mobility and visual disabilities. In particular, access to safe water and latrines was a huge challenge.

When water points become submerged the women of the family must travel even further distances to reach a safe water source and then carry the water back to the embankment. PWD are even dependent on others for water supply during this time. As a result many people are forced to use contaminated water, which leads to increased incidence of water-borne diseases including diarrhoea.

The prevailing attitude of the community is that PWD do not need to be able to access and use water points and latrines independently during floods, as they can rely on their families. There was little awareness of how independent access links to dignity.

Approach taken

To enable the successful participation of people with disabilities in the DiDRR project, project staff worked simultaneously with PWD to build their capacity and confidence to participate, as well as with the community and local government to create a supportive and enabling environment for disability inclusive development.

People with disabilities living in the community were first contacted, and they and their family members were briefed on and encouraged to participate in the project. Next, they were provided with information and training on vulnerability and capacity assessment and the basic principles of disaster response and recovery (DRR). Thirty-five assistive devices, such as tricycles, were provided to PWD to improve their mobility. This also enabled their participation in meetings and project work.

At the same time, community and local government representatives were sensitised to disability issues. Training on the barriers that PWD face regarding inclusion was incorporated into the existing training on DRR provided to union and ward level disaster management committees. Through this process, it was discussed and agreed to create dignified opportunities for the inclusion of PWD in disaster management and WASH projects for the community.

Disability

Case Study 10



Figure 2

A woman using a new, accessible and raised tubewell at her home, Gaibandha district Bangladesh

Broja Gopal Saha, CDD



Figure 3

An accessible community tubewell in use at the market, Gaibandha district Bangladesh

Shumon Ahmed, CDD

Identifying WASH needs in the community

Through discussion with the community, PWD, their families, local government and administration, it was decided to jointly build accessible safe water and sanitation facilities in the community. During this training and sensitisation, community members were also made aware that accessible infrastructure, while explicitly designed for PWD, also has the capacity to benefit all members of the community—especially older family members.

To encourage the participation and involvement of the community and local government, a wide range of opinions were

sought and considered in identifying the community locations where the accessible tubewells would be installed (Figures 2 and 3). It was also agreed that to best meet the community's needs, accessible latrines would be built in the homes of PWD as well as at community places. Community places are usually locations where everyone has access, such as the market or bus stations. Normally the community latrine sites are government-owned, but sometimes the land is donated by private landholders.

As part of the planning process, the community established criteria to ensure the most appropriate people and locations were selected to receive the new infrastructure (Box 1).

BOX 1 Selection criteria as decided by the community

For homes:

- » Households most at risk to floods
- » Gender balance
- » Person with disability and family financially not able to undertake the construction
- » Family agrees to contribute to the construction (labour, land, soil)
- » The person with disability owns the land/room
- » The person with disability and the family agree to give shelter to their neighbours during flood
- » The person with disability and the family agree to allow neighbours to collect safe drinking water from their new accessible tubewell

For community locations:

- » Locations where community people take refuge during flood
- » Locations where there is a daily presence of community members in large numbers, for example the village market, a local government office, or an educational institution
- » Proximity to home(s) of PWD

Disability

Case Study 10

Figure 4

A man uses a new accessible and raised toilet in Gaibandha district Bangladesh

Broja Gopal Saha, CDD

**Figure 5**

The accessible rescue boat includes ramp access, accessible toilet, drinking water tank and a solar panel for electric power, Gaibandha district Bangladesh

CDD



Flood proofing accessible WASH infrastructure

The project supported 18 PWD from six wards of Sreepur union to reconstruct accessible and flood proofed housing with latrines and tubewells designed to continue functioning during flooding disasters. Project staff identified PWD through information provided by community members and home visits. Flood proofing included raising the plinth, planting trees and grasses around the house to prevent soil from washing away in flood and installing a concrete floor (Figure 4). Participants and their families contributed land, soil and labour to this initiative. Throughout the process, PWD were briefed on the project, their opinions sought and they were encouraged to be involved in design and implementation.

To ensure sustainability, construction and renovation of household tubewells and latrines only proceeded if PWD owned the land or ownership to the land on which the room was constructed for the person with disability was given in writing by the family. This was done because typically PWD are discriminated against, overlooked by their families in ownership of land or rooms in a house. It was made compulsory that the PWD legally owned the land or house to ensure that they will not be evicted after the construction or renovation. The cost of one flood risk universally accessible house along with installation of one accessible tubewell and latrine was approximately BDT 99,000 (US\$1,212).

Disability

Case Study 10

Ensuring access to water and sanitation during flood disasters

Apart from the tubewells and latrines installed in homes, 30 existing tubewells from the community were reinstalled above flood level and made accessible in locations that would benefit the total community. Adaptions included the installation of ramps, increased size of platforms sufficient to manoeuvre and turn a wheelchair, raised place to wash clothes and use of colour contrast to assist people with low vision. These locations included markets, local government offices, education institutions, populated neighbourhoods close to higher ground and the embankment where people usually take refuge during floods. On average, the cost of reinstalling one tubewell in the community was BDT 7,500 (US\$92).

In partnership with local school management committees, local government and the community, the ground levels of two schools were also adapted to serve as accessible flood shelters, with raised areas. In these shelters, separate men's and women's latrines were constructed and tubewells installed with the same accessibility features as outlined for community water points.

Recognising the challenge PWD face in quickly evacuating flooded areas, the project also built a steel-bodied rescue boat with 60-person capacity and modified it for disabled access (Figure 5). People can safely board the accessible boat using the ramp, move independently within the boat and use the accessible latrine and water source. A storage tank was fitted on the roof where safe drinking water is kept. One solar panel was installed to allow light in the accessible boat at all times and people are able to charge their mobile phones to ensure that they remain within the communication network. The construction cost for the steel-bodied boat with all accessibility features was BDT 825,000 (US\$10,100).

Involving PWD in disaster preparedness means inclusive disaster preparedness

These WASH activities were not implemented in isolation but as an integral part of the DiDDR initiative. In the project area, Ward Disaster Management Committees (WDMC) were formed in each of the six wards³ with a requirement that at least 10 per cent of each committee's 25 members have disabilities and 30 per cent are women. All 150 members of the WDMCs were trained in disability awareness and disability inclusive DRR.

Each of the WDMCs were further divided into five different task forces with PWD represented on each of these task forces. The task forces included:

- (i) Early warning system;
- (ii) Search, rescue and evacuation;
- (iii) First aid
- (iv) Damage assessment; and
- (v) Water and sanitation.

All members received orientation on their specific responsibilities within these task forces to ensure inclusion. For example the members of the task force on water and sanitation are trained to support PWD and other vulnerable community members to access water and sanitation facilities during floods. If necessary they can communicate with different government and NGOs to deal with WASH needs in disaster situations.

In addition, people are assigned to the repair and maintenance of the accessible tubewells, including PWD and their families.

The inclusion of PWD in these WDMCs and task forces allowed increased consultations with them by other members; this yielded three major benefits. The first benefit was that people with disabilities gained confidence because they were able to participate and contribute. The second benefit was WDMC and task forces could easily seek the opinions of the people with disabilities. This allowed WDMC and task forces to understand PWD barriers and respect their ability to contribute. Finally, everyone learned it is important to ask for the opinions of people with disabilities in all matters that concern them.

Disability

Case Study 10

³ On an average each ward has a population of 4,000 to 5,000 people



Figure 6
This boy has been able to increase business at his tea stall, because of easier access to a community tubewell in the market

Shumon Ahmed, CDD

The process, experiences and learning acquired from the initiative were documented and disseminated at national and international levels. Representatives from the media were taken to the project location. Their coverage allowed these experiences to be widely spread. Case studies and articles were published. Papers on the learning were presented at national and international conferences.⁴ A woman with a disability from the project location also participated as a co-presenter at a conference in Qatar in early 2012.

Project impacts

PWD using these facilities are happy and say they feel empowered by their ability to independently access the toilet and collect safe drinking water from tubewells. They no longer need to wait for a family member for support. Since the project was completed, an adolescent boy with physical disabilities has opened a tea stall near an accessible

tubewell in the market (Figure 6). He said that many people visit his stall to drink tea while visiting the well nearby. The accessible well has also made it easier for him to collect water. This is the first time he has run a tea stall.

Spin off benefits of the project are also noteworthy:

- » The local community is now more receptive to considering the needs of PWD in general (not just in DRR)
- » PWD are now being included into other development projects in the area
- » The dignity and self-esteem of PWD has improved because they feel like they are making a worthwhile contribution to their communities.

It is estimated that within the project period 9,000 people are benefitting from the inclusive WASH facilities of the project.⁵ CDD believes that the project has succeeded in creating examples of disability inclusive WASH. CDD intends to continue to disseminate the learning acquired at local, national and international levels. It is expected that it will encourage future construction projects to consider disaster risks as well as accessibility issues concerning PWD.

This project ended in June 2011, however there are plans to track and record the sustainability aspects through follow-up visits, consultations and observation with the support of the local partner organisation.

Challenges and learning points

In the beginning, PWD were mostly seen by the community as recipients rather than as contributors. The attitude of the community gradually started to change positively as the project focused on:

- » providing the community with appropriate information on disability;
- » creating opportunities to interact more with the PWD; and
- » promoting an environment where PWD could demonstrate their potential.

⁴ For example the 5th Shafallah Forum on Crises, Conflict and Disability, Doha, Qatar in 2012, the CBR Conference at Manila, Philippines in 2011 and Conference on Disability and Emergencies, Oslo, Norway in 2011.

⁵ Population at the six wards of the project is estimated at 24,000. All are not necessarily affected by flood.

Case Study 10

Disability

At first it was difficult to include PWD, particularly women, because they lacked confidence. They were used to receiving services rather than making decisions. Involving and encouraging them from the start was critical to helping them feel ownership of the project.

Environmental barriers restricted the participation of PWD in project meetings. The local path becomes very muddy during rainy season thus access becomes near to impossible for PWD. Assistive devices helped, but this was still very difficult and remained a challenge.

Despite the selection process, there were some challenges involved in selecting final locations for the installation of the tubewells and construction of latrines. There were strong opinions from a few local leaders and influential people to select homes of PWD with whom they enjoyed a good relationship. Many of these people were not in flood-affected areas, were not poor or did not meet the selection criteria. In one or two cases they also attempted to consider people who in reality did not have any disability. The local partner as well as CDD discussed the matter with these leaders and explained the purpose of the initiative and why their nominated people could not be selected. The local government representatives were also involved in this negotiation process.

The local mason and labourers did not have skills and experience in installing accessible tubewells and constructing latrines. They were first oriented and then provided with guidelines to make sure that all installations and constructions were accessible, safe and user-friendly for persons with disabilities. During installation, staff members of local partner organisations as well as members from the WDMC were on site to ensure installation met design guidelines but nevertheless some facilities were not fully compliant with the guidelines. In such cases, the construction was redone to ensure that they were user-friendly and safe.

One of the foreseen challenges is the repair and maintenance of the community tubewells. The project supported the formation of task forces on WASH. It is intended that members of this task force with the support of WDMC will play a key role in ensuring repair and maintenance of the community tubewells. The local government had also committed to extend financial and technical support in this process. However, if there is a requirement for a considerable amount of funds to repair these facilities, it may become a problem unless there is additional support available. Before the end of the project, it was discussed that if such a need results the task force will raise local funds for the repair.

The WASH facilities of the project benefit a large number of people from the community alongside the project participants. The active and meaningful involvement of PWD, their families, the community and local government in the whole process is central to success and sustainability. There is undoubtedly a sense of ownership by all the actors, and they are happy and eager to share their learning. Universally accessible WASH facilities along with other inclusive DRR activities of the project have drawn interest of many mainstream development, disability and disaster management actors locally, nationally and internationally.

Finally, participants clearly demonstrated that if opportunities, services, respect and dignity are present, people with disabilities can contribute as much as their neighbours to community development.

Authors

Nazmul Bari

nazmul.bari@yahoo.com

Centre for Disability in Development (CDD)

Broja Gopal Saha

Centre for Disability in Development (CDD)

Disability

This case study is one of sixteen from the Towards Inclusive WASH series, supported by AusAID's Innovations Fund. Please visit www.inclusivewash.org.au/case-studies to access the rest of the publication and supporting resources.

Case Study 10