Water and sanitation for all: practical ways to improve accessibility for disabled people. 1: Accessible handpumps and sanitary latrines by and for disabled people in Bangladesh

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MAXIMIZING THE BENEFITS FROM WATER AND ENVIRONMENTAL SANITATION

Water and Sanitation for all: practical ways to improve accessibility for disabled people

1. Accessible handpumps and sanitary latrines by and for disabled people in Bangladesh

MD Hannan, Bangladesh

Introduction
BPKS is a self-help organisation of disabled people in Bangladesh. Its activities include:
- Promotion and development of Disabled People’s Organizations for Development (DPODs) at local village and sub-District level;
- Education and training, and economic opportunities;
- Provision of assistive devices, home-based therapy, referral services;
- Advocacy and representation.

The handpump and latrine programme
Existing facilities, such as hanging latrines (Figure 1 in the general paper by Hazel Jones), or pit latrines with unstable earth floors (Figure 2 in the general paper by Hazel Jones), are inaccessible for most disabled people. A household handpump and sanitary latrine are therefore installed for the beneficiary family. A basic design is used, with modifications according to the requirements of each household.

For the user in Figure 1, the pump has been installed near the edge of the apron, to allow the user to reach it from his wheelchair. A wide concrete sitting platform (Figure 2) allows the user to sit to operate the pump, or to bathe.

The latrine has a brick superstructure with a smooth path or ramp to the entrance, which is wide enough for a wheelchair to enter (Figure 3). The toilet has a raised seat, and support rails attached to the floor or side walls.

Figure 1. Handpump with concrete apron
Figure 2. Handpump with concrete apron
**Approach to implementation**
1. Village level DPODs decide which members would benefit most from the handpump and latrine;
2. A needs assessment of the individual disabled person is carried out;
3. The design is modified to suit individual users’ needs;
4. The latrine and handpump are installed;
5. Information is provided for users about the use and maintenance of the facilities.

**Design variations – handpump apron**
The dimensions of the sitting platform can be adjusted to suit the user’s requirements. In one family, for example, a second sitting platform was included at the request of the women, who found it comfortable for carrying out water-related tasks (Figure 4). For another user, the height of the sitting platform was increased, to enable him to reach the pump handle (Figure 5).

The design and dimensions of the toilet seat can also be modified to suit the physical needs of users, or for reasons of cost (Figure 6 and Figure 7). The position of support rails is also decided in consultation with users (Figure 7).

**A case study illustrating the benefits of the programme**
Mr Raizuddin is a double amputee living in a rural area of Bangladesh, who uses a wheelchair to move around. The family’s pit latrine was inaccessible for him, and the family’s water was from a neighbour’s well, so he was very dependent on his wife to fetch water and for his personal needs. This meant a heavy workload for his wife, and as he was unable to earn a living, the family was very poor and getting poorer.

**Acquiring an accessible handpump and latrine enabled Mr Raizuddin to:**
- Pump water for himself and for his family,
- Use the toilet independently,
- Fetch water for family and personal use,
- Wash clothes, dishes and bathe his children,
- Start growing vegetables for food and income.

**Benefits to the whole family**
- Mr Raizuddin is no longer dependent on his wife for all his personal needs;
- He contributes to household activities and family income;
- His personal dignity and self-esteem have increased;
- His wife’s workload has reduced, so she can now go out to work;
- The family income has increased;
- The environment is healthier and the well-being of the whole family has improved.
Challenges
A number of challenges remain:
• The cost of this latrine is high compared with a typical local pit latrine;
• The range of design options is gradually increasing, but further options still need to be developed, especially lower cost options;
• Information dissemination about accessible designs is needed;
• Coverage is limited compared with the huge need.

Ways forward
• Collaboration with local WATSAN NGOs in Bangladesh to adapt and apply accessibility approaches in WATSAN projects;
• Financial support to beneficiaries through a revolving fund of DPOD.

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