Sustainable Community based Sanitation and the role of Women
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INTRODUCTION
The Community Based Sanitation (CBS) framework promoted and implemented by Bremen Overseas Research and Development Association (BORDA) Network looks at sanitation with a holistic and integrated approach. Sanitation is not only the provision of infrastructure or ‘hardware’ but a synthesis of various ‘software’ components like building capacities for behaviour changes particularly related to hygiene, making people capable of operating and maintaining the infrastructure provided, getting active cooperation and participation of various stakeholders like government, beneficiary communities and civil society, willingness of the involved stakeholders to ‘be the change’ towards improved sanitation along with the accepted and appropriate technologies. Women especially girls suffer most from inadequate access to water and sanitation. Their dignity, security and opportunities to development are infringed upon in the absence of appropriate sanitation. Community Based Sanitation (CBS) projects therefore, pay a special focus on women, ensuring that their needs are taken care of. By the inclusion of women right from the planning stage to management of the system, the CBS approach brings forth the successful contribution of women in making the CBS systems sustainable and effective as sanitation solutions.

SANITATION STATUS
Growing urban centres in all developing countries are faced with the challenge of exponential growth in the demand and supply gap of safe and clean water. This gap is widening as a result of growing population, polluted surface and ground water, over exploitation of water resources, wastage of rainwater and, a major concern - lack of appropriate sanitation facilities.

The causes of sanitation problems are multi layered as well as complex. At the political level there is lack of awareness of the issue among decision makers. People’s specific needs for sanitation are not addressed. These problems become compounded by financial and technical constraints. Blocked canals, flooded latrines cause entire city districts to flood with untreated sewage in wet seasons. In many places, commercial and industrial wastewater leak untreated into the soil. These leakages contaminate groundwater and endanger the environment. The supply of safe drinking water therefore comes under threat. Diarrhoeal deaths worldwide are caused by contaminated drinking water, inadequate hygiene and lack of sanitation facilities. In all this, the people who inadvertently are the most affected are the vulnerable group of people living in slums and low-income areas of the city as they are not connected to the public supply networks nor have access to safe sanitation. They pay inflated prices for these services and have no regular sewage management facility.

Better planning for water resource management, use of innovative technology and community participation can minimise the adverse effects of lack of sanitation facilities. The stress levels can be decreased by
- Reducing water contamination due to lack of sanitation facilities
- Preserving fresh water by means of effective wastewater management through treatment, recycling and reuse
- Increasing awareness, education and opportunities for participation for communities dealing with the issues of water scarcity and contaminated water

COMMUNITY BASED SANITATION
Community Based Sanitation (CBS) as the name suggests, addresses the issues of these vulnerable people as they go through the water cycle. The aim is to provide people living in densely-populated low-income areas, usually located in inner-city areas or at the fringe of industrialised zones with access to sanitation at the place where they live. This will in turn provide them the opportunity to have a clean and healthy environment and that they in turn do not contaminate the environment. Local, small scale
interventions that are managed by the communities themselves are more and more becoming the most appropriate solution.

To provide a fitting solution Bremen Overseas Research and Development Association (BORDA) has worked on developing a middle path involving the 'users' to come up with an effective solution. This is a solution that fits in the niche of cost effective and appropriate sanitation solution. The CBS approach fills the significant "gap" between inappropriate on-site sanitation (e.g. absorption pits) and the shortcomings of expensive conventional centralised sewerage collection and treatment systems.

The CBS approach has a strong focus on people and social management measures to ensure equal access and sustainable management of the sanitation facilities. With a CBS scheme, communities find their own informed demand, are given education about the connection between sanitation, hygiene and diseases and are encouraged to organise the operation and maintenance of sanitation infrastructure.

CBS projects are highly demand responsive and rely on active participation as well as contributions from target communities and municipalities. In the CBS approach specific mechanisms have been developed for planning and budgeting in order to make CBS compatible with administrative requirements of governments. According to requirements and abilities, a sanitation solution is planned, designed and constructed for and together with the community. This solution aligns the social, financial as well as the environmental components, in effect, implementing a model that has been ‘localised’.

A typical CBS intervention engages in the following steps:

- Identification of low-income areas in need of sanitation facilities
- Community selection
- Baseline studies in selected communities
- Evaluation of technical and social options
- Development of an action plan with communities
- Establishment of community based organisations
- Implementation of CBS infrastructure and DEWATS
- Capacity building for operation and maintenance

Selection of CBS-systems and components depends on existing requirements and capacities of implementing communities. Basic CBS system consists of a toilet component, a collection component, a treatment component and a disposal/reuse component. The choices for these components are presented to the communities and they make the selection. The selected options are assessed for certain sustainability criteria, and then implemented.

In all of this – women – who are the usual managers of water and sanitation related issues at home, the care takers, play a very important role. In the awareness building and information programmes related to sanitation, women and children are the first point of contact in the communities. Once they have understood the need they are the ones who bring about change in the community as they stimulate behavior change, directing and controlling how the family deals with sanitation related issues and ensuring that her family benefits from the solution.

During the evaluation and selection of sanitation related technology options, women along with children and men actively participate in the decision making process as they will be the ones using the facilities and in future operating and maintaining it. Their specific requirements like security, privacy, facilities for pregnant women, facilities for menstrual hygiene, place to wash clothes, collect water, health advice and care are all considered while selecting the technology and O&M of the sanitation facility. Though men are involved in all stages of the CBS implementation, it is the women who take initiative to operate and maintain the infrastructure provided as they will be the most affected in its absence.

Over 1000 successful implementation in South East Asia, South Asia and southern African countries has shown that this approach for providing sanitation solutions is working and can be scaled up to meet the growing demand.

**CBS Approach – Evolving with time**
BORDA’s CBS approach has been successful to a great extent in its efforts to provide appropriate sanitation solutions for the urban poor. This has mainly taken place as a result of appropriate technology selection based on the local specific needs especially keeping in mind that the operation and maintenance of the systems will be done by the local community itself.

At the start of the programme, this approach was driven to a large extent by the implementing NGO who had taken the responsibility of bringing about a mind and behaviour change of a selected beneficiary community to understand the need and demand for sanitation interventions. Based on the needs and demands, solutions were provided. Relevant stakeholders were involved in every stage of the implementation process to ensure that the programme would be sustainable. Everyone had a role to play. The sanitation solution was for the community but driven by the implementing NGO and supported by Government. On completion of the pilot phase, BORDA supported its network members – the implementing organisations, to disseminate the knowledge gained and set off awareness about the CBS approach by working for policy change, investment in sanitation and supporting other organisations in adopting this sanitation approach. This change in the programme outlook was taken in order to cater to the increasing demand through a more sustainable approach.

Communities were coming up with request for support, other implementing organisations were looking at CBS as an approach that would work, and the Government was also incorporating the social components in their sanitation programme approach. Therefore, BORDA based on its experiential learning developed a quality management system that ensures the involvement of all stakeholders and also insists on standard procedures so that the implementation process does not go wrong and that the most appropriate technology solution is provided to the communities. At this stage the CBS approach was no longer just an NGO driven approach where the NGO took the initiative and got the community and Government to contribute or participate in the process. In practice it had evolved to be an approach where any of the stakeholders could and were being the initiator and were together driving the programme.

The success of increased implementations and increased demand, where Governments were making the CBS approach as a best practice, a tried and tested successful model for replication and mass implementation, BORDA again modified its implementation process and developed the concept of a social enterprise – where more and more entrepreneurs from the communities can take charge of different aspects of the implementation chain while the Government and the NGOs would also fulfill roles of being service providers and funding support organisations. BORDA today is at the stage where it has taken steps into the larger arena by providing knowledge elements for software and hardware components of the implementation chain to service providers and decision makers, by constantly improving and improvising its technology options for CBS implementation and moving into mass production of prefabricated elements of the technical solution – elements of DEWATS modules and complete DEWATS modules for faster and quality implementation as well making the systems more cost effective. Through this, BORDA is now finding its place in the sanitation market and reaching out to a larger number of people by working with the government.

Women in CBS

Women play a central role in sanitation. In most societies, women are the main users, providers and managers of water, sanitation and health at household level. While fulfilling this role, they have amassed a great amount of insight and understanding of the local practices to ensure good health. The CBS approach builds on this strength by ensuring that they become an integral part of the implementation process. By the inclusion of women right from the planning stage to management of the system, the CBS approach brings forth the successful contribution of women in making the CBS systems sustainable and effective as sanitation solutions.

The CBS approach encourages women to be not just users of the sanitation facilities but also be involved in decision making for technology selection and operation and maintenance of the facilities.

Involvement of community members in the planning, technology selection, implementation and operation and maintenance of the sanitation interventions provides them with management skills as well as more knowledge of the political and governance methodologies and implementation strategies. Self Help Groups or Community Based Organisations formed within the communities for
sanitation provides members exposure to abstract forms of management such as decision-making, member selection for committees responsible for the condition of the facilities, information dissemination, and problem solving.

These new functions that the communities take up strengthen and empower them for community management. The formation of sanitation committees makes available organised structures for community engagement. Structures and procedures provide these committees, on behalf of the community, the ability and sanction for making decisions and recommendations. A sense of ownership and participation in the decision-making process forms a basis for sustainability of the established facilities. As women are an essential component of this process in the CBS implementations, their involvement (as they are the usual caretakers in society) ensures that their needs and demands are taken care of. This provides them with a sense of inclusion and therefore they assume more responsibility towards the sanitation facility ensuring higher effectiveness and sustainability of the intervention.

A Community Based Sanitation intervention at East Devadhanam, Trichy in Tamil Nadu, India¹ clearly demonstrates that the issue of sanitation quickly turned into an entry point activity for a more integrated approach to the provision of a wider set of decentralised services like solid waste disposal, improved drainage systems, education and awareness on hygienic aspects. The Community Based Sanitation system is operated and managed by the local Social and Hygiene Education Team (comprising of six Self-Help Groups), also called the O&M team. This team takes responsibility for the O&M of the sanitation unit. The membership of the O&M team is on a rotation basis, thus giving an opportunity to all SHG members to assume responsibility. However, at times, the membership in the O&M team and sharing of responsibilities poses challenges as some members are reluctant to give up their responsibility as well as the status gained as a result of this membership. All the members are women from the community itself.

In the CBS approach, Decentralised Wastewater Treatment Systems (DEWATS) with biogas digesters are also implemented. This can be for wastewater from a toilet complex or for small/medium tofu industries. The cheap biogas provides the women in the settlements with new income opportunities such as catering, small restaurant business and snack production (potato and cassava chips and many things more) and more economic autonomy/more self-esteem.

Benefits of access to sanitation are also clearly reflected in the CBS approach improving the health and well-being of people in general and women in particular. According to WASH (2006) sanitation interventions results in improvement of women’s health and well-being as:

- pregnancies are healthier,
- the experience of childbirth is improved,
- maternal morbidity and mortality are reduced,
- women are exposed to diminished risk of physical and sexual assault,
- the role of carer of the disabled becomes less demanding,
- the disabled experience improvement in their personal hygiene, health and independence.

If the special needs of women during the time of menstruation are taken into account a proper use of the toilet can be ensured; this is particularly important in public places and in schools. Girls more likely attend schools with clean water supplies and private toilet facilities (Wendland et al., 2011).

CONCLUSION

The Community Based Sanitation (CBS) approach initiated in the late 1990’s is still relevant as an approach for provision of adequate and appropriate sanitation for the more than 2.6 billion people without access to sanitation worldwide.

The main factors that have made the CBS implementations sustainable and therefore successful, have been the main principles on which it is based, it’s simple and robust technology approach, accessibility of the infrastructure, a representative and accountable sanitation management committee, economically beneficial for the community, improved health and shared knowledge about sanitation and infrastructure (technology) related subject among all stakeholders.