6th South Asian Conference on Sanitation (SACOSAN-VI)

BANGLADESH COUNTRY PAPER

Local Government Division
Ministry of Local Government, Rural Development and Co-operatives
Sixth South Asian Conference on Sanitation (SACOSAN-VI)

COUNTRY PAPER BANGLADESH
Father of the Nation
Bangabandhu Sheikh Mujibur Rahman
Prime Minister Sheikh Hasina has received UN's highest environmental accolade – Champions of the Earth – in recognition of Bangladesh's far-reaching initiatives to address environment and climate change. The annual ‘Champions of the Earth’ award is the highest environmental accolade that the United Nations confers upon outstanding individuals and organizations. Through the award UNEP recognizes Bangladesh's initiatives under Prime Minister Sheikh Hasina's government to prepare the ecologically fragile country for the challenges it faces from climate change and other environmental factors including water supply and sanitation.
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<td>ADP</td>
<td>Annual Development Programme</td>
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<td>BBS</td>
<td>Bangladesh Bureau of Statistics</td>
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<td>Bangladesh Rural Development Board</td>
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<td>Community Led Total Sanitation</td>
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<td>Fecal Sludge Management</td>
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<td>GDP</td>
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<td>ICDDR'B</td>
<td>International Centre for Diarrhoeal Disease and Research, Bangladesh</td>
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<td>IDWSSD</td>
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<td>JMP</td>
<td>Joint Monitoring Programme</td>
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<td>Ministry of Health and Family Planning</td>
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<td>MoLGRD&amp;C</td>
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<td>MTBF</td>
<td>Mid Term Budgetary Framework</td>
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<td>National Institute of Local Government</td>
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<td>Open Defecation Free</td>
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<td>Private Sector Participation</td>
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<td>Policy Support Unit</td>
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<td>SOCMOB</td>
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<td>Water Supply and Sewerage Authority</td>
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<td>Water, Sanitation and Hygiene</td>
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INTRODUCTION

Country Profile
Bangladesh emerged as an independent and sovereign country in 1971. With a total area of 147,570 sq. km and total population of 153.30 million, the population density is about 1050 persons per sq. kilometer. Bangladesh has a long coastline with the Bay of Bengal in the South, boarder with India in the East, West and North, and with Myanmar in the East. It has 8 Administrative Divisions, 64 Districts, 487 Sub Districts (Upazila), 4550 Union Parishads\(^1\), 11 City Corporations and 319 Paurashavas (Municipalities). Nearly 72% of the country's population live in rural areas, while 28% in urban settings. GDP growth rate is 6.51, with GDP and GNI per capita reaching USD 1,235 and USD 1,314 respectively in 2014-15 (BBS, 2015).

Development and Planning Framework
The Sector Development Framework (SDF), 2004 of GoB guides the planning, coordination and monitoring of all future sector development activities with a focus on devolution of authority to LGIs, user participation, economic pricing, public-NGO-private partnership, and gender-sensitivity. In 2011, the government revised the Sector Development Program and prepared the Sector Development Plan (SDP) for 15 years (FY 2011-25) for the water and sanitation sector. This path-breaking initiative undertaken by Local Government Division (LGD) has sought to sketch a bottom-up road map for providing safe drinking water and sanitation for all in a coordinated manner by all the sector stakeholders.

The development framework is further supported by Five-Year national development plans where development budget including administrative and recurring expenses are detailed out. The recent initiative in this regard is the Seventh Five-Year Plan (FY 2016-20). The proposed plan has set specific target related to water and sanitation which are:
- Safe drinking water to be made available for all rural and urban population.
- Proportion of urban population with access to sanitary latrines to be increased to 100%.
- Proportion of rural population with access to sanitary latrines to be raised to 90%.

Furthermore, the Medium Term Budget Framework (MTBF) approach has been introduced in 2005-06 to ensure optimum utilization of resources consistent with the strategic goals and objectives of the Government. Presently, 71 ministries and divisions including the LGD prepare their ADPs under MTBF. Furthermore, the government has adopted a long-term vision for the development of the country that is reflected in the long-term Perspective Plan

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1 Union Parishad is the oldest and lowest tier of local government representing 10 to 15 villages with around 5000 households. Nine wards form a Union. Each union is composed of 13 elected representatives including a chair, 9 members (1 from each ward), and 3 women elected members to reserved seats based on 1 female representative for every 3 wards.
The Perspective Plan sets the goals for the future and draws the course of action to achieve these goals by 2021 that coincide with the Golden Jubilee of the Independence of Bangladesh.

**Institutional Framework, legal Instrument**

The statutory responsibility for the sanitation sector is vested in the Ministry of Local Government, Rural Development & Cooperatives (MoLGRD&C). Within this Ministry, the Local Government Division (LGD) shares the responsibility of policy decisions, sectoral allocation and funding, as well as project appraisal, approval, evaluation and monitoring with the Planning Commission and the Ministry of Finance. LGD is also responsible for the administrative control of DPHE, LGED, WASAs and LGIs. Sanitation Secretariat, established within the LGD, is the national focal point to guide the overall sanitation improvement programs in the country. Coordination at the national level between government agencies, NGOs, development partners and the private sector is done through the National Forum for Water Supply and Sanitation (NFWSS) established by the LGD. Coordination at the local level is undertaken by Water Supply and Sanitation Committees (WatSan Committees) established in the LGIs. Policy Support Unit (PSU) has been established within LGD to look after the implementation of SDP, policies and strategies. The sector is supported by multilateral agencies, development partners, international and national NGOs. The institutional set-up of the sanitation sector in Bangladesh is shown in Figure 2.

![Diagram of institutional framework](Image)

**Figure 2: Government Institutional set-up of the sanitation sector in Bangladesh**

All legal instrument of the country is governed by the Constitution. Article 18(1) of the Constitution of the People’s Republic of Bangladesh states that “the state shall regard the raising of the level of nutrition and the improvement of public health as among its primary duties…”. All activities of the WSS sector are thus primarily aimed at improvement of public health and the environment. Under the Water Supply and Sewerage Act 1996, WASAs have been established in major cities, with the mandate of ensuring water supply and sewerage services within the cities. The Local Government (Paurashava, City Corporation, Upazila Parishad and Union Parishad) Acts of 2009 guide the activities of the WSS sector at the local level. The proposed “Water Supply and Sanitation Regulatory Commission Act 2015” will pave the way for formation of a “Regulatory Commission” for the WSS sector in Bangladesh that will function in an independent, accountable, and transparent manner to regulate tariffs, quality of service, and to protect public interests. The LGD has approved Water Supply and Sanitation...
Strategy 2014, which will guide the way of reaching sanitation target. The Water Act 2013 has been enacted to make provisions for integrated, development, management, abstraction, distribution, use, protection and conservation of water resources.

**BASELINE STATUS (2003)**

**Coverage Status**
A nationwide baseline survey was conducted in 2003 to assess the sanitation coverage in the country. The survey revealed an appallingly poor sanitation scenario. Only 33% of the households were found to have hygienic latrines, while 25% had unhygienic ones. About 55 million people (42% households) did not use any form of latrine. defecated in the open (National Sanitation Strategy, 2005).

**Coverage (Hygiene/Behavioral Change)**
In the national sanitation survey 2003, there were no defined indicators for hygiene and there was a paucity of information on the practices and facilities for washing hands with soap. However, UNICEF/WHO Multiple Indicator Cluster Survey (MICS) 2003 report showed that only 19.3% people wash hands with water and soap after defecation, 20% and 40.6% use ash and soil respectively for washing hands, and the rest 20% wash hand with water only.

**Policy/Strategy, Investment**
The National Policy for Safe Water Supply and Sanitation 1998 was the major guiding document of the WSS sector available until 2003. The GoB started to draft the Poverty Reduction Strategy Paper (PRSP) in 2002 that was finalized in 2005. The appalling sanitation scenario revealed in the national sanitation baseline survey in 2003 influenced the investment for sanitation. It was found that almost 20% of the surveyed households were hardcore poor and the main reason for not having latrine was lack of money. The government earmarked 20% of the ADP grant to the LGIs specifically for sanitation, for the exclusive use by the Upazilas, Paurashavas, City Corporations and the Union Parishads. The national Annual Development Program (ADP) allocated about 2.9% of the total development fund to water and sanitation sector in 2002-03 (ADP, 2002). However, WSS had been identified as a sub-sector in the ADP document, leaving the scope for deprivation of fund allocation for this sub-sector within the broader sector.

**Partnership**
Historically in Bangladesh a unique partnership among government, donors, NGOs, private sector and media has been observed for sanitation development. Under the overall leadership of the MoLGRD&C, different departments (DPHE, NILG, LGED, BRDB), LGIs, development partners (UNICEF, DFID, DANIDA, WHO, WB, UNDP, JICA, ADB, IDB, SDC), International and national NGOs (Water Aid Bangladesh, Plan Bangladesh, World Vision, Practical Action, Brac, DAM, NGO-FORUM, VERC, DSK, Asa, Max Foundation, etc.), collaborative agencies (WSSCCB, Wash Alliance, FANSA etc.) and a host of private sector organizations and media partners supported various WSS programmes. National Sanitation Task Force is the unique example of partnership.
ACHIEVEMENT (2003-2015)

Coverage
The political commitment of the government and a multistakeholder approach have led to remarkable improvement in sanitation coverage. According to JMP, in 2015 Bangladesh has made good progress towards MDG target. Open defecation has been reduced to only 1%, a milestone change from 42% in 2003. Improved sanitation coverage is 61%, an increase of 28% since 2003. Still 28% people are sharing latrines and 10% people are using unimproved latrines. A trend of sanitation improvement in the country since 1990 is presented in Figure 3.

The Government had the political will to prioritize sanitation at the central and lower tiers as part of the country’s poverty reduction strategy, which provided the road map for all levels of government and civil society to take and sustain action on sanitation. Advocacy from the central government down to the local governments, led by the MoLGRD&C with a clear single agenda to shift people from open defecation to fixed point defecation through construction of low-cost latrines – sometimes shared among two or three families – was the key factor in unifying the country around sanitation. The dissemination of long-tested sanitation promotion techniques including community-led total sanitation (CLTS) with followings dynamics contributed to achieve the results:

- Strong role of LGIs (Union Parishads, Paurashavas/Municipalities)
- Government- NGO collaboration at national, district, and sub-district levels
- Long-term assistance from donors/ development partners
- Media campaigns
- Technological innovations and creative marketing approaches
- Easy access to latrine materials and skill masons in a local market

Policies, Strategies and Frameworks
The political commitment of the Government of Bangladesh (GoB) to sanitation has been the major driving force for the sanitation movement in the country. This high level of government commitment has been reflected in various policy reform initiatives to improve effectiveness and efficiency of service delivery in this sector. The Policy Support Unit (PSU) of LGD with support and assistance from DPHE and other stakeholders provides technical assistance to the GoB to develop several water supply and sanitation related policies, strategies and guidelines. The women, children, differently able people, indigenous communities, disadvantaged, hard-core poor people and floating population have been mainstreamed in the policy documents. The major policies and strategies guiding the sanitation movement in Bangladesh are:
• National Water Management Plan, 2004
• The National Sanitation Strategy, 2005
• The Pro-Poor Strategy for Water and Sanitation, 2005
• The Sector Development Plan, 2011-25
• The Sixth Five Year Plan (SFYP), 2011
• The National Strategy for Water and Sanitation in Hard to Reach Areas of Bangladesh, 2012
• Bangladesh National Hygiene Baseline Survey 2014
• National Strategy for Water Supply and Sanitation, 2014
• Institutional and Regulatory Framework for Fecal Sludge Management (FSM) in Bangladesh (Drafting stage), 2015
• The Seventh Five Year Plan (FY 2016-20) (Drafting stage)

The Bangladesh National Hygiene Baseline survey, 2014 contributed immensely to the understanding of the current state hygiene practices. It has laid a platform to talk about menstrual hygiene management by eliciting the current situation. The report will serve as a baseline dataset to help the government, development partners, NGOs and private sector to set priorities, design and monitor WASH and health in development programs.

The SDP (2011-25) revealed that there are numerous gaps and overlaps amongst sector strategies. It was therefore proposed that all the existing strategies need to be streamlined into a single strategy which will incorporate all outstanding and emerging sector issues. Accordingly, the National Strategy for Water Supply and Sanitation, 2015 was formulated under the leadership of the LGD, with participation and support of all stakeholders.

Recognizing that no specific institutional and regulatory framework exist for fecal sludge management (FSM), the LGD initiated the process of development of Institutional and Regulatory Framework for Fecal Sludge Management in 2014. The framework will guide the activities related to FSM throughout the country.

**Investment in WSS**

The Government has not only made policy strategies and political commitment for improving the water supply and sanitation situation, but also translated its commitments into increased budgetary allocation for WSS. The average allocation for the sector from FY 2012-13 to FY 2014-15 is presented in the Figure 4.

The Sector Investment Plan (SIP) of Sector Development Plan (SDP), 2011 determined the investment required for the short (FY 2011-15), medium (FY 2016-20) and long (FY 2021-25) term targets. Costs were calculated for the three scenarios and investment required for low service level was estimated at BDT 1,124,179 million (USD 16,060 million), compared to BDT 1,465,520 million (USD 20,936 million) and BDT 1,754,454 million (USD 25,064 million) for medium and high service level respectively.
The distribution of total cost for the short term indicates that most of the investment (79%) would be needed for the urban subsector. The percentage distribution of the sources of funds for the total investment for the short term, which is about BDT 380,500 million, is shown in the chart in Figure 5. The major investment (55%) is from the public sector and from the revenues generated by the WSS utilities (23%). The contribution of private households (for example, for their own tubewells and latrines) is also significant (18%).

**Good Examples**

**Building Markets for Rural Sanitation in Bangladesh**

Sanitation marketing approach was instrumental in expanding access to improved sanitation in rural Bangladesh. The Steps for Sustainable Sanitation Services (4S) project of WSP-WB piloted the approach in 2009 in five villages of the country. Since then the approach has been expanded to large parts of the country through effective collaboration with small-scale sanitation entrepreneurs and microfinance institutions (MFIs). At present both government and NGOs are scaling up the sanitation marketing approach.

The sanitation marketing approach is further extended through implementation of ‘Bangladesh
Rural Water Supply and Sanitation Project (BRWSSP) 2012-17 by the DPHE with financial and technical support of the World Bank. The project aims to promote sustainable sanitation services, particularly for improving the quality of coverage for the existing population using unhygienic latrines. The key components include: (i) community mobilization and hygiene promotion (ii) capacity enhancement of local small-scale sanitation entrepreneurs; (iii) incentives for the poor to construct and use hygienic latrines; and (iv) capacity development of local leaders and Union Parishads to ensure services for poor people.

Budget allocation by LGIs

WASH budget clubs formed by community people are ensuring WASH interventions by LGIs according to their need. Different partner NGOs of WASH Alliance are promoting the approach in their project areas. Members of the club conduct regular meetings generating resolutions with specific WASH needs. Then club representatives negotiate with the local Union Parishad and DPHE to fulfill people's demand. Union Parishad representatives attend public hearing during pre-budget and open budget session. In the process the demand are addressed by the local Union Parishad with provisioning in the annual budget of Union Parishad. In addition to increasing of budget, WASH budget clubs are also facilitating the accountability and transparency of local government. The process is resulting increased trust of people on Union Parishad.

Women WASH Platform (WWP) – Empowering women towards 100% Sustainable Sanitation

Women WASH Platform (WWP) is the apex body of self-motivated and proactive women at the village level who address women specific needs for WASH services in project areas. The main objectives of the platforms are to reduce gender related WASH inequities and empower women through development of leadership skills to implement and manage WASH facilities. This resilient WASH approach of REE-CALL project of Oxfam has enabled 3,441 women of more than 300 WWPs to take a lead role in problem analysis, identification of women WASH needs, and planning, implementation, participation, advocacy in WASH related activities in 207 villages in 36 unions of 12 districts. WWPs together with Ward WatSan committees prepare WASH plans in their villages where they can focus their own needs relating with WASH issues.

Technical innovation turns fecal sludge into business at Satkhira district

Practical Action demonstrated appropriate and affordable technologies for fecal sludge management including collection, transportation, treatment and end use. For safe collection of fecal sludge, simple mud pumps with thin plastic pipes (cost USD 800) was used to reduce desludging time from pits/tanks by two-thirds. To transport sludge, a simple vehicle with a capacity of 1000 liters powered by a local diesel engine (cost USD 2500) was designed, which

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2 REE-CALL stands for ‘Resilient Through Economic Empowerment, Climate Adaptation and Learning’
can easily be serviced and repaired. Finally, a treatment plant including thickening tanks, unplanted solar drying beds with filters, a cesspool and a maturation pond was constructed with a capacity of 2000 liter/day. The compost generated at the treatment plant was tested to assess its nutrient content (NPK) and pathogen free condition. The capacity of the informal emptier groups was developed to improve the efficiency and quality of the services. These opened up multiple windows with business opportunities where the income of pit emptier groups was increased by 60% from faster emptying process, the treatment plant operator earns USD 35 bi-weekly from selling of compost. A market assessment shows that around 50 tons per day demand is prevailing within the catchment area among the farmers. It is expected that both the emptier group and treatment plant operator will be able to stay on their livelihood around the sludge management and compost selling with the planned expansion of services.

Sanitation for Hard to Reach area and people

The GoB has ratified the Convention on the Rights of Persons with Disabilities (CRPD); it has also approved the Rights and Protection of Persons with Disabilities Act, which calls for participation and inclusion of persons with disabilities. A government circular was issued on disability-inclusive water and sanitation, which proposes the adoption of non-excludable ‘targets’ and ‘means’ for prioritizing inclusion of all (including the disabled) to the dignified, safe, sustainable, affordable and reliable access to water and sanitation services.

A situation analysis under a project implemented by Green Hill with support of SDC and Water Aid Bangladesh reveled sanitation practice particularly by persons with disabilities of various remote villages in the Hill Tracts. Disable-friendly latrines have been installed for these people with water facilities inside or close to toilets. These people now do not have to take support of others to fulfill their water and sanitation needs. Their sense of dignity in now well restored.

Adolescent girls becoming WASH entrepreneurs

The GoB-UNICEF Sanitation, Hygiene and Water Supply programme in Bangladesh supported by DFID and implemented by DPHE provided 30 million people with access to improved water, sanitation and hygiene facilities. The programme supported training of 11,800 adolescent girls on water, sanitation and Menstrual Hygiene Management (MHM), providing them with the skills and motivation required to work alongside the Community Health Promoters (CHPs) and volunteer within their communities. Each girl is responsible for promoting improved sanitation and hygiene among 10 households. The knowledge acquired during their training, has also inspired many to establish community shops or “SANIMARTs,”
where they now sell sanitary pads, soaps, detergents, toilet brushes, tooth brushes etc. The SANIMARTs are running entirely by the girls, from the manufacturing of sanitary pads and selling products, all the way through to book keeping and stock management. On average, each SANIMART is run by a group of 11 girls with a turnover of USD 100-200 per month, 10%-20% of which the girls earn as a profit. It’s a vital source of income for the girls who live in some of Bangladesh’s most deprived areas.

Social and Technological Advancements

The tremendous achievement that Bangladesh has made in reducing open defecation to a single digit (from 34% in 1990 to 1% in 2015) in just 25 years could be attributed to the early recognition that attitudes and behaviors are as important as any technology or infrastructure. Bangladesh approached the sanitation problem recognizing that changing social and cultural norms are central to changing the practice. A national sanitation campaign started by the GoB in 2003, targeting the MDG goal on improved sanitation, brought together NGOs, international agencies, and other stakeholders. The factors that led to sanitation success in Bangladesh include an emphasis on stopping open defecation, investment in hygiene promotion and social intermediation and provision of affordable sanitation options to the poor (The Water and Sanitation Program (WSP), 2005).

The most successful sanitation programs in Bangladesh adopted community-inclusive approaches, and reached the targeted audience through various channels that includes village WASH committees, cluster meetings, local government level coordination meetings, student brigades, school WASH committees, religious leaders, local government representatives, etc. A sophisticated approach in tailoring the social mobilization and incentives to local entrepreneurs to meet the demand created by continuous hygiene promotion was another innovative approach that contributed to the country’s current improved sanitation status. Low-cost yet long term sanitation technologies like twin-pit latrines brought down the cost of sanitary latrine to an affordable level for poor and ultra-poor families, and led to large-scale changes in sanitation coverage in the country.

School children suffer from a disproportionate share of WASH-related disease burden. Lack of adequate separate latrines and washing facilities often discourage parents from sending their daughters to school, and lack of adequate facilities for menstrual hygiene can contribute to girls’ missing days at school or dropouts altogether at their puberty. In order to address these issues, Water, Sanitation and Hygiene (WASH) in schools (WIS), programme was initiated in 1992 by the Government of Bangladesh (GoB) and UNICEF with the aim of promoting good hygiene and sanitation behavior of school children through health education and provision of water-and-sanitation facilities.

While it is difficult to measure the social and behavioral changes relating to sanitation issues, Bangladesh has plenty of examples where the previous social norms have changed. Having a household toilet has now become a status symbol signifying dignity. The condition of the household latrine is often a deciding factor in marriage arrangements. A study revealed that disease prevention, elimination of bad smells, and environmental improvement were identified as the principal benefits of being free from open defecation. In addition, village honor, social dignity, peace and prestige were also identified as popular benefits (Hanchett et al., 2011). Because of women’s inclusion in the decision-making process, gender sensitivity is recognized, with women taking decisions on the location and type of latrine. Willingness to pay
at individual and institutional (school) levels for sanitary latrine has increased. Few NGOs are providing sanitation loans to the households in rural areas to improve their existing latrines or to construct new latrines.

Bangladesh has become a role model in the field of sanitation. However, with new challenges like rapid urbanization, slippage from hygienic to unhygienic latrines, water scarcity, improper management of fecal sludge, reaching the ‘last mile’ and achieving 100% sanitation will still need determination, innovation and ongoing hygiene promotion.

**GAPS AND CHALLENGES**

**Coverage**
The excellent progress of Bangladesh in the sanitation sector is challenged by quality of service, and coverage in the Hard to Reach (HtR) areas i.e., hilly regions, islands (chars), swamp (beels and haors), tea gardens, and water-scarce areas. There are still challenges in providing access in the climate vulnerable areas, as well as in rapidly growing urban slums. Moreover, appropriate sanitation system for the floating people and public places is also an issue of concern. In the Hard to Reach areas, only 35.8% families have improved sanitation facilities. Frequent floods, cyclones and other natural disasters cause damage to sanitation facilities, lowering the sanitation coverage in the coastal and vulnerable areas. Challenges are also there regarding sustainability, hygiene issues and total sanitation coverage.

**Technology**
A number of technological challenges need to be overcome for achieving adequate sanitation coverage in urban areas. Except for a small portion of Dhaka city, the entire country is covered by onsite sanitation facilities. The predominant onsite sanitation options in Bangladesh are different forms of pit/pour-flush latrines with direct/offset pit and septic tank system with or without soak pit. While properly designed twin offset pit pour flush toilets provide a long-term sanitation solution, the other forms of pit latrines suffer from problems related to emptying and disposal of pit contents (i.e. fecal sludge management), which is threatening the sustainability of such toilets. In urban areas, septic tanks are poorly designed and maintained; and lack of proper FSM services is aggravating the situation. A number of new and innovative technologies are currently being tested by different organizations that reduce/eliminate the accumulation of fecal sludge in toilet pits.

There are also limited technological options to address sanitation requirements in densely populated slum areas. The high water table and flood-prone areas, marshy lands, water scarce barind area and hill districts are also suffering from lack of appropriate technologies. Some organizations are piloting innovative toilet designs considering hydro-geological constraints, disaster prevalence and effect of climate change.

A good example in technology innovation is the development of an improved “seal” for hygienic pour-flush latrine pans through partnership among the Bill and Melinda Gates Foundation (BMGF), International Development Enterprises (IDE), and World Bank's Water and Sanitation Program (WSP), coordinated by the DPHE. The pan incorporates a counterweighted trap door that swings to the open position upon rapid addition of less than half liter of water. However adequate funding and efforts around research & development, documentation and dissemination remain as challenges for technological advancement.
Health and Hygiene
Sanitation improvement contributed significantly in improving the public health especially the health of children. In more than two decades between 1990 to 2015, Bangladesh has been able to reduce the child mortality rate by more than half (Figure 6), from 133 per 1000 live births in 1990 to 38 per 1000 in 2015 (UN-IGME, 2015). The infant mortality and neonatal mortality have also declined by around half.

In spite of various commendable successes in the health sector, there are several challenges to the health system. One major challenge is to ensure effective coordination between the MoLGRD&C and the MoHFP for implementation of primary health-care services in rural and urban areas. Again there is a critical shortage of trained health providers with appropriate skill-mix in the public sector. Most significantly, there is a persistent low annual allocation to health sector in the government budget, though the government is looking forward to achieve the universal health coverage in the country.

Equity and Rights
Recognizing the UN declaration of sanitation as “human rights”, and SACOSAN declarations of sanitation and safe drinking water “a basic right”, the GoB has taken various initiatives to minimize the gaps in equity and rights in WASH. The LGD has approved pro-poor strategy, which sets minimum WASH requirement for the poor segment people. National cost sharing strategy has been developed addressing the need of sustainable improvement of the service delivery system, and delineating the ways and means of balanced cost recovery of services to ensure equity and rights. Hard to Reach (HtR) area strategy has been developed to ensure equitable WASH services in these difficult areas. To deal with the challenging WASH services in slum areas, the Dhaka WASA is now providing legal water connection to slum areas under the provision UNICEF assisted “Water, Sanitation and Hygiene (WASH) Project provision is being implemented by the DPHE. However, sanitation service in slum area is still lagging behind.

On 23 June 2015, Secretary of the Ministry of Education has issued a circular for all secondary schools and educational institutions to improve the toilet and sanitation conditions in secondary and higher secondary schools, madrasha and technical & vocational institutions. This circular was helpful for ensuring WASH rights of the students.

Although government investment in WASH has been increasing over the last 3 years, some disparities need to be eliminated. While 24% people are living in urban and 76% in rural area,
71% of WASH budget of annull development programme went to urban areas and 29% in rural areas. WASH investment in geographically difficult area like char, haor (wetland), coastal belt and hilly areas is much lower compared to other areas. There is a gap in ensuring appropriate toilet technologies for Differently able people at affordable cost. The government, sector agencies and NGOs are working to get proper solution to minimize the gap.

Following the SACOSAN-V declaration, Bangladesh has made a firm commitment to work progressively to achieve universal WASH, particularly sanitation coverage through accessible, affordable, appropriate, acceptable and environmentally safe sanitation and hygiene services that all people can use and maintain with dignity, safety and comfort. Bangladesh also recognizes sanitation as a matter of justice and equity, with a powerful multiplier effect that unlocks measurable benefits in health, nutrition, education, poverty eradication, economic growth and tourism, while also reduce discrimination and empower communities. Bangladesh is also committed to address diversity in service provision for infants, children, youth, adolescent girls, women and men, differently able persons, chronically ill and elderly, and people affected by poverty and disasters further exacerbated by climate change.

**FUTURE PLAN**

**Sanitation beyond MDG**

Bangladesh along with 192 other UN member states have committed to work towards implementing the 17 SDGs as part of the 2030 Agenda for Sustainable Development within the country and at the regional and global levels. Among the 17 SDGs, eight goals (Poverty, Hunger and Nutrition, Education, Gender Equality, Water and Sanitation, Energy, Combat Climate Change, Global Partnership) are better integrated in the existing national prioritization processes in Bangladesh. The GoB's long-term Perspective Plan (2010-21) attaches a high priority on ensuring access to drinking water, sanitation and good hygiene practice for all. In fulfilling its international commitments to sustainable development, the Government has submitted to the United Nations (UN) its post-2015 development agenda (2016-30) “Safe and sustainable sanitation, hygiene and drinking water used by all”. However, the key challenges for Bangladesh for implementing the water and sanitation related targets are (i) Integration in the national planning process; (ii) financial and non-financial resources; (iii) institutional mechanism for implementation; (iv) data for monitoring; and (v) participation and accountability.

Considering the challenges, the GoB has approved a 15 year Sector Development Plan (SDP) (FY 2011-25) for the water supply and sanitation sector in Bangladesh as a rolling plan with a provision of updating it in every five years. The medium-term planning period (FY 2016-20) of SDP include the priority programs and projects at the initiation of SDGs. At this phase the service levels would be improved to contribute to a better quality of life. Institutional development would continue and Sector Wide Approach at the subsector levels (e.g., urban and rural) would be established. The long-term planning would project the vision of the government on how the sector would develop at the end of the long-term planning period based on possible sector financing, and expected capacity for planning, implementation and O&M. All the medium-term and long-term planning of SDP are in line with SDG targets and would supplement each other.
Sustainability and Overcoming the Barriers

Bangladesh is only a step away to achieve open defecation free status. At this point of time, it is important to view sanitation with a new approach and explore new possibilities. A large number of challenges still need to be addressed to sustain the present sanitation achievement as well to fill the gaps for achieving universal access to sanitation in Bangladesh. The key challenges and needs to be addressed are as follows:

Top Level Political Commitment: In 2003 the Government's directives to earmark 20% of the development budget for sanitation promotion at the Upazila Level was an strong indication of the high level commitment of government for achieving 100% sanitation. Considering achievements already made, recently government has directed that 15% of the development budget to be earmarked for sanitation at the Upazila Level. Continued political commitments will be the driving force to achieve national sanitation target.

Policy Support: Since 1998 the GoB has produced a series of policy documents to guide decision making. Continued policy support and updating is needed to sustain and advance achievements in the sanitation sector.

Appropriate Technology: Extensive research is needed on the appropriate sanitation technology for different areas (particularly the coastal and flood-prone areas, char, haor and hilly areas) so that it enhances functional sustainability of sanitation services in Bangladesh.

Sanitation in HtR Areas and Among HtR People: A study conducted by Water Aid Bangladesh (2012) has identified several Hard-to-Reach areas and communities such as Bede or nomadic community, marginalized ethnic population working in tea gardens, etc. with lower sanitation coverage. A consorted effort should be taken to improve sanitation coverage among these populations. Integrated city-wide initiative is also needed for improving sanitation coverage and services in urban slums and low income communities.

Fecal Sludge Management: With the development of institutional and regulatory framework for fecal sludge management (FSM), Bangladesh is preparing itself to face the next major challenge in sanitation – proper management of fecal sludge generated in onsite sanitation facilities. At the same time, sewerage coverage needs to be increased in large cities; innovative off-site sanitation technologies like small bore sewerage systems with treatment facilities and decentralized sewage treatment plants also need to be introduced where appropriate.

Public Toilets: Provision of public toilets, particularly in bus-stands, railway and river stations as well as in market places is an un-met demand of the people living in cities. In continuation of the good examples of commissioning public toilets at bus-stands in Dhaka city, Government, Development Partners and NGOs should come forward to support public toilets at important public places in urban and rural areas of Bangladesh.

Mainstreaming School Sanitation and Hygiene Promotion: The school sanitation and hygiene promotion needs to be addressed with greater importance and needs to be mainstreamed in government and other agency's sanitation and hygiene promotion programmes in Bangladesh.
Convergence with Other Sectors: Improved sanitation has a close link with child health and nutrition status. The promotion of hygiene and sanitation can be combined with the health education and carried out by the health workers at the community level. Similarly the school sanitation and hygiene education can be mainstreamed in all schools with support from the Ministry of Education.

Recourse Mobilization for Sanitation: In order to expedite the sanitation promotion, a separate budget head can be created for water supply, sanitation and hygiene.

National Monitoring: To understand specific gaps and investment needs, nation-wide periodic monitoring, particularly in the Hard-to-Reach areas with low sanitation coverage needs to be conducted to guide the decision making for achieving Open Defecation Free (ODF) Bangladesh.

Universal Coverage and Improving the Service Level
It is important to ensure universal sanitation access to all including differently able persons, children and elderly people. A government circular has been issued on disability-inclusive water and sanitation program, which proposes inclusion of all including the differently able people to the dignified, for safe, sustainable, affordable and reliable access to water and sanitation services.

The challenge of universal coverage is to ensure use of improved and hygienic latrine by all along with proper management of fecal sludge. Recognizing the quality of service challenges, the GoB has developed multiple guiding documents as described in the policy reform section, with the aim to gradually move people towards improved hygienic latrine. Sanitation market promotion is creating the ability of users to install durable and improved latrine facilities. Private entrepreneurs have received training on business development and different latrine technologies. Micro finance institutions are making soft loans available to the private entrepreneurs. Implementing NGOs are helping entrepreneurs to establish a linkage with the LGIs to support market development. Some LGIs are directing financial support to entrepreneurs to target the hard core poor.

CONCLUSIONS
The sanitation movement in the South Asian countries, triggered by first South Asian Conference on Sanitation (SACOSAN-I) held in Bangladesh in 2003, has made a remarkable change in sanitation practice in Bangladesh. The coverage by improved sanitation increased from 34% in 1990 to 61% in 2015 bringing 35 million people under hygienic sanitation coverage. At the same time open defecation decreased from 34% to 1%, a milestone change in sanitation practice. The coverage by improved sanitation marginally misses the MDG, but if the shared latrines promoted in densely populated urban areas are taken into account, the coverage would exceed the MDG. The improvement in sanitation has directly and indirectly contributed to achievement of some MDGs by Bangladesh. The political commitment of the government to sanitation and multistakeholder approach were the driving forces towards
attainment of success. This collaborative effort by government and non-government and community-based organizations, development partners, Local Government Institutions supported by policies, plans and strategies adopted from time to time, increased financial allocation for sanitation, intensive campaign in sanitation month, technological innovation and marketing approaches led to remarkable success.

Bangladesh has evolved some good practice to share with the SACOSAN countries. These include building market for rural sanitation, empowering women toward 100% sanitation, sanitation for Hard to Reach area people, SANIMART run by adolescent girls, etc. Bangladesh will continue to refining these good practices to bring sustainable solutions to sanitation. At the same time Bangladesh is open to share and implement ideas and good practices adopted in other SACOSAN countries.

Bangladesh has made a change of social and cultural behavior of the people in respect of sanitation, by changing the behavior of open defecation to defecation in fixed latrine. Now is the time to reach the unreached, floating and isolated population and hard-core poor in rural and urban areas, make all sanitation facilities into hygienic, resilient in all environmental conditions and sustainable for use and motivation for hygienic practices. Attention beyond MDG will be concentrated on technological innovation, sustainability in disaster prone areas, fecal sludge management, public toilets, service coverage and improving service level, sanitation facilities in launch, steamer and trains and mainstreaming school sanitation and hygiene promotion. Bangladesh is committed to achieve SDG 6 by ensuring access to safe water and sanitation for all well ahead of its target of 2030.
REFERENCES


Human Development Resource Centre (HDRC) for UNICEF, FANSA, PSU-LGD, WSSCC-B & WaterAid (July 2011). Study on Allocation, Targeting and Effectiveness of Sanitation Subsidy in Bangladesh


