



Bangladesh Strategic Paper to Respond to Water, Sanitation and Hygiene (WASH) issues during & after the COVID-19 Outbreak

Vision: “The Government of Bangladesh aims to limit COVID-19 transmission through safe water, sanitation & hygiene (WASH) services, practices and behaviors, focusing on ensuring continuity and expanded accessibility of WASH services, which have proven to protect human health”.

The Government of Bangladesh aims to maximize the benefits WASH services can have by serving as barriers to human-to-human transmission of the virus, and thereby lowering the immediate impact of the pandemic. The Ministry of Local Government, Rural Development and Cooperatives (MoLGRD&C) seeks to achieve continuity and improve equitable access to Water, Sanitation and Hygiene Services in response to COVID-19. To accomplish this mission, MoLGRD&C will need to swiftly adapt to changing needs and vulnerabilities while adapting processes to safely operate for both service providers and users. In coordination with the Ministries responsible for Health, Information, Education, Religious Affairs and all local, national and international stakeholders, MoLGRD&C will actively support the people in Bangladesh to consistently practice personal hygiene and handwashing in line with WHO recommendations to prevent the COVID-19 virus from spreading.

This strategy will supplement the intervention areas for Risk Communication, and Infection Prevention and Control of the National Preparedness and Response Plan (NPRP) for COVID-19, Bangladesh¹. This WASH strategy will address the immediate, interim and long-term responses by the WASH sector in Bangladesh to the COVID-19 emergency. It is not possible to predict the duration of either of these phases. However, for current planning purposes, it is assumed that the immediate phase will last until the end of June 2020, the interim phase from July to December 2020 and long-term phase from January 2021 to December 2022.

Strategic Objectives:

- **Ensure continuity of water and sanitation services:** Bangladesh is an extremely densely populated country with 168 million people. Around 121 million people take their water from tube wells, around 47 million people have access to water through piped water systems or other sources. During the dry season (March to June), around 10% (over 1.7 million) water points or production pumps become non-functional in Bangladesh. From July to October, recurring floods and cyclones interrupt and destroy water services across the country. With frequent handwashing being a critical measure to prevent COVID-19 transmission, ensuring uninterrupted water supply is essential for the response to the COVID-19 pandemic in Bangladesh.
- **Expand water coverage in areas at high risk and are most vulnerable in Bangladesh:** Social distancing and staying home are the other imperative measures for flattening the COVID-19 curve. In Bangladesh, roughly 30 million people, mostly women and girls, have to travel an approximate 30-minute distance to collect water for their households every day. Predominantly, this is the case in Chittagong Hill Tracts, saline prone coastal areas, Hoar² and Char areas. The expansion of water services to reduce this water collection time is essential for addressing COVID-19. Urban slum areas are another area with extremely heightened risk of transmission, including when accessing water supply services: Often, more than 20 people are getting water from one tap stand at a time, without the possibility for practicing social distancing. Women and girls as the primary collectors of water in over 90% of the households in Bangladesh are disproportionately more exposed.

¹ Government of the People’s Republic of Bangladesh, National Preparedness and Response Plan for COVID-19, Bangladesh, Version 5, March 2020, Directorate General of Health Services Health Service Division Ministry of Health and Family Welfare

² A haor and Char, is a wetland ecosystem in the north eastern part of Bangladesh which physically is a bowl or saucer shaped shallow depression, also known as a backswamp. During monsoon haors receive surface runoff water from rivers and canals to become vast stretches of turbulent water

- *Improve WASH services in critical institutions:* Frequent handwashing with soap and water is till now known as one of the most important and cost-effective prevention measures for COVID-19. Healthcare facilities and quarantine centers require adequate handwashing places with running water and soap. Improving handwashing facilities in healthcare facilities is most critical to ensure safety of both healthcare staff and patients. At the same time, it is very important to ensure professional medical waste management, especially in healthcare facilities and quarantine centers.
- *Improve water quality of water supply systems:* To disinfect the water sources and testing water quality is a prerequisite to provide improved safe water in potentially unstable situations. In this regard, cleaning and disinfection of water points will be carried out by DPHE and municipal field staff on an emergency basis.
- *Testing of wastewater is a potential monitoring tool for the spread of COVID-19:* In densely populated areas testing of wastewater can assist in advanced warning of further outbreaks, as new waves of COVID-19 affect the country.
- *Sector Coordination and Monitoring:* Physical movement from central level to local level is less and less advisable. However, intersectoral coordination, vertical and horizontal communication of executive decisions is essential to ensure uninterrupted WASH services. The needed virtual platforms and digital tools have to be in place and must to be used effectively to ensure dynamic sector coordination and monitoring.

Present Roles and Responsibilities:

The responsibility for the provision of safe water and sanitation within the Government of Bangladesh rests with the MoLGRD&C. In four large cities (Dhaka, Chittagong, Khulna and Rajshahi) Water & Sewerage Authorities (WASAs) are responsible for the respective city's water and sanitation, including solid and liquid waste disposal. In 8 large municipalities the city authorities are responsible for the operation of water treatment facilities and waste management systems. In all other towns and rural areas, the responsibility for water and sanitation rests with the Department of Public Health Engineering (DPHE). All of these government institutions are under the MoLGRD&C.

Bangladesh Government COVID 19 WASH Initiatives:

- A total of 2,000 handwashing basins have been constructed across the country since the outbreak began. The availability of soaps is ensured at every handwashing basin to allow large numbers of people to practice hand hygiene.
- Additional water points were installed in crowded areas like marketplaces, slums and locked down areas as per instruction from local administration. Water supply has also been ensured through installation of water points in hard-to-reach areas like Chars (Riverine Islands) and Haors. Water supply has also been ensured at the quarantine locations planned by the administration through installation of submersible pumps in wells and new water points.
- In urban areas, required repair & maintenance activities have been carried out for all treatment plants, distribution pipe networks and production pumps to ensure uninterrupted water supply. In consultation and collaboration with municipalities, water from every treatment plant is disinfected and adequate chlorine levels ensured in supply water through the provision of bleaching powder.
- All water points are kept functional through provision of required spare parts (free of cost) in rural areas during the ongoing dry season, to avoid downtime due to the fall of the water table.
- The MoLGRD&C has circulated a memo instructing authorities responsible not to disconnect water supply, even if water bills are outstanding.

- Monitoring the status of WASH services and the sector's COVID-response in all 64 districts through weekly WASH Situation Monitoring meeting using a virtual platform has been on-going now for fifth weeks.
- Mobilized 4 million USD to ensure funding for the above activities (Govt. 3.4, UNICEF 0.4 and World Bank 0.2 million USD)
- 230 million USD to reprogrammed from other purposes to address COVID-19 long-term requirements for Urban (30 million USD) and Rural (200 million USD) WASH. Activities focus on expanding pipe water coverage and water options for hard-to-reach areas.

Proposed Critical WASH Interventions for COVID-19 response:

Emergency Response and Service Continuity Phase (April to June 2020): Immediate Response

- Ensure uninterrupted water supply at city corporation, Category A, B and C Municipalities by continuing/supporting utility costs and other O&M costs of existing facilities.
- Ensure supply of chlorine (and other chemicals) needed at the water treatment plants (WTP) and ensure required residual level of chlorine in the treated water.
- Ensure that 1.7 million public water points are functional all-over rural Bangladesh by supplying spare parts and ensuring availability of DPHE mechanics for the necessary repairs of non-functional water points.
- Disinfect public water points in rural areas that are at risk of contamination by mobilizing around 1,000 DPHE front line staff or DPHE mechanics (It is estimated that 20% of the 1.7 million handpumps will need to be periodically disinfected).
- Ensure consistent sanitizing of tubewell handles and spouts before water collection and keeping the surroundings clean through demonstration and dissemination of information by DPHE mechanics, health workers, and other media.
- Provide around 13,000 handwashing facilities with water sources in hospitals, slums, public places and community clinics, isolation centers at district, upazila and union levels; and ensure continued supply of running water and soap at these facilities. Proper drainage of water must be ensured in order to avoid waterlogging (that could entail breeding grounds for Aedes mosquito and other vector-borne diseases)
- Develop and print Information, Education and Communication (IEC) materials for use all over Bangladesh in collaboration with the Ministry of Information, Ministry of Religious Affairs and Ministry of Health and other relevant Ministries.
- Disseminate messages on the proper hand washing technique, social distancing, personal hygiene, water safety, household chlorination and sanitizing of tubewell handle before use all over the country through social media, religious leaders, health workers, community radio, community leaders and other possible means, in collaboration with relevant Ministries.
- Provide necessary safety and security equipment to city corporations, Paurashavas and DPHE staff who are involved with solid waste management, faecal sludge management, and the repair, maintenance and disinfection of water supply infrastructure
- Provide adequate safety gear and training to people involved with solid waste and faecal sludge management in healthcare facilities, particularly those treating COVID-19 affected patients.

- Provide necessary guidelines, instructions and guidance to ensure the quality of work and establish distant monitoring systems to ensure accountability (virtual meeting with 64 districts)
- Establishment of a task force for COVID-19 within the WASH sector and support the COVID-19 cell in DPHE. Among other activities, the task force would establish a mechanism to monitor WASH activities (identified above; the ability of local government institutions in carrying out WASH related activities) on a regular basis, and take immediate corrective/remedial measures, as and when required.

System strengthening phase (July to December 2020): Mid-Term Response

- Assess the water supply systems in city corporations, Category A, B and C Municipalities, and support the needs for uninterrupted safe and chlorinated water supply, e.g. establishing O&M system, chlorination system, water quality monitoring and water safety planning.
- Continue ensuring 1.7 million public water points are functional in rural areas by supplying spare parts and ensuring DPHE mechanics have the necessary resources the repair of non-functional water points and chlorination.
- Re-assess requirement of handwashing facilities in public places throughout Bangladesh and develop a project for establishment of such facilities (with provision for running water and soap).
- Ensure the supplies and build local capacity for bucket / household chlorination and sanitizing tubewells and surroundings, water quality testing for residual chlorine in rural areas. Develop a protocol (including institutional arrangement) for sanitizing tubewell handles and spouts before water collection on a regular basis.
- Provide WASH facilities in the rural Healthcare Facilities (HCF), especially running water, gender-sensitive and inclusive toilets (where not available) and the handwashing stations.
- Establish systematic solid waste management and fecal sludge management as well as medical waste management in healthcare facilities.
- Establish an early warning system by monitoring (testing in designated laboratories) wastewater for COVID-19 in city corporations, category A Paurashavas and other suitable locations with proper health and safety equipment
- Ensure handwashing practice in schools (through supply of running water, soap, and awareness-building) in collaboration with Ministries for Primary Education, Secondary and Higher Education.
- Continue disseminating messages on handwashing techniques, social distancing, personal hygiene, water safety, household chlorination and sanitizing tubewell handle before use to all over the country through social media, religious leaders, health workers, community radio, community leaders, NGOs and other possible means.
- Ensure availability of basic safety accessories (e.g. mask and hand gloves) for personnel (of DPHE, Paurashava, Union Parishads) working in areas where they may be at risk of contracting the virus.
- Continue awareness campaign on avoiding COVID-19 and other communicable diseases with emphasis on personal hygiene and social distancing.
- In addition to DPHE distant monitoring system, establish a 3rd party monitoring system by collecting people's opinions and feedback on service provision through UNICEF U- Report (virtual platforms) and engaging monitoring agencies.

System Expansion phase (January 2021 to December 2022): Long term Response

- As per WHO recommendations, the first level protection against the spread of COVID-19 is washing hand properly with soap or other sanitizer, keeping social distance and staying at home. Currently 35% of urban populations have access to piped water supply, which is extremely insufficient to fight against the spread of COVID-19 and water related diseases. It is, therefore, very important to enhance the access to running water for the urban population. In this regard, DPHE intends to expand the water supply infrastructure to cover 70% population in the municipality including the system O&M. After the mid-term response, this phase will start. This activity will cover 146 municipalities of 59 districts except the WASA areas.
- The rural water supply will be expanded to the rest of the Healthcare Facilities (HCF) in the unions or the growth center. It is expected that around 4000 centers will be covered all over the Bangladesh. Based on the site-specific condition/demand this component will be detailed up during implementation phase.
- Expand 100% water coverage at Chittagong Hill Tracts, Drought prone districts and National Disaster-prone areas
- Constructing handwashing stations in the remaining the unions not reached in the system strengthening phase can be expanded in this phase. Additional 12,000 hand wash station will be provided in unions growth centers and public places.
- Expand and cover 100% of 13,000 low income communities (slum) with legal water supply, sanitation and handwashing facilities
- Establish handwashing stations at primary and secondary schools with a monthly real time monitoring system to encourage and ensure students handwashing practices
- Established systematic medical and solid waste management at 64 districts in Bangladesh
- Established Regulatory Cell to Coordination, Monitoring and Reporting on private sector water, sanitation and hygiene materials supply chain

Financial Requirements: In total, USD 846 million financial support is required to ensure the WASH sector's immediate, intermediate and long-term response to COVID-19 from April 2020 to December 2022. The Bangladesh Government is contributing 296 million USD and the remaining amount of 550 million USD is required from other sources to make the response outlined in this paper possible.

The summary of the expected expenditures is listed below:

Immediate Response Phase (April to June 2020): USD 11 million

- Uninterrupted water supply at City Corporation, Category A, B and C Municipalities: \$ 3.5 million
- Uninterrupted water supply for rural areas: \$ 4 million
- Establish handwashing facilities in slums and public places: \$ 2.5 million
- Risk Mitigation and Public Awareness: \$ 0.5 million
- Safety equipment for Government WASH front line staff: \$ 0.25 million
- Sector Coordination, Monitoring and Reporting: \$ 0.25 million

Intermediate Response Phase (July to Dec 2020): USD 35 million

- Continue uninterrupted water supply with chlorinated water at category A, B, C municipalities in existing pipe water systems: \$ 2.5 million
- Continue uninterrupted water supply in rural areas with Community Capacity Development on Bucket / household chlorination and disinfection: \$ 5 million
- Handwashing facilities with running water at Community Healthcare Facilities: \$ 18 million
- Handwashing campaign to schools, healthcare facilities and communities: \$ 5 million
- System strengthening for medical and solid waste management at category A, B and C municipalities: \$2.5 million
- Early warning systems with testing wastewater for COVID-19 in city corporation: \$ 0.5 million
- Sector Coordination, Monitoring and Reporting: \$ 1.5 million

Long term response phase (January 2021 to December 2022): USD 800 million

- Expansion of urban water supplies including O&M in 146 municipalities: \$ 400 million
- WASH provision in 4000 Healthcare Facilities (HCF): \$ 14 million
- Legal water, sanitation and handwashing facilities at 13,000 slums: \$ 150 million
- Ensure 100% water coverage at hard to reach areas in Bangladesh: \$ 100 million
- Expansion of handwashing station in unions growth centers: \$ 5 million
- Medical, Solid Waste and Faecal sludge Management at 64 districts: \$ 128 million
- Established School Students Handwashing Practice Monitoring System: \$ 1.0 million
- Sector Coordination, Monitoring and Reporting: \$ 2.0 million

Note: This document has been prepared by the Department of Public Health Engineering (DPHE, Bangladesh) in consultation with UNICEF and a group of Expert/Professionals of WASH sector. It is to be treated as confidential and to be used for strategic official purpose only. After finalization of this document, a text on implementation modalities, source of funding and coordination mechanism will be added to this document.