



Response To Covid-19 Outbreak Through Water, Sanitation and Hygiene Interventions

Bangladesh Strategy Paper 2020-2023



Local Government Division

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Minister

Ministry of Local Government, Rural Development and Co-operatives

MESSAGE

Since it's outbreak in early 2020, Bangladesh has been taking timely and proactive steps to minimize adverse impacts of COVID-19 pandemic. On 05 April 2020, Honorable Prime Minister Sheikh Hasina outlined the plans of her Government to overcome the negative impacts of COVID-19. To address the challenges posed by the pandemic, continuity of water and sanitation services and the promotion of good hand-hygiene practice are very important. Ministry of Local Government, Rural Development and Cooperatives has issued instructions to the concerned agencies and taken a lot of effective measures to ensure continuity of water supply and sanitation services for all.

Bangladesh is almost open defecation free and about 98% of the population has access to improved sources of drinking water. Though there has been significant progress, still some challenges remain in terms of safety and sustainability of water supply, sanitation and hygiene (WASH) services. To overcome these challenges, we are committed to achieve universal access to safely managed water supply and sanitation within 2030.

I am pleased to know that Local Government Division (LGD) has formulated 'Response to COVID-19 Outbreak Through Water, Sanitation and Hygiene (WASH) Interventions-Bangladesh Strategy Paper 2020-2023'. This WASH strategy has addressed immediate, mid-term and long-term responses of the WASH sector to protect all from the COVID-19, irrespective of their class, religion and economic status. I convey my profound thanks to all who have provided expert opinion and support in developing the strategy paper. I specially thank UNICEF for their financial and technical support.

This strategy paper will guide relevant ministries of the Government, local government institutions (LGIs), development partners, NGOs, civil society, media and private sector to formulate comprehensive work-plans and implement those to ensure safe water supply and sanitation services to combat COVID-19. I firmly believe that this strategy will not only help us in combating COVID-19, but also play a key role in achieving safely managed water supply and sanitation, which will take us a long way towards achieving SDG-6 and attaining the status of developed country by 2041.

Md. Tazul Islam, MP







Senior Secretary

Local Government Division

Ministry of Local Government, Rural Development and Co-operatives

MESSAGE

With the outbreak of COVID-19 pandemic an international public health emergency has been declared by the World Health Organization (WHO). The entire world is working to address it. Bangladesh has also been affected by this viral disease. To combat COVID-19, the Government has undertaken various steps which includes diagnosis of the suspected cases, institutional quarantine and isolation, local or regional lockdown, closure of all government and private offices, educational institutions, increase public awareness and enforce social distancing etc. Moreover, to address the socio-economic loses; the Government has announced financial stimulus packages. Along with the government initiatives, support of individuals, non-government organizations, private organizations, researchers, doctors, industrialists, and international organizations are required to prevent this highly contagious disease.

The provision of safe water, sanitation and hygiene (WASH) are indispensable to protect human health during all infectious disease outbreaks, including COVID-19. Bangladesh has made remarkable progress in achieving access to water and sanitation services by increasing access to improved sources of drinking water to 98%. Now we need to achieve safely managed water and sanitation and good hygiene practices for all.

WASH and waste management practices at homes, institutions like schools, madrashas and health care facilities together with social distancing are the best preventing tools to stop the spread of COVID-19. Proper hand washing with water and soap kills the virus and it is the most cost effective and equitable preventive measure. To prevent the spread of COVID-19 a strategy paper titled 'Response to COVID-19 outbreak through Water, Sanitation and Hygiene intervention 2020-2023' has been developed by Local Government Division. It aims at ensuring equitable access to improved and safe Water, Sanitation and Hygiene services.

I am grateful to Honorable Minister, Mr. Md. Tazul Islam MP, Ministry of Local Government, Rural Development and Cooperatives for his overall guidance in formulating the strategy. I convey my sincere thanks to the sector stakeholders for their valuable inputs and continuous support in accomplishing this important task. Special thanks to UNICEF to come forward with financial and technical support to formulate the strategy paper.

Our Honorable Prime Minister, Sheikh Hasina, has a vision to ensure universal coverage of safe water and sanitation as well as hand washing with soap before 2030. I sincerely expect that this "Response to COVID-19 outbreak through Water, Sanitation and Hygiene intervention-Bangladesh strategy paper 2020-2023" will facilitate effective programs for achieving the Vision and greatly help to combat COVID-19 pandemic and its adverse impact on our country.

Helal Uddin Ahmed







Additional Secretary Water Supply Wing

Local Government Division

FOREWORD

Local Government Division has developed 'Response to COVID-19 outbreak through Water, Sanitation and Hygiene (WASH) interventions- Bangladesh Strategy Paper 2020-2023' with an objective to prevent COVID-19 as well as strengthen and continue equitable and improved access to water, sanitation and hygiene services for all citizens of Bangladesh. A national working committee, jointly led by UNICEF and the Policy Support Branch (PSB) of Local Government Division accomplished this important task in close collaboration with other relevant Ministries, especially Health, Education and other local, national and international stakeholders.

This strategy identifies WASH sector strategic priority actions for preventing the spread of COVID-19 through adequate water, sanitation, hygiene (WASH) and waste management practices in households, educational institutions, health-care facilities and public places. Together with maintaining social distancing and use of mask, these strategies will be able to act as the first line of defense against the threat posed by COVID-19 pandemic to our health system and the economy at large.

I would like to express my sincere gratitude to Honorable Minister, Mr. Md. Tazul Islam, MP for his guidance in formulating this strategy paper. I also want to express my gratitude to Mr. Helal Uddin Ahmed, Senior Secretary, Local Government Division for his advice and monitoring at all times in developing and publishing this strategy paper.

I am thankful to Mr. Dara Johnston and all other colleagues of WASH, Education and Health section of UNICEF Bangladesh for their sincere efforts in formulating this important strategy paper for Bangladesh.

I express my heartfelt gratitude to the working committee members for their contribution in developing this strategy paper. I also thank the concerned Ministries, Department of Public Health Engineering (DPHE), Water and Sewerage Authorities (WASAs), City Corporations, International Training Network (ITN)-BUET, WaterAid, members of LCG Sub-group for Water Supply and Sanitation and other development partners, sector professionals who have rendered valuable inputs through active participation in preparing this strategy paper.

I hope this strategy paper will help us in countering the challenges posed by COVID-19 pandemic through appropriate WASH interventions and help Bangladesh to a great extend in achieving SDG 6 by 2030.

Muhammad Ibrahim







Joint Secretary Policy Support Branch Local Government Division

ACKNOWLEDGEMENT

The Government of Bangladesh has taken various initiatives to ensure continuity of Water Supply, Sanitation and Hygiene (WASH) services, which act as barriers to human-to-human transmission of the Corona Virus. The Local Government Division (LGD), Ministry of Local Government, Rural Development and Cooperatives (MoLGRD&C) in coordination with the Ministry of Health, Information & Broadcasting, Education, Religious Affairs and other relevant ministries, concerned local, national, international NGOs, sector stakeholders, and other responsible agencies and institutions is providing necessary WASH services and creating awareness among the mass population. These are helping people consistently in practicing personal hygiene and handwashing in line with WHO recommendations and preventing the spread of the COVID-19. To extend and sustain these interventions, Local Government Division has developed 'Response to COVID-19 Outbreak Through Water, Sanitation and Hygiene (WASH) Interventions-Bangladesh Strategy Paper 2020-2023'. The main objectives are to improve hygiene behaviors, practices, appropriate use of WASH services and enhance the WASH sector response to public health emergencies like COVID-19 Pandemic. It will also help strengthen and continue equitable access to improved water, sanitation and hygiene services for all the citizens of Bangladesh.

I extend my heartfelt gratitude to Honorable Minister, Mr. Md. Tazul Islam, MP for his overall guidance in formulating this strategy paper. I also express my gratitude to Mr. Helal Uddin Ahmed, respected Senior Secretary, Local Government Division for his all-out support in developing this strategy paper. I am grateful to Mr. Muhammad Ibrahim, Additional Secretary, Water Supply Wing of LGD for his valuable inputs, suggestions and directives in accomplishing this task.

This endeavor would not have been successful without the strong support of UNICEF Bangladesh. I especially thank Mr. Dara Jonston, Ex-Chief of WASH, Mr. Md. Monirul Alam, WASH Specialist of UNICEF and Mr. S. M. Moniruzzaman, National Consultant, Sector Coordination, PSB for their valuable contribution and hard work. I greatly appreciate the efforts of the working committee members in developing this strategy paper. I also thank the concerned Ministries, Department of Public Health Engineering (DPHE), Water and Sewerage Authorities (WASAs), City Corporations, International Training Network (ITN)-BUET, WaterAid, members of LCG Sub-Group for Water Supply and Sanitation and other development partners, sector professionals and stakeholders who have rendered valuable inputs through active participation in developing this strategy paper.

I sincerely hope that this strategy paper will help Bangladesh Government and all relevant agencies to take appropriate WASH interventions for overcoming the challenges posed by COVID-19 pandemic and achieve relevant targets of SDG by 2030 and Vision 2041 of the present government of Bangladesh.

Md. Emdadul Hog Chowdhury





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List of Acronyms

BPGMEA Bangladesh Plastic Goods Manufacturers & Exporters Association

BNPRP Bangladesh National Preparedness and Response Plan
BUET Bangladesh University of Engineering and Technology

CC City Corporation
COVID Corona Virus Disease

DNCC Dhaka North City Corporation

DGHS Directorate General of Health Services
DME Directorate of Madrasha Education
DPHE Department of Public Health Engineering

DPE Directorate of Primary Education

DP Development Partner
DRR Disaster Risk Reduction
DSCC Dhaka South City Corporation

DSHE Directorate of Secondary and Higher Education

DTE Directorate of Technical Education

DWASA Dhaka WASA

FANSA Freshwater Action Network
FID Financial Institutions Division
FRC Free Residual Chlorine
FSM Faecal Sludge Management

FY Fiscal Year

GLAAS Global Analysis and Assessment of Sanitation and Drinking-Water icddr,b International Centre for Diarrheal Disease Research, Bangladesh

ITN International Training Network
JMP Joint Monitoring programme

HtR Hard to Reach HCF Health Care Facilities

HED Health Engineering Department

HSD Health Services Division

LCG-WSS Local Consultative Group on Water Supply & Sanitation

LGD Local Government Division
LGI Local Government Institution

LGED Local Government Engineering Department

LP Latrine Producer

MAB Municipal Association of Bangladesh

MCMEA Bangladesh Ceramic Manufacturers & Exporters Association

MFI Micro Finance Institute
MoE Ministry of Education
MoF Ministry of Finance

Mol&B Ministry of Information & Broadcasting

MoLGRD&C Ministry of Local Government, Rural Development and Co-operatives

MoPME Ministry of Primary and Mass Education

MoRA Ministry of Religious Affairs
MoH&FW Ministry of Health & Family Welfare
MRM Monitoring and Result Measurement

NFWSS National Forum for Water Supply and Sanitation

NGO Non-Government Organization
O&M Operation & Maintenance
PKSF Palli Karma Sahayak Foundation
PTA Parent's Teacher Associations
PSB Policy Support Branch

PS Pourashavas

SDP Sector Development Plan
SDG Sustainable Development Goal
SMC School Management Committee
SWA Sanitation and Water for All

SSS-CHT Sustainable Social Services-Chattogram Hill Tracts

UNICEF United Nations Children's Fund

UNEP United Nations Environment Programme

WASH Water, Sanitation and Hygiene
WHO World Health Organization
WASAs Water And Sewerage Authorities

WSSCC Water Supply and Sanitation Collaborative Council

WSP Water Safety Plan

WSS Water Supply and Sanitation

RESPONSE TO COVID-19 OUTBREAK THROUGH WATER, SANITATION AND HYGIENE INTERVENTIONS: BANGLADESH STRATEGY PAPER 2020-2023

Goal

Limit COVID-19 transmission in Bangladesh through safe water and sanitation services, hygienepractices, and focusing on ensuring continuity and expanding accessibility of WASH services, which are proven to protect human health.

1. Background

The provision of safe water, sanitation, and hygiene (WASH) and waste management services are indispensable to protect human health during all infectious disease outbreaks, including COVID-19. To prevent COVID-19, vaccination is very important. Beside vaccination, WASH and waste management practices in together with social distancing, are the best measures of preventing the spread of COVID-19. They are the first line of defence against this serious threat to health systems and economies. Hand washing with water and soap kills the virus but requires access to running water in sufficient quantities. It is, however, the most cost-effective and equitable prevention measure.

Bangladesh has made remarkable progress in advancing water and sanitation services by increasing drinking water access to 98% and reducing open defecation practices to almost zero in 2019 (1.5%)². 74.8% of the population had a handwashing station with water and soap on their premises in 2018.³ The major WASH challenge Bangladesh is now facing is to improve practices and quality of WASH services to realize health and well-being outcomes for the poorest fully.

Climatic, geographic, financial, and institutional hurdles achieve the quality, continuity, and sustainability of WASH services needed to reach the SDGs more challenging. Out of 170 million people, around 144 million people collect their drinking water from tube wells, and 24 million people have access to water through piped water systems or other sources. However, this is safely managed water, free of arsenic and E. coli, and within a 30-minute trip for 42.6% of the population.⁴ Recurring extreme weather events also challenge the continuity of services. During the dry season (March to June), around 10% of the over 1.7 million water points or production pumps become non-functional.⁵ From July to October, floods and cyclones interrupt and destroy water services across the country.

There has been a notable progression from open defecation to universal access to safely managed sanitation, currently 36.4% in rural areas. The challenges now are a lack of low-cost and WASH technologies that are sufficiently adapted to the local context; faecal sludge management and safely managed sanitation for densely populated areas such as urban slums; extending services to people living in hard to reach (HtR) areas coupled with coastal and arsenic prone areas; weak capacity of local government institutions; and proper targeting and mobilization of funding on time.

^{1.} MICS, 2019

² ibid

^{3.} ibid

^{5.} DPHE, Survey Investigation and Research

^{6.} MICS, 2019

The picture of WASH in health-care facilities (HCF) also shows the need for increased investments, especially now with COVID-19. According to the JMP Global Baseline Report from 2019⁷ for WASH in HCF, 70% of HCF in Bangladesh have basic water services, 71% have improved and usable latrines, and 54% have hand hygiene materials at the point of care. The report also revealed a significant gap by showing that only 11% have basic waste management services. Improper medical waste management poses a serious threat to public health. Frontline workers in waste management face high risks from inadequate medical waste management and household waste potentially contaminated with the COVID-19 virus.

Improved WASH in Schools has benefits beyond reducing the burden of WASH-related diseases on families and communities during the COVID-19 emergency. Students are healthier and perform better and positively influence hygiene practices at homes, family members, and even the wider community. The acquired life skills and hygiene practices will continue to serve them in the future. About 92% of schools have improved, and available drinking water sources (87% primary, 96% secondary), and 65% of co-education schools have functional, improved, and unlocked latrines for boys and girls. However, only 47.6% of schools have water and soap available inside or nearby the toilets.

The progress on achieving SDG 6.1 and 6.2 is a key strategic objective that has gained even more importance as the country, like other developing countries, is contending with the impact of COVID-19 while struggling to safeguard development gains and momentum achieved towards the 2030 plan.

According to the SDG Financing Strategy 2017 of the General Economic Division, Bangladesh will require an additional US\$ 11.80 billion to achieve SDG 6 (assuming constant 2015-16 prices), out of which US\$ 9.34 billion is required for SDG 6.1 and SDG 6.29. The financial requirement for the fiscal year 2017-2018 for SDG 6.1 & SDG 6.2 was US\$ 1.31 billion. The allocation was US\$ 0.80 billion, and the gap was US\$ 0.51 billion. About half of the WASH sector budget allocation for SDG 6 is from public-sector funds, with the private sector contributing 30% and development assistance making up the balance (20%). The government has also expanded the annual development program budget allocations to the sector from US\$ 563 million in fiscal year (FY) 2017-18 to US\$ 1,438.47 million in the Fiscal Year 2020-2111. While the sector's budget has seen an increase of 13.23% from FY 2019-2020 to FY 2020-2021, less than 5% is dedicated to hygiene issues. As Bangladesh allocates financial resources to support national responses to the COVID-19 pandemic, adequate finance must be dedicated to water, sanitation, and hygiene, in particular, to reach communities and vulnerable groups that have no access to it.

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, thereby lowering the pandemic's immediate impact. The Ministry of Local Government, Rural Development and Cooperatives (MoLGRD&C) seek to achieve continuity and improve equitable access to WASH Services in response to COVID-19.

^{7.} Global Baseline report on WASH in Health Care Facilities Published by JMP can be accessed on https://apps.who.int/iris/bitstream/handle/10665/311620/9789241515504-eng.pdf

^{8.} Bangladesh National Hygiene Follow Up 2018 report

^{9.} SDG Financing Strategy Bangladesh Perspective; General Economics Division, June 2017

^{10.} The GLAAS 2018/2019 country survey, Bangladesh data, DPHE and WHO

^{11.} Policy Brief, WASH Budget Scenario in Proposed National Budget FY 2020-2021, WaterAid, UNICEF and PPRC 2020

To accomplish this mission, MoLGRD&C will need to swiftly adapt to changing needs while adapting processes to operate safely for both service providers and users. In coordination with the Ministries responsible for Health, Information and Broadcasting, Education, Religious Affairs, and all local, national, and international stakeholders, MoLGRD&C will actively support the people of Bangladesh. Responsible institutions for providing necessary WASH services create awareness among the population. This will help people consistently practice personal hygiene and handwashing in line with WHO recommendations to prevent the spread of the COVID-19 virus.

This strategy will supplement the intervention areas for Risk Communication and Infection Prevention and Control of the Bangladesh National Preparedness and Response Plan (BNPRP) for COVID-19¹². 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 any of these phases. However, for current planning purposes, it is assumed that the immediate phase will last until the end of June 2021 the interim phase from July 2021 to June 2022, and the long-term phase from July 2022 to December 2023. But based on the pandemic situation the length of different phases may be adjusted or changed.

2. Objectives

The overall objectives are: To maximize the impact of WASH interventions as a barrier to the COVID-19 pandemic and protect human health and well-being. This will be achieved by ensuring continuity and expanded accessibility of WASH services, by fostering preventive hygiene behaviours, and by optimizing the WASH sector response through the following:

- To improve preventive hygiene behaviours, practices, appropriate use of WASH services, and enhancing the WASH sector response to public health emergencies;
- To promote community resilience against COVID-19 by increasing access to safe water supply, sanitation, and handwashing facilities with a continuous supply of soap and water to the vulnerable communities, educational institutions, health care facilities, and public places;
- To strengthen the required institutional capacity and technical expertise of local government institutions, WASH utilities, and line agencies for effective WASH service delivery in response to the COVID-19 pandemic;
- To continue the Government of Bangladesh's efforts to invest in water, sanitation, and hygiene to tackle the COVID-19 pandemic and ensure that additional financing is mobilized;
- To leverage financial assistance from International Financial Institutions, Development Partners, and the private sector to assist the country in fighting against the spread of COVID-19 and strengthening national systems to cope with the impact of the pandemic;
- To enhance sector coordination and monitoring to support the sector to react to the changing situation, needs and vulnerabilities while operating safely for both service providers and users.

^{12.} Government of the People's Republic of Bangladesh, Bangladesh National Preparedness and Response Plan for COVID-19, Bangladesh, Version 6, 2020, Directorate General of Health Services Health Service Division Ministry of Health and Family Welfare

3. Strategic Priorities: April 2020-December 2023

• Ensure continuity and making water, sanitation, and hygiene available, focusing on eliminating inequalities in taking care of those most vulnerable to COVID-19 and other crises. This includes the elderly, people with disabilities, homeless people, and those living in precarious situations, such as in informal settlements, low-income settlements, urban slums, Char land¹³, haor area¹⁴, tea garden, coastal belt areas, hill tract region, homeless people, as well as those people whose livelihoods are limited or destroyed by measures put in place to stop the spread of the virus. Gender-sensitive interventions are needed to support women, who shoulder the vast majority of unpaid care work in a crisis.

Special attention should be given to provide appropriate WASH solutions for people with disabilities. Specific focus should also be given to hard to reach areas, which require different ways of accessing water and sanitation than other rural areas. With frequent hand washing being a critical measure to prevent COVID-19 transmission, ensuring continuity and sustainability of water supply is essential for responding to the COVID-19 pandemic in Bangladesh. These measures are critical, not just to protect these vulnerable populations from COVID-19 but also to prevent other infectious diseases that can spread when water, sanitation, and hygiene services are disrupted.

• Improve safety and water quality of water supply systems

The safe use of public water points is critical as many households use these at a time. Necessary guidance and behaviour change for disinfecting the tube well handle and spouts/taps frequently before use to minimize the spread of COVID-19 are essential, along with water sources' chlorination. Expansion, inline chlorination of existing and new piped water supply system including the system of testing free residual chlorine (FRC) should be ensured by WASAs, DPHE, City Corporation/Paurashavas, and other authorities. WASAs should introduce a progressive water tariff to provide cross-subsidy for the people living in Low-Income Communities (LIC) in the urban areas. Adequate monitoring and water quality testing are prerequisites to provide improved safe water, especially in unstable situations. In addition to reducing the risk of COVID-19 spreading via water supply infrastructure, safe water also prevents other water-borne diseases like diarrhoea or typhoid, thereby leaving the burden on families and health care systems. In the short term, measures that have been taken are; technical support, the adaptation of guidelines, and pre-positioning of necessary supplies. In the long term, the sector's water testing capacity should be expanded in terms of processes, human resource capacities, and technical skills. Further steps include support to asset management and fostering the concept of customer management. Continued efforts to implement water strategies important to mitigate the impact of fast and slow-onset disasters and other risks on the sector, including the impact of climate change and environmental degradation on water quality and water supply systems. No delay charge (surcharge) is applied with water tariff in COVID-19 lockdown period. Set up a rapid response team to make any critical emergency repairs to WASH infrastructure for continuity of services. Ensure online one stop service for O&M and complain mitigation.

• Ensuring that water and sanitation systems are resilient and sustainable to protect public health and support national health systems

WASH sector service providers, including line departments, LGIs, utility authorities, NGOs, and informal providers, will have difficulty in maintaining or expanding services at the time of reduced financial flows and restricted movement. Resilient and sustainable systems are both a

^{13.} Chara tract oflandsurrounded by the waters of an ocean, sea, lake, or stream; it usually means, any accretion in a river course or estuary

^{14.} Haor bowl-shaped large tectonic depression

short-term and a long-term requirement to save lives. For water, sanitation, and hygiene commodities and services, supply chains, including the movement of goods and production capacity, must be maintained at all costs. Water, sanitation and hygiene workers, conservancy staff, waste workers, and informal waste collectors involved with solid waste, medical waste, and faecal sludge management must also be granted sufficient protection to provide such services without disruption—piloting and scaling-up of disaster and climate resilience technologies/solutions for both the water and sanitation sector.

• Hygiene promotion, awareness, and behaviour change

MoLGRD&C should take the lead in developing and adopting Hand Hygiene for all (HH4A) roadmap to bridge the current momentum for hand hygiene in the COVID-19 response with the longer-term goal of making hand hygiene a pillar in public health interventions in Bangladesh. A Multi-stakeholder national hygiene behaviour change campaign will be developed based on the HH4A road map special focus on densely populated areas to minimize transmission of COVID-19. The national hygiene behavioural change campaign should be led by MoLGRD&C and rolled out in collaboration with development partners and the private sector for wider coverage. The campaign will initially focus on the global hand hygiene initiative led by WHO, UNICEF WaterAid and will expand later to include other relevant behaviour change messages to fight COVID-19 transmission. Communication materials and collaboration with relevant ministries are needed in dissemination. These activities should be linked with SDP thematic group for 'Hygiene, Gender, and Inclusion' under PSB. Revitalize SDP thematic group for 'Hygiene, Gender and Inclusion' under the Policy Support Branch (PSB), LGD, is expected to deliver accurate information transparently. Consistent and rational WASH messaging based on scientific advice accessible to everyone will help the public stand the threat, act accordingly, verify the information, and clarify misinformation. Appropriate management models and guidelines are to be developed for ensuring the sustainability of handwashing facilities and their regular supply of soap, sufficient running water with functioning taps, and adequate drainage installed in public places. In addition to this, our government has taken the initiative to draft a roadmap to bridge the current momentum for hand hygiene in the COVID-19 response with the longer-term goal of making hand hygiene a pillar in public health interventions in Bangladesh.

Critical WASH considerations ahead of reopening the schools

Evidence suggests that children are at a lower risk of contracting COVID-19 than adults. 15 However, they are still susceptible to infection and are potential transmitters of the virus, even when asymptomatic 16. Schools provide the ideal environment for diseases to spread because they bring together many children in close contact. Encouraging handwashing with soap within schools is key to preventing the spread of COVID-19 among children to protect their health and slow transmission in schools and communities. However, within the context of the COVID-19 pandemic, safequards must be in place in schools before they reopen to enable and encourage handwashing with soap at key times among school children as soon as they return. Assessing schools is critically important to determine the support they need for reopening. This allows for targeted support and categorization of schools according to the readiness for reopening. Therefore, an interim handwashing intervention is needed to bridge the gap between schools reopening and developing and implementing more comprehensive intervention strategies. Gradually schools should upgrade and increase the number of handwashing stations near toilets in some schools, but the focus will continue on intensive hygiene education for behaviour change.

^{15.} UCL. Children appear half as likely to catch COVID-19 as adults (study pending publication) 2020 [Available from: https://www.ucl.ac.uk/news/2020/may/children-appear-half-likely-catch-covid-19-adults.

^{16.} Centers for Disease control. Coronavirus Disease 2019 in Children. MMWR Morbidity Mortal Weekly Rep. 2020;69:422-6.

The group handwashing station can be located in the central school courtyard, near toilets, or near the water supply. Wherever the station is located, there should be enough space for at least 10–12 children¹⁷ to wash their hands together, and the facility should provide good drainage. Evidence suggests that nudges can be effective at changing handwashing behaviour among school children¹⁸. Environmental nudges require water and soap. Without these, a nudge-based intervention cannot improve student behaviours¹⁹. Environmental nudges should be considered one of the larger multi-modal strategy components to encourage and sustain handwashing with soap at critical times among school-aged children. Tracing and tracking mechanism will be in place for schools so effectively shut down measures can be put into place if the transmission increases near school areas.

In collaboration with the Ministry of Primary and Mass Education (MoPME), Ministry of Education (MoE) set up available handwashing facilities with soap at the entrance of schools (functional handwashing facilities with soap, sufficient water with taps²⁰, and adequate drainage) that allow physical distance²¹ so that children, teachers, staff and visitors can wash hands before entering the school. Considering the large number of institutions (primary, secondary, madrasah, and technical education institutes) in Bangladesh, engaging the private sector, School Management Committee (SMC), Parents and Teacher Associations (PTAs), and Community groups are needed for leveraging resources and support for setting up functional handwashing facilities with soap and water. Toilets should have functional handwashing facilities with soap and water. Facilities should be accessible to all users. Currently, 47.6% of schools (44.8% primary and 49.4% secondary schools)²² have basic handwashing²³ facilities. As schools prepare to reopen, they need to systematically reinforce hygiene and handwashing with soap from the beginning to avoid transmission among children, teachers, and eventually to their respective families.

• Institutionalizing WASH in health-care facilities

Access to WASH in health-care facilities to minimize the risk of cross-infections and protect frontline workers is one of the most critical aspects of the COVID-19 response. In the short term, gap analysis and improvements of WASH and waste management services at the HCF level (including quarantine centres) are needed, and practices like hand hygiene, environmental cleaning, and disinfecting are strengthened. Longer-term aspects would be investments for operation and maintenance of these systems and systems integration in operational protocols for long-lasting behaviour change and fostering of WASH in institutions as a social norm. Waste management measures should be well-coordinated between local authorities, hospitals, and the private sector, clearly outlining accountabilities. In line with WHO, World Bank, and UNEP guidelines, medical waste, including from COVID-19 patients should be treated adequately to minimize adverse impacts on those engaged in handling it, the environment, and surrounding communities.

^{17. 3} Star Approach WASH in School, DPE, DSHE, UNICEF 2020

^{18.} Biran A, Schmidt W-P, Varadharajan KS, Rajaraman D, Kumar R, Greenland K, et al. Effect of a behaviour-change intervention on hand washing with soap in India (SuperAmma): a cluster-randomised trial. The Lancet Global Health. 2014;2(3): e145-e54.

^{19.} Julie Watson and Robert Dreibelbis, Using Environmental Nudges to Improve Hand washing with Soap among School Children, London School of Hygiene and Tropical Medicine, Covid-19, Hygiene Hub, 2020

^{20. 1} tap for 20 students. Note: there is no national standard for student tap ratio.

^{21.} Minimum 1-meter distance between two student in the class room, WHO 2020

^{22.} National Hygiene Survey, BBS-UNICEF-Water Aid, 2018

^{23.} Soap or powder in or within 30 ft of at least one student toilet (Q3.3) AND tap or bucket water in or within 30 ft of at least one student toilet

Sector Coordination and Monitoring

Physical movement from the central to the local level is less advisable. However, inter sectoral coordination, vertical and horizontal communication of executive decisions is essential to ensure uninterrupted WASH services. The needed virtual platforms and digital tools must be in place and used effectively to ensure dynamic sector coordination and monitoring. Working collaboratively with all stakeholders in a coordinated manner to improve water and sanitation services is critical. Whether public, private, donor, or civil society, each actor has something to offer to protect populations from COVID-19 to optimize the use of the limited available resources. Coordinated action is more effective, especially in immediate measures such as establishing handwashing facilities within health-care facilities, schools, congested urban slums, marketplaces, and at entrance points to public or private commercial buildings and public transport facilities. It will be necessary to strengthen Sector Development Plan (SDP) thematic groups, especially 'Hygiene, gender, and Inclusion thematic group,' LCG-WSS, with the supervision of PSB-LGD and the National Forum for Water Supply and Sanitation (NFWSS)²⁴ for strengthening sector coordination and monitoring, particularly through virtual platforms is an important element to increase resilience, equity and build back better. Among other activities, establishing a mechanism of monitoring, reporting, quality control, transparency, and accountability of WASH activities regularly and take immediate corrective/remedial measures, as and when required, would be useful. A standard guideline for engaging with communities considering COVID-19 will be developed and rolled out for development sector actors and stakeholders implementing activities in the field.

Strengthen institutional capacity building and sustainability of service delivery system

COVID-19 is not the first and will not be the last epidemic that Bangladesh will face. Resilience to future crises can be strengthened by revising policies and strategies, institutional strengthening, and capacity building to ensure this threat is not a missed opportunity to achieve our vision of universal access to water, sanitation, and hygiene. Prioritizing the mobilization of finance to support must have long-term solutions in mind. Access to WASH services must be affordable to all, and this may require additional funding to support service providers and efforts to make WASH services affordable. Funding those who cannot afford it should be linked with the recently approved revised Pro-Poor Strategy for Water and Sanitation Sector 2020. Short and medium-term actions have seen domestic resources covering the utility and maintenance cost of water supply infrastructure, free of cost for communities. Besides, effective monitoring systems for functionality and use are priorities. A robust model for the WASH sector should be developed in the longer term to guarantee access to water for the poorest. Longer-term, sustainable funding sources should be identified, including the legalization of water connections in low-income communities and engaging the private sector. The legal framework should also be adapted in this sense.

Incentivize the private sector to lead sustainable solutions, especially handwashing products and services for low-income consumers

Build capacity of the private sector in strengthening the supply chain, improving consumer demand, and strengthening local government to create an enabling environment where smart nudges drive higher uptake and utilization of sanitation and hygiene products. Incentives need to be available for national, regional, and local (micro) level private sector actors to market sanitation and handwashing related products and services. Community hand washing stations in public spaces (schools/markets) and hygiene promotion can be leveraged from the private sector (soap companies) as a means of their respective product promotion.



- Leverage national and global partnerships such as ITN-BUET, icddr,b, UNICEF, WHO, Development Banks, NGOs, Sanitation and Water for All (SWA), Water Supply and Sanitation Collaborative Council (WSSCC), Freshwater Action Network (FANSA), FSM network, WASH Alliance, Municipal Association of Bangladesh (MAB), Bangladesh Plastic Goods Manufacturers & Exporters Association (BPGMEA), Bangladesh Ceramic Manufacturers & Exporters Association (MCMEA), etc., which are important platforms for national, regional and international cooperation and exchange of experiences.
- Build research, evidence, and knowledge generation to improve the sector's COVID-19 response and overall performance capture lessons learned from the COVID-19 response and studying failures globally and in Bangladesh. The testing of wastewater is a potential monitoring tool for the spread of COVID-19 and can assist in advanced warning of further outbreaks as new waves of COVID-19 affect the country. Other areas requiring increased research and evidence are medical waste management and how it affects community health and water safety by assessing risks and exposure pathways for waste handlers, communities, patients, and hospital personnel from inadequate waste management; addressing COVID-19 in urban slum areas; the effectiveness of different behaviour change approaches; strengthening innovation in service delivery (e.g., hand washing devices solution for people with disabilities); lesson learned about the response to multiple overlapping hazards in addition to COVID-19, such as cyclone Amphan and the 2020 Monsoon floods; as well as the integration of market-based solutions, including emergency responses.

4. Institutional Structure

- MoLGRD&C is the mandated ministry responsible for the water and sanitation sector in Bangladesh to design government programs and projects, leverage funds, and coordinate and monitor development activities. A dedicated Policy Support Branch (PSB) under the Water Supply Wing of the LGD of the MoLGRD&C has been established and it is tasked with implementing the Sector Development Plan (SDP) 2011-2025 in relation to sectoral policy, strategies development, institutional capacity building, and coordination. The LGD delegates operational (services) responsibility to the Department of Public Health Engineering (DPHE), which is responsible for the provision of water and sanitation service delivery in the rural areas and 328 Pourashavas (municipal corporations).
- The Water and Sewerage Authorities (WASAs) in Dhaka, Chattogram, Khulna, and Rajshahi are responsible for developing and maintaining water and sewage systems within their respective jurisdictions.
- The Local Government Engineering Department (LGED) under the LGD is responsible for providing WASH infrastructure services in urban and rural areas, including schools, as per its mandate.
- Twelve City Corporations and 328 Pourashavas are also responsible for water supply, sanitation, and conservancy services within their respective jurisdictions. There are around 4,570 union parishads (Rural Local Government Institutions) in Bangladesh, and they are also responsible for arranging the supply of safe drinking water and promote sanitation for their inhabitants.

- Considering the multidisciplinary nature of WASH sector line agencies such as MoE, MoPME, DPE, DSHE, DTE, DGHS are also responsible for designing and implementation of WASH services and hygiene behaviour change activities in their institutes. Hundreds of NGOs are active in the water and sanitation sector in Bangladesh. Development partners and NGO representatives are active members of national committees and forums that make important sector development and effective service delivery decisions.
- The private sector and local entrepreneurs are other critical actors who bring immense experience in research, product development, and innovation. Their engagement can significantly revolutionize water and sanitation services in this country, especially when combined with the skills and experience we have amassed between the public and development sectors.

5. COVID-19 WASH Initiatives

5.1. Department of Public Health Engineering (DPHE):

- A total of 2,000 handwashing stations have been constructed across the country since the outbreak began. The availability of soap is ensured at each public handwashing basin to allow many people to practice hand hygiene.
- Additional water points were installed in crowded areas like marketplaces, slums, and locked down areas as per instruction from the local administration. Water supply has also been ensured by installing water points in hard-to-reach areas like Chars (Riverine Islands) and Haors. Water supply has also been ensured at the quarantine locations installed by the administration by installing 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 are ensured in supply water through the provision of bleaching powder-need to check.
- All water points are kept functional by providing required spare parts (free of cost) in rural areas during the on-going dry season to avoid downtime due to the fall of the water table.
- LGD has circulated a memo instructing authorities responsible not to disconnect water supply, even if water bills are outstanding during the pandemic.
- Monitoring the status of WASH services and the sector's COVID-19 response in all 64 districts through weekly WASH Situation Monitoring meetings using a virtual platform has been on-going since April 2020.
- Mobilized US\$ 4 million to ensure funding for the above activities (Govt. US\$ 3.4, UNICEF US\$ 1. 66 million and World Bank US\$ 0.2 million).
- US\$ 230 million are being reprogrammed from other purposes to address COVID-19 long-term requirements for Urban (US\$ 30 million) and Rural (US\$ 200 million) WASH. Activities focus on expanding pipe water coverage and water options for hard-to-reach areas.

5.2. Water Supply and Sewerage Authorities (WASAs):

- Dhaka and Chattogram WASAs have installed 70 handwashing stations at public places with running water facilities.
- Khulna WASA has installed wash basin with soap and disinfectant spray and a thermal device in front of its one Head office and three zonal office for washing of hand for customer and its own staff for response of COVID-19.



- WASAs ensure uninterrupted water supply according to LGD instruction not to disconnect household connection in case of the unpaid tariff.
- Dhaka and Rajshahi WASAs have been disinfecting main city roads daily.
- Dhaka, Chattogram, Khulna and Rajshahi WASAs took additional measures by undertaking repair and maintenance activities for all water supply treatment plants, distribution pipe networks, and production pumps. They also added adequate chlorine levels to liquidize chlorine and dosing sodium hypochlorite to ensure a safe water supply.
- All existing public water points are kept functional through close monitoring by DWASA.
- DWASA ensured the resolving of complaints received from its customer using hotline 16162²⁵.
- DWASA took special initiative to keep all pump operator inside the water treatment plants by providing food and accommodation from DWASA, aiming to keep themselves safe from COVID-19 and continuity of services.

5.3. City Corporations:

- DSCC and DNCC provided containers for collecting COVID-19 related waste like used PPE, hand gloves, masks, and other equipment, and they are dumping these items at the landfills with the help of PRISM (a national NGO). Polybags at the household level in lockdown areas have been distributed to collect waste contaminated with COVID-19.
- DSCC and DNCC installed 250 handwashing stations at the market and public places.
- PPE, hand gloves, masks, sanitizer are provided to 2,600 waste collectors of DNCC. DSCC provided
 mask, hand gloves to 5,300 waste collectors and PPE to 100 waste collectors those who usually
 work in risk condition.

6. Financial Requirements for COVID-19 Response

In total, US\$ 890 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 2023. However, depending on the overall situation the length of the different phases and indicative budget can be adjusted. The Bangladesh Government is contributing US\$ 298 million, and the remaining amount of US\$ 592 million is required from other sources to make the response outlined in this paper possible. UN agencies' relevant interventions are also included in the UN Bangladesh COVID-19 socio-economic recovery framework (SERF).

^{25.} The response time depends on type of service required. However, average response time is 72 hours.



The summary of the proposed funding requirement is listed below:

SI. No.	Priority Activities	Lead Agency for Implementation	Facilitating/ Support Agency	Indicative Budget (US\$)
6.1.	Emergency Response Phase: Immediate Response (April 2020 to	June 2021)		\$39.48 million
6.1.1	Continue water supply services at City Corporations (CC) including WASA operating cities, Category A, B & C Paurashavas (PS)	DPHE/WASAs	LGD/ CC/PS/NGOs	\$6.68 million
6.1.2	Ensure pipe network is operational all over the WASA areas by continuous monitoring and repairing	WASAs	LGD/CC	\$3 million
6.1.3	Water trucking (through mobile water tank) with handwashing soap to areas with no piped connection and public places to vulnerable groups and homeless people in WASA, City Corporation, and Municipality operating areas	WASAs/CC/PS/ NGOs	LGD	\$1 million
6.1.4	Develop partnership with local government, private or NGOs to secure access to water for most vulnerable groups of slums. Extend water service lines for the adjacent areas to areas of low service provision as need basis	WASAs/CC/PS/ NGOs	LGD	\$5 million
6.1.5	Road disinfection work with collaboration of city authority	WASAs/CC/PS	LGD	\$2 million
6.1.6	Ensure that 1.7 million public water points are functional all-over rural Bangladesh and Category B and C Municipalities by supplying spare parts and ensuring the availability of DPHE mechanics for the necessary repairs of non-functional water points	DPHE	LGD/UNICEF/ NGOs	\$3 million

	Priority Activities	Lead Agency for Implementation	Facilitating/ Support Agency	Indicative Budget (US\$)
6.1.7	Ensure periodic sanitizing of hand pump handles, spouts and keeping the surroundings clean in rural areas that are at risk of contamination by mobilizing DPHE front line staffs and DPHE mechanics	DPHE	LGD/UNICEF/ NGOs/PS	\$0.25 million
6.1.8	Promote handwashing with soap before water collection from wells and keeping the surroundings clean through demonstration and dissemination of information by DPHE mechanics, municipalities' frontline staff, DGHS health workers, NGO frontline staff, and other media	DPHE/ DGHS /CHT District Councils/NGOs	LGD/ UNICEF/DPs	\$0.25 million
6.1.9	Provide around 15,000 handwashing facilities with water sources in hospitals, urban slums, public places, and community clinics, isolation centres at city corporations, municipalities, district, upazila and union levels; and ensure the 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)	DPHE/WASAs/ LGED/DGHS/ CC/PS/ NGOs	LGD/ UNDP /UNICEF	\$9 million
6.1.10	MoE and MoPME developed necessary recovery plans and guidelines for preparing the reopening of schools to manage the response to COVID-19. School-level assessment on WASH facilities and behaviour for COVID-19 response to be carried out in all primary, secondary, madrasah, and technical institutes and categorization of schools according to the level of readiness for reopening	МОЕ, МоРМЕ	LGD/DPE/DSHE/ DTE/DGHE/ UNICEF/WHO	\$ 1 million
6.1.11	At least one model handwashing facilities, disinfected and clean schools will be established in each district for demonstration and replication purpose	DPE, DSHE, DTE, DPHE/SMC	MOE/MoPME/ LGD/DPHE/ LGED/UNICEF/DPs	\$ 2 million
6.1.12	Develop National Hand Hygiene for All (HH4A) road map to bridge the current momentum for hand hygiene in the COVID-19 response with the longer- term goal of making hand hygiene a pillar in public health interventions in Bangladesh	PSB-LGD/DPHE/ UNICEF/WHO/ WaterAid/ SDP Hygiene Thematic Group	MoLGRD&C/ Mol&B/MoRA/ MoH&FW/MoE/ MoPME/	\$0.1 million

SI. No.	Priority Activities	Lead Agency for Implementation	Facilitating/ Support Agency	Indicative Budget (US\$)
6.1.13	Disseminate messages on the proper handwashing technique, social distancing, personal hygiene, water safety, household chlorination, and sanitizing of hand pump handle before use all over the country through social media, religious leaders, health workers, Sustainable Social Services (SSS)-CHT para workers, NGO frontline staff, community radio, community leaders and other possible means, in collaboration with relevant Ministries	DPHE/WASAs/ CCs/PSs/ DGHS/DPE/ DSHE/MoRA/ MoI&B/NGOs	LGD/UNDP/ WHO/UNICEF/ DPs	\$2 million
6.1.14	Provide necessary safety and security equipment to city corporations, WASAs municipalities and DPHE staff who are involved with solid waste management, faecal sludge management, and the repair, maintenance, and disinfection of water supply infrastructure	DPHE/WASAs/ LGED/CCs/ PSs	LGD/UNDP/ WHO/ UNICEF/DPs	\$3 million
6.1.15	Carry-out research, evidence, and knowledge generation in the sector to improve the sector's COVID-19 response and overall performance(e.g., testing of wastewater is a potential monitoring tool for the spread of COVID-19, medical waste management and how it affects community health and water safety by assessing risks and exposure pathways for waste handlers, communities, patients and hospital personnel from inadequate waste management)	PSB- LGD/DGHS/ DPHE/WASAs/ icddr,b (NGO)/ ITN-BUET/ Universities	LGD/UNICEF/ WHO/DPs	\$0.95 million
6.1.16	Strengthen Sector Development Plan (SDP) thematic groups, especially 'Hygiene, gender and Inclusion thematic group,' LCG-WSS, with the supervision of PSB-LGD and the National Forum for Water Supply and Sanitation (NFWSS)	PSB-LGD	MoLGRD&C/ UNICEF/DPs	\$0.25 million

SI. No.	Priority Activities	Lead Agency for Implementation	Facilitating/ Support Agency	Indicative Budget (US\$)
6.2.	System Strengthening Phase: Mid-Terr (July 2021 to June 2022)	ns Response		\$116.77 Million
6.2.1	Assessment, continuity, and expansion of water supply services including establishing O&M system, monitoring water quality for residual chlorine and water safety planning at City Corporations (CC) including WASA operating cities, Category A, B & C Paurashavas (PS)	DPHE/WASAs/ CC/PS	LGD/NGOs/ UNICEF/WHO/DPs	\$10 million
6.2.2	Continue water trucking to areas with no piped connection and public places to vulnerable groups and homeless people in WASA, City Corporation, and Pourashava operating areas	DPHE/WASAs/ CC/PS	LGD/UNICEF /UNDP/NGOs	\$5 million
6.2.3	Continue road disinfection work with collaboration of city authority.	WASAs/CC/PS	LGD	\$5 million
6.2.4	Ensure the supplies and build local capacity for bucket/household chlorination and sanitizing 1.7 million public hand pumps and surroundings. Develop a protocol (including institutional arrangement) to sanitize hand pump handles and spouts before water collection regularly.	DPHE/CCs/PSs /NGOs	LGD/UNICEF	\$1 million
6.2.5	Re-assess the requirement of handwashing facilities in public places throughout Bangladesh and develop a project to establish such facilities (with provision for running water and soap). Establishment and Management of 25,000 handwashing facilities in public places (with provision for running water and soap)	DPHE/WASAs/ LGED/DGHS/CC /PS/NGOs	LGD/Private sector/UNDP/ UNICEF/DPs	\$20 million
6.2.6	Provide WASH facilities in 2,000 rural and urban Healthcare Facilities (HCF), especially with running water, gendersensitive and inclusive toilets (where not available), and the handwashing stations	DPHE/DGHS/ HED/HSD/ NGOs	LGD/Private sector/UNICEF/ DPs	\$3 million

SI. No.	Priority Activities	Lead Agency for Implementation	Facilitating/ Support Agency	Indicative Budget (US\$)
6.2.7	Establish model solid waste management and faecal sludge management system as well as medical waste management in health-care facilities	DGHS/CCs/PS/ NGOs	LGD/DPHE/ Private sector/UNICEF/ WHO/DPs	\$2 million
6.2.8	Continue school level assessment on WASH facilities and behaviour for COVID-19 response to be carried out in all primary, secondary, madrasah, and technical institutes and categorize schools according to readiness level reopening.	MOE, MoPME	LGD/DPE/DSHE/ DTE/DME/DPHE/ SMC/UNICEF/ WHO/ DPs	\$ 1 million
6.2.9	Disinfect and clean schools to ensure they are safe and hygienic and provide teachers with the orientation to support hygiene practices.	DPE/DSHE/ DTE/DME/ DPHE/ LGED/SMC	MOE/MoPME/ LGD/UNICEF/ WHO/DPs	\$ 5 million
6.2.10	Provide functional handwashing facilities with soap, sufficient water with taps, and adequate drainage in 30,000 schools and the use of environmental nudges and effective waste management	DPE/DSHE/ DTE/ DPHE/ LGED/EED/ SMC/ NGOs	LGD/UNICEF/ DPs	\$ 25 million
6.2.11	Establish a culture of hygiene in school and encourage hygiene behaviour change in the community; emphasize that all teaching and non-teaching staffs are part of a team working to address pandemic preparedness and response and make sure that education can move on and schools are clean and safe places	DPE/DSHE/ SMC/NGOs	LGD/UNICEF/ DPs	\$2 million
6.2.12	Strengthen city pipe network, leak detection monitoring, reporting, and repairing facilities in WASA/CC operating areas	WASAs/CCs	LGD	\$10 million
6.2.13	Continuing the road disinfection activities with the collaboration of city authority by WASA	WASAs/CCs	LGD	\$4 million
6.2.14	Ensure availability of basic safety accessories (e.g., mask and hand gloves) for personnel (of DPHE, WASA, DGHS, Paurashava, Union Parishads) working in areas where they may be at risk of contracting the virus	DPHE/DGHS/ CCs/PSs	LGD/NGOs/ Private sector/DPs	\$5 million

	Priority Activities	Lead Agency for Implementation	Facilitating/ Support Agency	Indicative Budget (US\$)
6.2.15	Build capacity of frontline sanitation and waste workers to minimize risks of COVID-19 infection through a training and awareness campaign	DPHE/DGHS/ CCs/PSs/ NGOs	LGD/DPHE/ Private sector/UNICEF/ WHO/DPs	\$2 million
6.2.16	Demonstrate best practices in water safety planning, including water quality testing and response mechanisms, and promote water purification techniques where necessary to minimize COVID-19 transmission	DPHE/WASAs/ CC/PS/NGOs/	LGD/UNICEF/ WHO/DPs	\$3 million
6.2.17	Endorse and launch Multi-Sectoral National HH4A Campaign	PSB-LGD/ UNICEF/WHO/ WaterAid	MoLGRD&C/ Mol&B/MoRA/ MoH&FW/MoE/ MoPME/ MoCHTA/ Private Sector /NGOs/DPs	\$5 million
6.2.18	Engage with the private sector in the following areas: handwashing stations/facilities/fixtures hand hygiene and cleaning products; identification of technically feasible, commercially viable, and user-desirable handwashing stations/components; design modifications increasing the humancentered design of handwashing stations; development of promotional materials on handwashing stations; and the strengthening of supply chains to ensure access of local WASH entrepreneurs to hand washing station products	DPHE/PSB- LGD/UNICEF/ NGOs	MoLGRD&C/ Private Sector/ DPs	\$2 million
6.2.19	Establishing a system of monitoring of functionality and use to ensure sustainable operation and maintenance of critical WASH infrastructure to minimize COVID-19 transmission; besides, establish consumer/usercentric monitoring system using UNICEF U-Report ²⁶ by collecting people's opinions and feedback on service provision through virtual platforms and engaging monitoring agencies	PSB-LGD / DPHE/ WASAs	UNICEF/DPs	\$1 million

²⁶United Nations Children's Fund, 'About U-Report', 2018: U-Report is a social messaging tool, in the form of a packaged product built on the Rapid Pro open source software that enables and empowers people to speak out and provide their perspective on a wide range of important issues in their communities. U-Report is a free, non-exclusive tool for community participation, but aims to empower young people to engage in citizen-led development and create positive change.

SI. No.	Priority Activities	Lead Agency for Implementation	Facilitating/ Support Agency	Indicative Budget (US\$)
6.2.20	Institutional capacity building to WASH-related line departments, originations, and LGIs for the sustainability of WASH services for intermediate COVID-19 response strengthening and future preparedness capacity for public health emergencies/pandemics	LGD/UNICEF/ UNDP/WHO/ DGHS	DPHE/WASAs/ CC/PS/NGOs/ DPs	\$2 million
6.2.21	Carry-out research, evidence, and knowledge generation in the sector to improve the sector's COVID-19 response and overall performance (e.g., continue research on testing of wastewater is a potential monitoring tool for the spread of COVID-19, medical waste management and how it affects community health and water safety by assessing risks and exposure pathways for waste handlers, communities, patients and hospital personnel from inadequate waste management, lesson learned about the response to multiple overlapping hazards in addition to COVID-19, such as cyclone Amphan and the 2020 Monsoon floods)	PSB- LGD/DGHS/ DPHE/WASAs/ icddr,b (NGO)/ ITN-BUET/ Universities	MoLGRD&C/ UNICEF/WHO/ DPs	\$3.27 million
6.2.22	Revitalize Sector Development Plan (SDP) thematic groups, LCG-WSS, WSS-forum for strengthening sector coordination and monitoring, particularly through virtual platforms as an important element to increase resilience, equity and build back better	PSB-LGD	MoLGRD&C/ UNICEF/DPs	\$0.5 million



SI. No.	Priority Activities	Lead Agency for Implementation	Facilitating/ Support Agency	Indicative Budget (US\$)
6.3.	System Expansion Phase: Long term Ro (July 2022 to December 2023)	esponse		\$733.75 million
6.3.1	Expansion, inline chlorinated water of existing and new piped water supply system including the system of testing free residual chlorine (FRC), WSP, O&M at 12 City Corporations including WASA operated cities, 328 municipalities	CC/PS/WASAs/ LGED and DPHE	LGD/NGOs/ UNICEF/WHO/DPs	\$300 million
6.3.2	Continuing the public road disinfection work with collaboration of city authority	WASAs/CC/PS	LGD	\$5 million
6.3.3	Expand the city pipe network and legal water connection, sanitation and handwashing facilities to 13,000 Low-Income Communities (LIC) in WASA operated city corporations and other major city corporations and Municipalities	WASAs/LGED and CC/PS	LGD/NGOs/ UNICEF/UNDP	\$100 million
6.3.4	Expand water coverage in hard to reach rural areas, e.g., Chattogram Hill Tracks, coastal belts areas, haor, drought-prone districts and natural disaster-prone areas	DPHE	LGD/NGOs	\$100 million
6.3.5	Roll-out multi-sectoral national HH4A campaign for sustaining and strengthening hygiene behaviours to minimize transmission of COVID-19; develop a standard, generic messaging on hand hygiene for government, private sector, and non-government institutions. Efforts in institutions, especially health-care facilities and quarantine and isolation locations, continue to be of the highest priority. Furthermore, in addition to broadbased campaigns, targeted campaigns addressing specific groups (e.g., those caring for others, men, linguistic minorities, young children, or last-mile communities) should be increased. In the longer-term, more emphasis needs to be given to nudging and sustaining these acquired behaviours	DPHE/WASAs/ DGHS/LGED/ DPE/DSHE/ DTE/CHT/Dist Councils/Private Sector/Mol&B NGOs/UNICEF/ WHO/ WaterAid	MoLGRD&C/ MoRA/ MoH&FW/MoE/ MoPME/ MoCHTA/ DPs	\$10 million

SI. No.	Priority Activities	Lead Agency for Implementation	Facilitating/ Support Agency	Indicative Budget (US\$)
6.3.6	Expansion and sustainable management of 20,000 handwashing stations in union growth centres, public, and marketplaces, constructing hand washing stations in the remaining unions not reached in the system, strengthening phase can be expanded in this phase.	DPHE/LGED/ WASAs/CCs/ PS/NGOs	LGD/Private sector/UNDP/ UNICEF	\$10 million
6.3.7	Set up sustainable handwashing facilities (group washing facilities with soap and running water taps that allow physical distance) and the use of environmental nudges and effective waste management at 100,000 schools; make sure that toilets have functional handwashing facilities with soap and water. Facilities should be accessible to all users; need to ensure that schools comply with the larger intervention and make soap and water available and that larger policy changes prioritize expanding water, sanitation, and hygiene programs in schools	DPE/DSHE/ DTE/ DME / DPHE / LGED/EED/ SMC/NGOs	MoE/MoPME/ MoLGRD&C/ UNICEF/DPs	\$80 million
6.3.8	Establish a culture of hygiene in school and encourage hygiene behaviour change in the community; emphasize that all teaching and non-teaching staff are part of a team working to address pandemic preparedness and response and ensure that education can move on; schools are clean and safe places with a monthly real-time monitoring system that encourages and ensure students' handwashing practices; recognize individual WASH champions in school and community	DPE/DSHE/ DTE/ DME/ DPHE / LGED/EED/ SMC/NGOs	MoE/MoPME/ MoLGRD&C/ UNICEF/DPs	\$5 million
6.3.9	Improved and sustainable WASH services including waste management in 5,000 HCFs covered all over Bangladesh based on the site-specific condition/demand; this component will be fleshed out during the implementation phase	DPHE/DGHS/ HED/NGOs	LGD/Private sector/UNICEF/ WHO/DPs	\$5 million
6.3.10	Invest for operation and maintenance of WASH facilities and systematic integration in operational protocols for long-lasting behaviour change and fostering of WASH in institutions as a social norm for institutionalizing WASH in health-care facilities	DGHS/HED	LGD/Private sector/UNICEF/ WHO/DPs	\$2 million

SI. No.	Priority Activities	Lead Agency for Implementation	Facilitating/ Support Agency	Indicative Budget (US\$)
6.3.11	Establish systematic solid waste management and faecal sludge management as well as medical waste management in health-care facilities	DGHS/CCs/PSs	LGD/DPHE/ NGOs/ Private sector/UNICEF/ WHO/DPs	\$ 10 million
6.3.12	Solid Waste and Faecal Sludge Management at 64 districts; waste management measures should be well-coordinated between urban Local Government Institutes (LGIs), hospitals, and the private sector, clearly outlining accountabilities; in line with WHO, World Bank, and UNEP guidelines, medical waste, including from COVID-19 patients should be treated adequately to minimize adverse impacts on those engaged in handling it, the environment, and the communities affected	CCs/PSs/DPHE/ LGED	LGD/NGOs/DPs	\$50 million
6.3.13	Build capacity of frontline sanitation and waste workers to minimize risks of COVID-19 infection through a training and awareness campaign	CCs/PSs/ WASAs	LGD/DPHE/ DGHS/ NGOs/Private sector/UNICEF/ WHO/DPs	\$5 million
6.3.14	Engage with private sector actors to sponsor hand washing stations/ facilities, outlining costs, available advertisement space, and supporting the project offers in the form of cost-sharing and sustained demand creation for handwashing products through various channels; promote private sector including lead companies' manufacturing hand washing stations/ facilities or fixtures for different consumer segments, soap, liquid hand wash or detergents, and toilet cleaning agents	PSB- LGD/Private Sector/ UNICEF/ NGOs	DPHE/ WASAs/LGED / CCs/ PSs/ DPs	\$2 million
6.3.15	Stimulus package including access to finance for the private sector for hand washing promotion: Support to informal local entrepreneurs such as latrine producers by facilitating access to working capital and stimulating sales through subsidy and MFI loan programs for the promotion of sanitation, hand washing facilities/fixtures, hand washing & toilet cleaning agents targeting poor and different consumer segments	PKSF ²⁷ /MFI	FID of MoF /MoLGRD&C/ iDE (NGO) / UNICEF	\$20 million

²⁷An apex development organization established by the Ministry of Finance, the Government of Bangladesh (GoB) in May 1990.

SI. No.	Priority Activities	Lead Agency for Implementation	Facilitating/ Support Agency	Indicative Budget (US\$)
6.3.16	Institutional capacity building to WASH-related line departments, originations, and LGIs for the sustainability of WASH services for intermediate COVID-19 response strengthening and future preparedness	LGD/DPHE/ WASAs/CC/PS/	UNICEF/WHO/ UNDP/NGOs/DPs	\$4 million
6.3.17	Continue monitoring functionality and use to ensure sustainable operation and maintenance of critical WASH infrastructure to minimize COVID-19 transmission. Besides, establish consumer/user-centric monitoring system using UNICEF U-Report¹ by collecting people's opinions and feedback on service provision through (virtual platforms) and engaging monitoring agencies	PSB-LGD/DPHE/ WASAs	UNICEF/DPs	\$2 million
6.3.18	Carry-out research, evidence, and knowledge generation in the sector to improve the sector's COVID-19 response and overall performance (e.g., action research on the effectiveness of different behaviour change approaches, handwashing devices, solution for people with disabilities, better integration of market-based solutions including emergency response, addressing COVID-19 in urban slum areas, etc.)	PSB- LGD/DGHS/ DPHE/WASAs/ icddr,b/ITN- BUET/ Universities	MoLGRD&C/ /UNICEF/WHO/ DPs	\$21.25 million
6.3.19	Strengthen Sector Development Plan (SDP) thematic groups, LCG-WSS, and WSS-forum for strengthening Sector Coordination and Monitoring, particularly through virtual platforms, are important elements to increase resilience and equity.	PSB-LGD	UNICEF/ DPs/NGOs	\$2.5 million

