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# Disaster Management Policy Framework in Bangladesh: The Role of Mobile Phones during the COVID-19 Pandemic

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**ABSTRACT:** COVID-19, officially recognized as an epidemic by the WHO on March 11, 2020, has spread rapidly across Europe, the US, South America, India, Pakistan, Thailand, and Myanmar. Bangladesh has implemented preventive measures, such as the Disaster Management Act of 2012 and the Infectious Disease Prevention, Control, and Elimination Act of 2018, to prevent the virus and control mobilizations and gatherings. This constrained social and economic activities as well. The COVID-19 epidemic has necessitated the reliance on connectivity as an essential means for the sustained operation of commercial and social activities. The government has recognized the significance of mobile technology in supporting social and economic activities.

Mobile connectivity in Bangladesh is crucial for economic and social activities during the pandemic, enabling businesses and educational institutions to sustain operations, facilitate social interaction, support work-related tasks, and provide access to services that improve quality of life. The government has categorized mobile technology and operators as a crucial public service. Mobile phones and mobile internet utilization is expected to continue enabling connectivity, providing access to novel opportunities, and contributing to economic growth and progress towards the United Nations Sustainable Development Goals and Digital Bangladesh. The capacity of individuals to access and effectively utilize mobile phone and internet services is essential for fully utilizing the social and economic benefits of mobile connectivity.

**KEYWORDS:** Telecommunications, Mobile Phone**,** Disaster Management, COVID-19, Emergency Response

## INTRODUCTION

The World Health Organization (WHO) officially declared COVID-19 an epidemic on March 11, 2020. Since then, this infectious disease has rapidly spread over several regions, including Europe, the United States, South America, India, Pakistan, Thailand, and Myanmar. Bangladesh has implemented precautionary measures to prevent the virus. The country's moderately inadequate healthcare facilities contribute to the lower recovery rate. The Disaster Management Act of 2012 and the Infectious Disease Prevention, Control, and Elimination Act of 2018 were enforced to address mobilizations and gatherings.

Mobile connectivity has been essential for continuing economic and social activities during the COVID-19 pandemic in Bangladesh. It has allowed businesses and educational institutions to remain active, allowing individuals to socialize, work, and access life-enhancing services. The government has designated mobile technology as an essential public service and designated mobile workers as critical personnel. During the pandemic, the government supports using mobile technology to safeguard citizens and save lives. The operators in Bangladesh play a crucial role in utilizing mobile technology to mitigate the effects of COVID-19 on the population. More effort is required to ensure that digital technologies continue to address the challenges posed by COVID-19.

## OBJECTIVES

The main objective of the study is to explore and identify the following:

- To explore the role of mobile phones during the COVID-19 pandemic in Bangladesh
- To appraise the existing framework on Disaster Management in Bangladesh during the Covid-19 epidemic.

## RESEARCH METHODOLOGY

The study uses a qualitative research methodology to analyze the COVID-19 pandemic's impact on countries. It uses secondary data sources and published articles to analyze global conditions and steps taken by affected countries. A meta-analysis and mixed method approach is employed, analyzing authors' findings and understandings. Data from the GSMA intelligence, the United Nations, WHO, Corona Meters, ministries info and national daily newspapers provide valuable insights.

## Disaster Management Policy Framework in Bangladesh: The Role of Mobile Phones during the COVID-19 Pandemic

### Institutional Framework of Disaster Management in Bangladesh:

The calamity management perception of the government of the People's Republic of Bangladesh is to decrease the peril and hazard to the underprivileged and the local level people, exclusively the poor and the backward. It proposes to create an actual, efficient, and long enduring Emergency Response Management System under which large-scale catastrophes, calamities, and hazards can be managed and handled, as well as the preparedness and humanitarian matters while handling the after and before effects and results of social, environmental natural as well as manmade calamities (Khan & Rahman, 2007; Sarker et al.Journals.grassrootsinstitute.net) Bangladesh initiated a disaster management preparedness framework afterward the hazardous effect of the 1991 cyclone. Now, the concerned authorities of Bangladesh adopted and formulated National Disaster Management Act, 2012 (MoDMR, 2012), Standing Order on Disaster 1997 (revised up to 2010) by Department of Disaster Relief and Management (DM & RD), National Disaster Management Policy, 2015 (MoDMR, 2015) and National Disaster Management Plan 2010-2015 (MoDMR, 2010) as vital credentials and policy paper to manage and handle disaster and calamity management proceedings (Khan & Rahman, 2007; Izumi & Shaw, 2015).

The country has adopted, formulated, and mitigated disaster management instruments at the nationwide, local as well as sub-national stages. Bangladesh National Disaster Management Plan formulated by a strategic paper. It prescribes an inclusive guideline and policy framework for pertinent areas and disaster management committees/organized bodies in all spheres to formulate and adopt the detailed plans, programs, and policy guidelines shaped beneath diversified areas of such disaster management framework (Hossain, 2011; Hassan, 2015; Rezoane, 2016). The parliament has passed Disaster Management Act 2012.

In addition, the government has also prepared a National Plan for Disaster Management (2010–2015, 2016–2020; MoDMR, 2016), which has played importance in civic associations from preparation to the application of disaster management actions at local, sub-national, and national levels. The Disaster Management Policy of 2015 expresses the participation of local, sub-national, and national people and different stakeholders. The Disaster Management Policy, 2015, was prepared below Article 19 of the Disaster Management Act, 2012. The aim of the Disaster Management Policy-2015 is to the attainment of good governance as well as good enough governance of disaster management by confirming the responsibility, accountability, and transparency of all shareholders, participants, community followers, bilateral and multilateral development partners, local and sub-national-level concerned body, people and disaster management committees and so on.

### Policy Framework of COVID-19 pandemic management system in Bangladesh:

The MoHFW, DGHS, and IEDCR, under the administrative control of MoHFW, perform as a pioneer of the covid-19 pandemic administration (Alam, 2020). The MoHFW is a ministry as well as a policy-making frame, and the DGHS and IEDCR are its policy implementation body. The DGHS formulated the National Preparedness and Response Plan for the COVID-19 pandemic in the country (DGHS, 2020). In addition, the DGHS shaped and framed 64 health coordination committees in 64 districts, with the civil surgeons, the principal health officer of a district, as the chairperson of the committee (Alam, 2020).

As per the Disaster Management Act of 2012, National Disaster Management Council has formed at the national level where the Prime Minister of the Country will be the chairperson of the council, and a good number of concerned ministers are in charge of the ministries, a number of administrative officials who are in charge of the ministry/division/directorate/concerned administrative body, will be the member of the council. Generally, the council administers the policy framework, strategic policy issues and priorities on disaster management. In addition to, different emergency response activities and committee has prepared the act during disaster management (Alam, 2020).

MoHFW shaped and formulated four national-level committees as per the rules of the National Preparedness and Response Plan (NPRP) (Alam, 2020). The National Committee for Prevention and Control of COVID-19 (NCPCC) is first at the top. The minister in charge of the MoHFW performs as the chairperson of the committee, and the secretary of health services is performed as the member-secretary of the NCPCC. Secretaries who are the administrative head of a ministry/division were prescribed as members of the committee indicating cabinet secretary and principal secretary of the office of the Prime Minister (Alam, 2020). The committee's first meeting was sat on 21st March 2020, and later, no meetings were prescribed at the time of April and May were reported as critical months. Secondly, performing the Director General of the DGHS as the chairperson, a National Coordination Committee (NCC) was designed and shaped. All members of the committee were involved from health-related government organizations (Alam, 2020).

Thirdly, performing the director general of DGHS as the chairperson, National Technical Committee (NTC) was also designed and shaped. Officers, staff and other designated officials of the DGHS and IEDCR, as well as representatives of other health and family-related government organizations, were included as members. There was no chamber for independent expertise on health and disaster management, indicating members of NCC and NTC are comprised of administrative-controlled offices of the DGHS. Fourthly, facing rising criticism, the MoHFW designed the National Technical Advisory Committee.

The chairperson of the Bangladesh Medical and Dental Council was prescribed as chairman as well as the members comprised renowned Bangladeshi medical doctors of the committee. In addition, the director who is working at the IEDCR was performed as a member-secretary of the indicated advisory committee (Alam, 2020). Administratively, Bangladesh is physically divided and allocated into eight divisions for an effective service delivery system, 64 districts, 492 upazilas and 4,571 unions Parishad. In

addition, there are 12 city corporations and more than 330 municipalities across the country. Pre-primary healthcare facilities are prescribed from the community clinics at the local level all over the country. Primary as well as secondary healthcare amenities are prescribed, provided and organized at the Upazila government hospitals, popularly known as Upazila health complexes and district hospitals, respectively (Alam, 2020). Tertiary health and medical care facilities are only at the divisional level, sub-national and national level big clinics and large hospitals even though private prescriptions are attached to medical colleges and medical diagnosis centres. A couple of committees at the local and sub-national levels were designed by the MoHFW with the cooperation of the Cabinet Division (Alam, 2020).

Firstly, performing divisional commissioner as the chairperson of the Divisional Committee on Prevention and Control of covid-19 at the divisional level was formulated and shaped in which where the divisional director of the health services performs as member-secretary of the committee (Alam, 2020). Secondly, the deputy commissioner plays a vital role as the chairperson at the district level, and the civil surgeon remains the member secretary (Alam, 2020). Thirdly, UNO was made at the Upazila level as the chairperson, and the UHFWO stayed the member-secretary. It is solely indicated that no committees were designed and shaped at city corporations in which typically the issue is outside of the authority of the deputy commissioner in charge of a district administratively (Alam, 2020).

However, a scrutiny of the delegation of authority of the committees discloses and allocates that the key tasks and duties comprise raising awareness of covid-19, emphasizing the status of social isolation and imposing isolation, as well as applying verdicts of the National Committee (Alam, 2020). Moreover, the MoHFW allocated and imposed the responsibilities of one of the ministry's officials who are in the rank of deputy secretary to additional secretary or above to monitor, inspect and screen all healthcare centers, community clinics, hospitals, and diagnostic centers in Dhaka city as well as across the whole country (Alam, 2020). Furthermore, the Ministry of Food and Disaster Management (MoDMR) allotted and delegated authority ministry's officials to every administrative district in the country to supervise and monitor humanitarian assistance through MoHFW actions (Alam, 2020). Also, the PMO allotted one senior secretary/secretary who is the administrative head of a ministry/division of the government to the individual districts to administer the performance relating to the prevention and control of covid-19 and humanitarian assistance (Alam, 2020).

**Context of Covid-19 Pandemic: Bangladesh Perspective**

In the covid-19 context, more than one crore and 2 million people across the World have been confirmed and diseased with the Nobel coronavirus since Wuhan city, Republic of China, primarily recognized the presence of a “pneumonia of unknown cause” in Wuhan province, Republic of China, on December 31, 2019, as well as at the middle of July 2020. Furthermore, the worldwide death ratio has touched closely to 562,000 individuals since the initially testified death in the Wuhan province of the Republic of China on January 11, 2020 (WHO, 2020). World Health Organization (WHO), the reputed health organization working worldwide, considered covid-19 as an epidemic on March 11, 2020 (WHO, 2020). Across the World, countries take various steps to manage the pandemic; for example, “political response, healthcare management, and financial policy response,” South Korea, Taiwan, and Singapore are the top three countries managing Covid-19 management (Bremmer, 2020).

The East Asian covid-19 prevention success stories focus on the importance of early interference, the use of technology, healthcare capacity, centralized coordination and citizen compliance and command and control structure in pandemic organizing and managing (Shaw et al., 2020). The task of calamity communication and public participation (Shaw et al., 2020; Dostal, 2020) for effective and efficient covid-19 epidemic administration is sound arrangement. Bangladesh experienced the first known revelation to the covid-19 while a Biman Bangladesh Airlines aircraft expatriate 312 Bangladeshi inhabitants from Wuhan province, Republic of China, on February 1, 2020. However, sufficient steps and measures have been taken that extreme inadequacy of testing may send off numerous cases unnoticed by the country.

In reply to the presence of the virus, Bangladesh certainly lessened international flights, compulsory thermal scanner checking in the airport, and shut down schools, colleges, and universities; however, offices continued their regular schedules until March 26, 2020(Anwar et al., 2020). The initial recognized covid-19 individuals were reported on March 8, 2020. To avoid covid-19, Bangladeshis who are nonresidents staying in top developed countries like North America and Europe, and top oil-resourced countries like Qatar, Saudi Arabia, etc., as the Middle East and the Republic of China reported an exodus to Bangladesh. About 630,000 Bangladeshis, between January 21 to March 24 reached Bangladesh from covid-19 victimized nationals (Maswood & Mahmud, 2020).

**Role of Mobile Phones during COVID-19 Pandemic**

Mobile operators in Bangladesh have responded to the challenges of the pandemic by implementing measures to ensure that mobile technology is utilized effectively in eight critical areas to prevent the spread of the disease.

**Emergency Telecommunications for Disaster Management**

According to global rankings, Bangladesh has the 10th position out of 187 countries in terms of the highest disaster risk on a global scale. Occurrences like as the COVID-19 pandemic and Cyclone "Amphan" have underscored the pressing necessity of

incorporating resilience into the nation's infrastructure, intending to mitigate the consequences of natural calamities and enhance Bangladesh's capacity to recuperate from adversities swiftly.

Formulating an emergency response action plan is a critical measure outlined in the COVID-19 Crisis Response. The primary objective of an emergency response plan is to guarantee the continuity of communication across the many stages of disaster management, including mitigation, preparedness, response, and recovery.

Operators possess the capability to access and utilize crucial infrastructure and data, which can be integrated into national systems for responding to disasters. Through collaboration with appropriate national frameworks and organizations, operators have the potential to significantly enhance the capacity of national entities to effectively anticipate and address natural calamities. A Technical Committee has been established by mobile operators and the Bangladesh Telecommunication Regulatory Commission (BTRC) with the purpose of developing a Standard Operating Procedure (SOP). This SOP will serve as a comprehensive guideline for telecommunication services in their response to disaster situations.

**Mobile operators provide connectivity, social and economic stability, and digital services:**

Bangladesh is experiencing the COVID-19 crisis, highlighting the importance of digital technology in maintaining connectivity and social and economic stability. To combat the crisis, mobile operators are utilizing mobile technology. Accelerated private-public sector collaboration is required to ensure networks are equipped to manage the exponential growth in digital traffic, to future-proof Bangladesh's digital capabilities and infrastructure, and to provide vulnerable populations with access to digital services.

The COVID-19 lockdown measures in March 2020 significantly impacted the mobile industry, leading to increased online activity and data consumption. Operators implemented temporary discounted measures to improve data affordability, but active subscriber numbers dropped due to credit restrictions and financial constraints. Operators heavily subsidized data consumption, making the recovery vulnerable to a potential second wave over the winter period. The unpredictable course of the pandemic has hindered the industry's ability to respond and drive forward Digital Bangladesh's vision.

## DISSEMINATING CRUCIAL INFORMATION

Providing constituents with the most recent information is paramount in rapidly evolving situations. As a result, operators are collaborating with the governments to deliver timely information directly to mobile devices via SMS and social media applications. These instruments aid in the identification of symptoms and the implementation of preventative measures, as well as the dissemination of official pandemic guidance.

**Deploying resources to preserve critical connectivity:**

During the pandemic, mobile technology and internet access have become crucial for maintaining connectivity, especially for Bangladeshis working and studying from home. The demand for mobile internet has increased, and operators are investing in additional capacity to maintain network robustness and resilience. Despite economic uncertainty, operators have managed to maintain services and utilize pre-existing capacity efficiently, sometimes expanding capacity to accommodate increased demand. Despite initial challenges, operators have successfully maintained services and utilized pre-existing capacity to ensure continued connectivity during the pandemic.

**Enhance the affordability of mobile services by short-term measures:**

The provision of affordable digital content and services plays a crucial role in facilitating connectivity during the COVID-19 pandemic. In light of the crisis, mobile operators have recognized the significance of data and have undertaken efforts to enhance the affordability and accessibility of mobile internet services. These endeavors involve implementing temporary measures such as tariff cuts and subsidizing internet access costs. Presented below is a comprehensive enumeration of the aforementioned provisional measures.

**Collaborating with the government to use mobile big data to control disease transmission.**

The utilization of customer data plays a pivotal role in facilitating public health measures throughout the various stages of the COVID-19 epidemic. Mobile carriers collaborate with critical stakeholders, such as a2i and the National Telecommunications Monitoring Centre, to develop a COVID-19 Collective Intelligence System. The system integrates geo-location data derived from mobile devices with self-reported data and test results in order to generate dashboards that facilitate informed decision-making. As an illustration, the system effectively detects "hot zones" characterized by a significant concentration of illnesses, facilitating the implementation of widespread testing measures.

**Providing 'Telehealth' services through mobile phone**

The COVID-19 pandemic has resulted in significant health consequences, disproportionately affecting the most susceptible segments of the population. The global health crisis has brought to light the significance of technology in the provision of healthcare solutions. Mobile operators are utilizing mobile and frontier technologies to promote healthcare that is both more cost-effective and of higher quality. As a result, certain services within this sector have experienced notable increases in utilization.

**Providing Support for Online and E-Learning**

Operators are actively addressing the educational difficulties posed by the COVID-19 pandemic by offering solutions that facilitate the transition to online and distance learning. These solutions primarily focus on enhancing access to digital educational resources. By collaborating with various stakeholders, educational operators can effectively utilize mobile technology to facilitate and improve continuous online learning experiences for students in their homes. Mobile operators are currently offering lower charges to facilitate remote work and granting access to supplementary content and services for children at home.

## CONCLUSION

The COVID-19 epidemic has necessitated the reliance on connectivity as an essential means for the sustained operation of commercial and social activities. The government has recognized the significance of mobile technology in supporting social and economic activities. Consequently, it has categorized mobile technology, as a vital public service. In addition to the impact of COVID-19, the utilization of mobile technology resolve persist in facilitating connectivity among individuals, providing access to novel chances and services that enhance the quality of life. Furthermore, it drives and contributes to economic expansion and propels advancements in achieving the UN Sustainable Development Goals (SDGs) as well as the objectives outlined in the Digital Bangladesh initiative. Additionally, it has a significant role in facilitating the recuperation process from the repercussions of the COVID-19 pandemic. Hence, it is imperative that the citizens of Bangladesh have the capability to obtain and utilize mobile phones and internet services, thereby fully capitalizing on the social and economic advantages facilitated by mobile internet connectivity. The telecommunications sector in Bangladesh plays a crucial role in facilitating the advancement and expansion of mobile internet services, particularly in distant regions during COVID-19. Mobile operators are actively collaborating with citizens and the government to deliver a diverse array of essential services and guarantee uninterrupted access to mobile services throughout the COVID-19 pandemic.

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