Project Information Document (PID)

Concept Stage | Date Prepared/Updated: 24-Jun-2020 | Report No: PIDC29107

Public Disclosure Authorized

BASIC INFORMATION

A. Basic Project Data

Country	Project ID	Parent Project ID (if any)	Project Name
Bangladesh	P173312		Resilient Infrastructure Building Project (P173312)
Region	**Estimated Appraisal Date**	**Estimated Board Date**	**Practice Area (Lead)**
SOUTH ASIA	May 13, 2021	Jul 29, 2021	Urban, Resilience and Land
Financing Instrument	**Borrower(s)**	**Implementing Agency**	
Investment Project Financing	Ministry of Finance	Local Government Engineering Department	

Proposed Development Objective(s)

To enhance the resilience of target vulnerable villages to floods, and improve the disaster preparedness and response capacity of government agencies

PROJECT FINANCING DATA (US$, Millions)

SUMMARY

Total Project Cost	400.00
Total Financing	400.00
of which IBRD/IDA	400.00
Financing Gap	0.00

DETAILS

World Bank Group Financing

International Development Association (IDA)	400.00
IDA Credit	400.00

Environmental and Social Risk Classification	Concept Review Decision
Substantial	Track II-The review did authorize the preparation to continue

B. Introduction and Context

Country Context

1. **Bangladesh has made rapid social and economic progress in recent decades, reaching lower-middle income status by 2015.** Gross domestic product (GDP) growth averaged close to 6 percent annually since 2000 and, according to official estimates, accelerated to over 8 percent in FY19. Strong labor market gains contributed to a sharp decline in poverty, with the national poverty rate falling from 48.9 to 24.3 percent between 2000 and 2016, while extreme poverty declined from 34.3 to 12.9 percent[1]. However, the pace of poverty reduction has slowed in recent years even with accelerated growth. Similarly, the progress on shared prosperity slowed between 2010 and 2016 after a decade of improvements, with annual consumption growth of the bottom 40 percent trailing that of the overall population (1.2 versus 1.6 percent). Bangladesh entered the COVID-19 crisis with a relatively strong macroeconomic position. Garment exports and remittances narrowed the external deficit in recent years and international reserves were adequate at the end of April 2020 at US$32.9 billion, equivalent to six months of imports. While tax collections are amongst the lowest in the world, under-execution of the budget has contained the fiscal deficit, which has been below 5 percent of GDP since FY01. As a result, public debt is low and stood at 33.7 percent of GDP at the end of FY19. A key economic vulnerability is in the banking sector where the non-performing loan (NPL) ratio is high at 9.3 percent of outstanding loans in December 2019, and is underestimated considering significant under-provisioning, regulatory forbearance, and gaps in the legal framework.

2. **Growth declined sharply as the COVID-19 pandemic brought about major disruptions to economic activity.** In the first half of FY20 (July to December), growth decelerated as slower global trade and deteriorating external competitiveness lowered exports and tighter access to finance constrained private investment growth. With declining ready-made garment (RMG) orders, exports declined by 5.8 percent (y-o-y) during this period. A sharp contraction in capital goods imports (3.4 percent, y-o-y) suggests private investment also declined. Growth during the first half of the year was primarily supported by remittance-fueled private consumption. The initial phase of the pandemic in early 2020 disrupted the supply of intermediate goods from China, reducing manufacturing output. As the pandemic intensified abroad, export orders from Europe and the United States declined precipitously and an estimated US$3.2 billion in RMG orders were cancelled or suspended[2]. The government implemented a national shutdown from March 26 to May 30 to control an accelerating domestic outbreak of the virus. Control measures resulted in a sudden stop of many components of the service and industrial sectors. Remittance inflows declined by 23.6 percent year-over-year in April 2020 and exports declined by 82.9 percent in the same period. In FY19, inflation remained modest at an average of 5.5 percent, primarily driven by a rise in non-food prices. Demand for food surged with precautionary purchases ahead of the national lockdown but has eased more recently as government food distribution programs were implemented. Overall inflation reached 5.4 percent y-o-y by the end of May 2020.

3. **COVID-19 has darkened the economic outlook through domestic economic disruptions, declining exports and remittances, and rising stress in the financial sector.** FY20 GDP growth is projected in a range between 1.6 percent and a downside scenario of 1.0 percent. The downside forecast is based on a situation in which (i) lockdown measures are extended and mobility remains significantly constrained and (ii) the global outlook deteriorates further. In FY21, growth is projected between 1.0 and -3.0 percent. In the downside scenario, a second round of

[1] Household Income and Expenditure Survey, 2000/01 through 2016/17.
[2] Bangladesh Garment Manufacturers and Exporters Association (BGMEA), as of May 22, 2020.

infections and a prolonged global recession would result in the realization of some contingent liabilities, especially from the financial sector. The extended national shutdown is likely to depress economic activity across all sectors in the last quarter of FY20, and varying levels of control measures are likely to continue in FY21. Private consumption, the main engine of growth, is expected to slow and declining remittance inflows reduce household income. The unprecedented uncertainties related to COVID-19 are likely to further dampen private investment. The decline in exports is expected to persist, as developed market recessions depress demand for ready-made garments, Bangladesh's primary export. A shortage of intermediate inputs is expected to lower industrial production, while labor shortages could adversely impact all sectors. Transportation disruptions are expected to dampen agricultural growth, particularly production of perishable products like dairy, poultry, and vegetables. The recovery is expected to be very gradual, with ongoing economic disruptions and increasing fragilities in the banking system. In the medium term, a gradual recovery in growth is expected, with some increase in export demand and higher public spending.

4. **Bangladesh is extremely vulnerable to the effects of climate change.** The Global Climate Risk Index ranks Bangladesh as the world's seventh most affected country over the period 1999-2018[3]. Rising temperatures leading to more intense and unpredictable rainfalls during the monsoon season and a higher probability of catastrophic cyclones are expected to result in increased tidal inundation. Flooding in Bangladesh is a near-constant phenomenon, recurring with varying magnitude and intensity, affecting a greater population than any other natural hazard. Floods and riverbank erosion affect about one million people annually in Bangladesh[4]. Once every three to five years, up to two-thirds of Bangladesh is inundated by floods[5]. Runoff[6] and peak 5-day rainfall intensity (a surrogate for an extreme storm event) are projected to increase[7]. Such disasters have both direct effects (such as loss of lives and property) and indirect effects (such as loss of employment and income, reduced access to products and services, and opportunity cost of resources that need to be diverted to relief and rehabilitation) as well as disrupting effects on rural economies, accelerating rapid urbanization and migration. Recent studies estimate that by 2050 Bangladesh could have 13.3 million internal climate migrants[8]. Additional rural-urban migration would have significant consequences for air and water pollution and unsustainable consumption of natural resources, while putting additional pressure on urban labor markets. Addressing climate risks is increasingly becoming urgent to ensure sustainable economic development of the country.

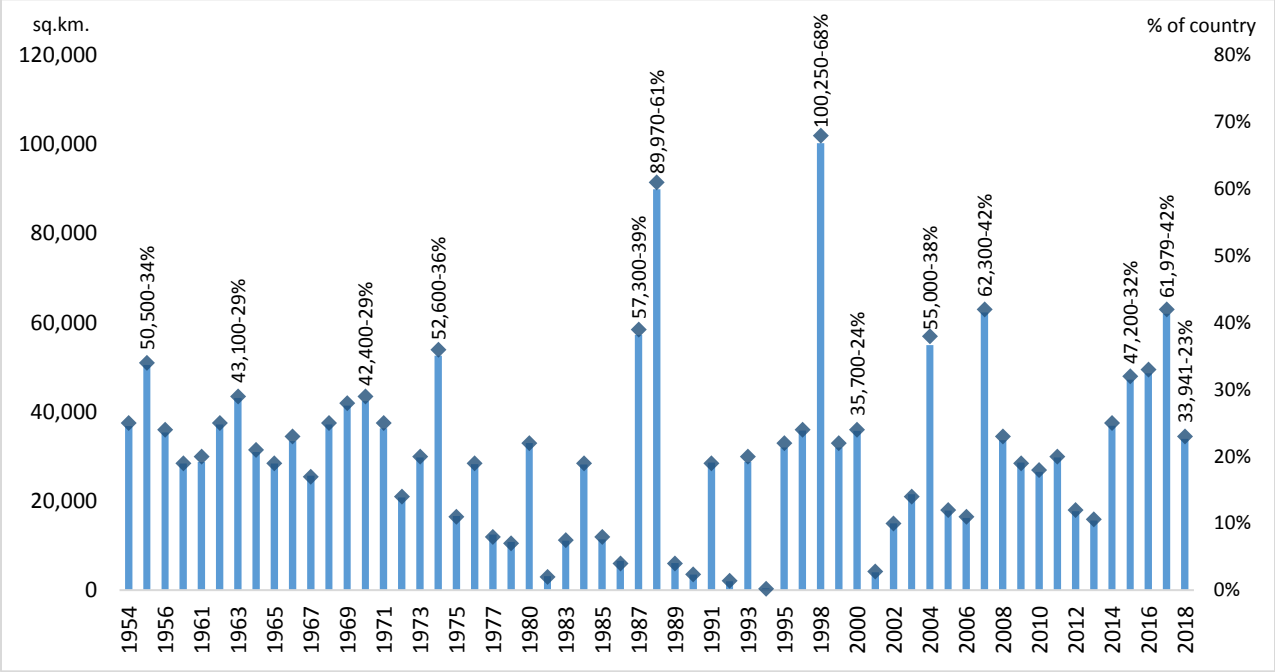
Sectoral and Institutional Context

5. **Frequent and recurrent flooding:** Bangladesh is a deltaic country consisting of floodplains created by over 300 rivers and channels, including three major rivers: the Ganges, the Brahmaputra, and the Meghna. 25 percent of the country is less than 1m above sea level and 50 percent is less than 6m above sea level. Bangladesh is located at the foot of the highest mountain range in the world, the Himalayas, which is also the world's highest precipitation zone. During monsoon seasons, the winds from the sea towards the land raises the water levels in the Bay of Bengal, inhibiting drainage from these rivers to the sea. As rainfall is also high during monsoon seasons[9], river flows, local rain, and raised levels for the Bay of Bengal result in flooding of vast areas in Bangladesh. Between

[3] Germanwatch (2020) *Global Climate Risk Index 2020.*
[4] The World Bank: Climate Change Knowledge Portal
[5] The World Bank: Climate Risk and Adaptation Country Profile (Bangladesh)
[6] A measure of water availability (precipitation minus evapotranspiration)
[7] The World Bank: Climate Change Knowledge Portal
[8] World Bank (2018) *Groundswell: Preparing for Internal Climate Migration.*
[9] Average Rainfall in rainy season (May to September) is about 2250 mm. Rainfall intensities in monsoon period in 1988, 1998 and 2007 were 2284, 2112, 2306 mm respectively.

1954 and 2013, about 69 small to large floods have been recorded[10]. Floods are especially destructive when peak flows in these rivers occur at the same time, as in 1987, 1988, 1998, 2004, 2007 and 2017. In particular, the floods in 1987 inundated about 40 percent of the land area (57,300 km^2), affected about 30 million people, and caused about 1,800 deaths. In 1988, the floods inundated about 60 percent of the land area (89,970 km^2), affected 45 million people, and caused about 2,330 deaths. Damages from the 1987 and 1988 floods have been estimated to be about US$500 million and US$1.2 billion respectively. The 1998 flood inundated 68 percent (100,250 km^2) of the country and affecting 30 million people, leaving around 25 million homeless with 1,050 reported deaths.[11] In 2004 the floods affected 39 out of 64 districts and 6.3 million people.[12] In 2007 flood, 48 districts were inundated with around 85,000 houses were completely damaged and affecting almost 16 million people.[13]

Flood Affected Areas in Bangladesh by Year[14]



6. **Recent flooding in Bangladesh in 2017 and 2019:** Between March and May 2017, flash floods occurred across 6 districts in the northeastern (*Haor*) areas, and in late June, a severe monsoon started that extended the floods to 19 districts in the northwestern parts in August and September 2017. By October 2017, floods had killed 145 people, affected about 8 million people in 32 districts, with over 103,800 houses destroyed, 630,000 damaged, and 1.5 million people in need of immediate food assistance. Over 650,000 hectares of standing crops across 32

[10] Source: Management Approach to Disaster Scenario in Bangladesh: An Overview

[11] After the flood: Official Damage Statistics of Bangladesh Flood 1998, https://reliefweb.int/report/bangladesh/after-flood-official-damage-statistics-bangladesh-flood-1998

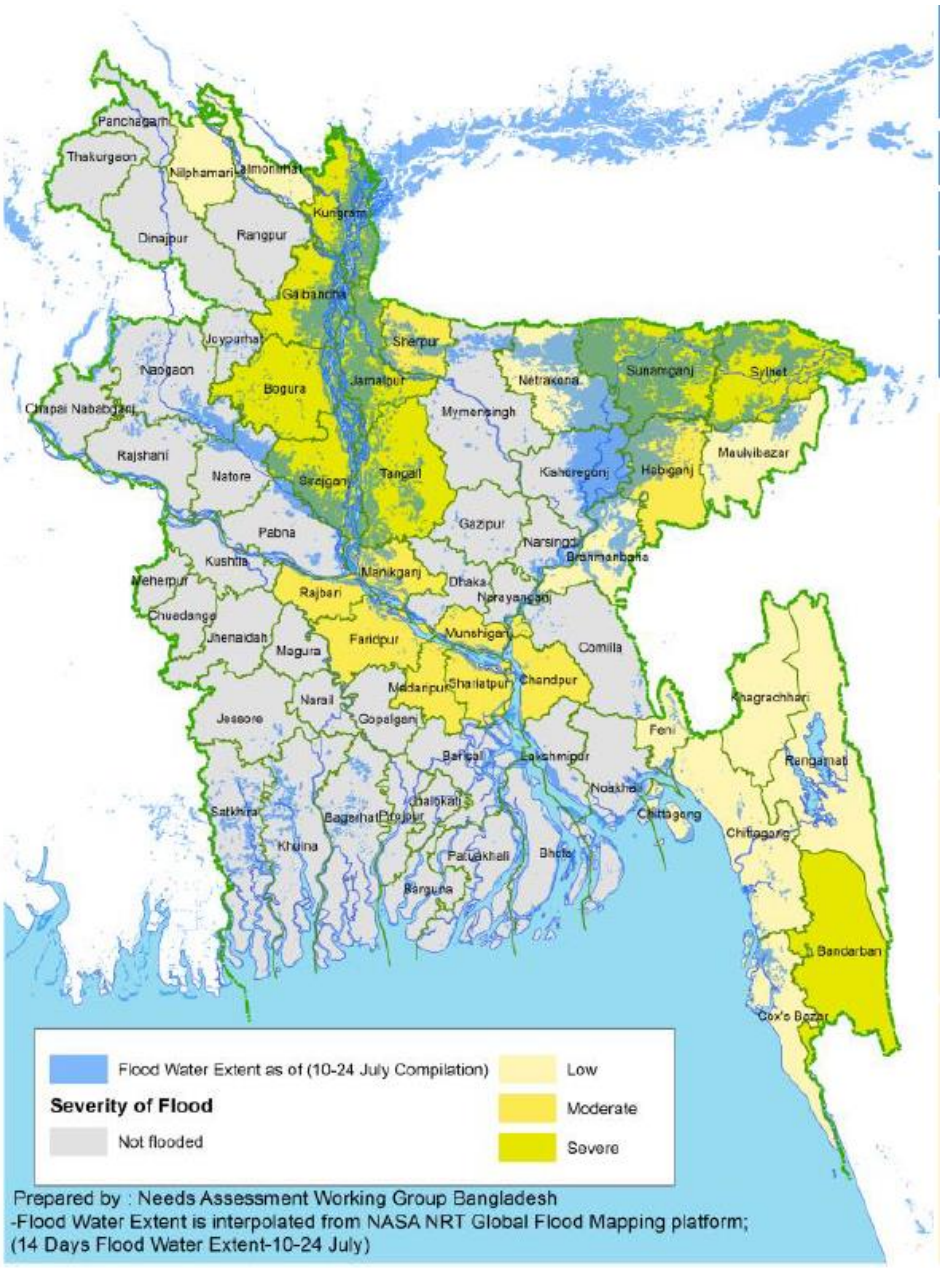
[12] Bangladesh: Floods Situation Report - 19 Jul 2004, https://reliefweb.int/report/bangladesh/bangladesh-floods-situation-report-19-jul-2004#:~:text=As%20such%2C%20government%20estimates%20on,with%20over%206.3%20million%20affected.&text=82%2C025%20acres%20of%20agricultural%20land,and%2050%2C000%20homes%20completely%20damaged.

[13] Consolidated Damage and loss Assessment, Lessons Learnt from the Flood 2007 and Future Action Plan by MODMR (2007) (https://modmr.portal.gov.bd/sites/default/files/files/modmr.portal.gov.bd/publications/8e731b3d_479f_4ea1_b1c3_f3af17d263b4/Executive%20Summary-Flood%20Report.pdf

[14] Annual Flood Report 2018, Flood Forecasting and Warning Centre (FFWC), Bangladesh Water Development Board (BWDB)

districts were also damaged[15]. In 2019, heavy monsoon rains started in July and water from upstream triggered flooding in low lying areas of 28 districts in the north and northeastern regions, resulting in 7.6 million affected people, 600,000 affected households, and 163,000 hectares of damaged croplands. Of these districts, Kurigram, Jamalpur, Gaibandha, Sirajganj, Sunamganj, Bogra, and Bandarban were particularly hit hard.

Flood Inundation Map of Bangladesh, 2019



[15] Monsoon Floods: Bangladesh: Humanitarian Coordination Task Team (HCTT) – Situation Report No. 5

7. **Floods disproportionally affect the poor.** The ways in which disasters affect poor people are more than what traditional estimates suggest and are increasingly better understood. Poor people suffer only a small share of the economic losses caused by disasters, but they suffer disproportionately. The same loss affects poor and marginalized people far more because their livelihoods depend on fewer assets, their consumption is closer to subsistence levels, they cannot rely on savings to smooth the impacts, their health and education are at greater risk, and they may need more time to recover and reconstruct. A recent World Bank study based on estimates of socioeconomic resilience in 117 countries, which includes in its analysis how poverty and lack of capacity to cope with disasters magnify losses in well-being, finds that the effects of floods, wind storms, earthquakes, and tsunamis on well-being are equivalent to a US$520 billion drop in consumption—60 percent more than the widely reported asset losses[16]. In Bangladesh, one study that surveyed 700 floodplain residents living without protection along the Meghna River showed poor people lost much more in relative terms: 42 percent of household income compared to 17 percent for nonpoor people[17].

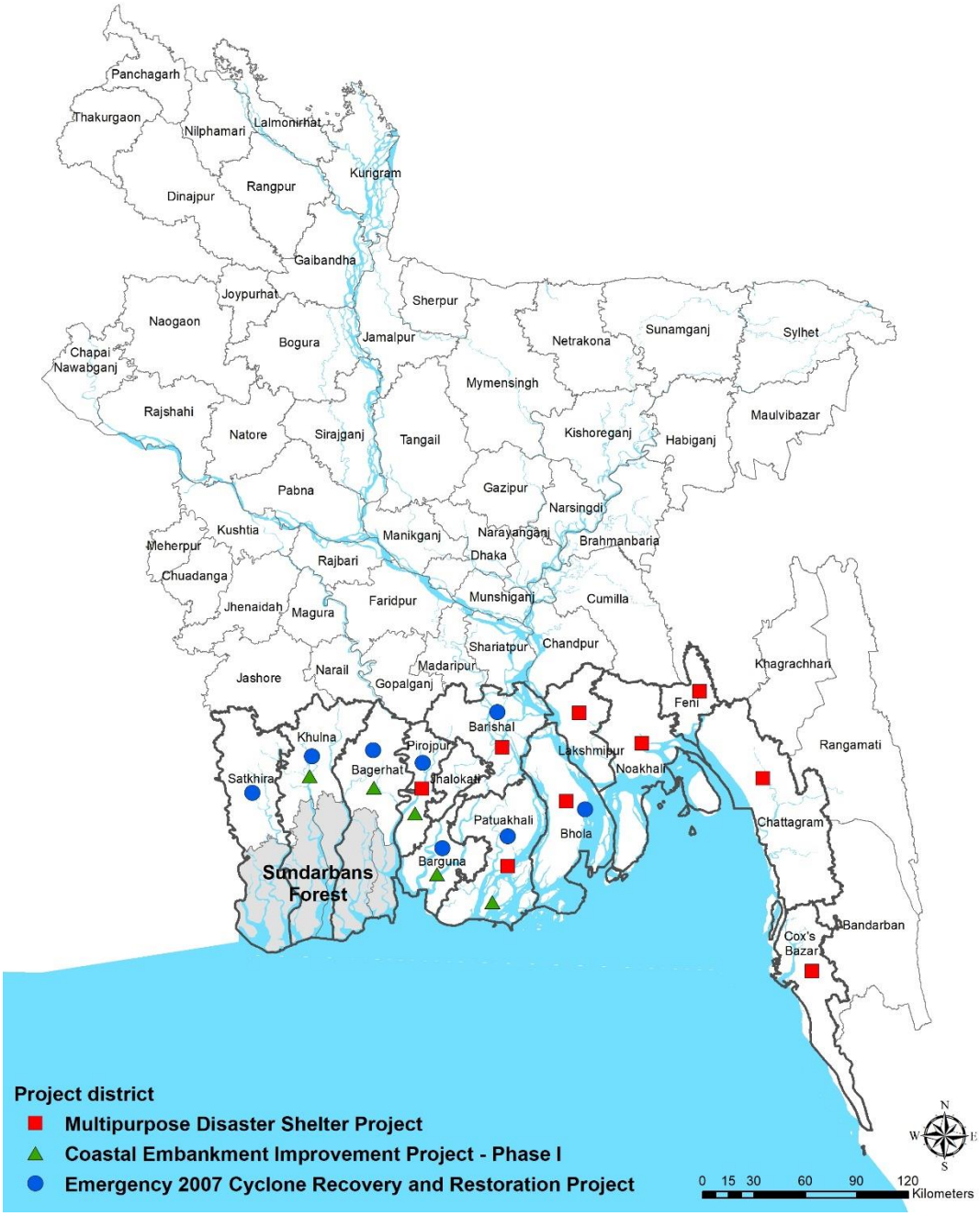
8. **Moving from disaster response to risk mitigation.** Bangladesh is renowned for its progress in managing natural disasters, in particular floods and cyclones, reflecting a gradual shift from a response-based approach to a strategy of more upstream risk mitigation and emergency preparedness. Bangladesh's *Second Poverty Reduction Strategy Paper* outlines a strategy for strengthening disaster management and risk reduction, mainstreaming disaster management into national policies, and enhancing community capacity for disaster preparedness and risk reduction. This focus on risk mitigation is also reflected in the priorities of the *National Plan for Disaster Management (NPDM)* (2016-2020) through: (i) understanding disaster risk, (ii) strengthening disaster risk governance to manage disaster risk, (iii) investing in disaster risk reduction for resilience, (iv) enhancing disaster preparedness for effective response, and (v) to "build back better" in recovery, rehabilitation and reconstruction. Expanding and increasing the number of multi-purpose shelters with adequate services in all coastal areas is a key objective of the NPDM.

9. **Scale-up of protection infrastructure on the coast.** After Cyclone Sidr (2007) made landfall, the Government of Bangladesh (GoB), with the support of several development partners, placed a renewed emphasis on the construction and rehabilitation of buildings where people could safely evacuate to and shelter during cyclones. Shelters were financed by the World Bank, the Bangladesh Climate Change Resilience Fund, the Islamic Development Bank, the Army Corps of Engineers, the Swiss Development Corporation, and the GoB's Disaster Management Bureau, among others. In 2008, the Bank-financed Emergency Cyclone Recovery and Restoration Project (ECRRP) targeted immediate livelihood recovery, coastal embankments, and over 800 new and rehabilitated shelters in nine coastal districts in the south-west heavily affected by Cyclone Sidr. That project led to the ongoing Coastal Embankment Improvement Project (CEIP) which is providing complete protection to selected polders and the Multipurpose Disaster Shelter Project (MDSP) which is scaling-up in the south-west, building 550 new shelters and rehabilitating 450.

[16] Hallegatte, Stephane, Adrien Vogt-Schilb, Mook Bangalore, and Julie Rozenberg. 2017. Unbreakable: Building the Resilience of the Poor in the Face of Natural Disasters. World Bank

[17] Brouwer, R., S. Akter, L. Brander, and E. Haque. 2007. "Socioeconomic Vulnerability and Adaptation to Environmental Risk: A Case Study of Climate Change and Flooding in Bangladesh."

Coastal Resilience Projects financed by the World Bank



10. **Linking infrastructure with early warning, evacuation, and community resilience.** Alongside the construction of multipurpose shelters, effective early warning systems and capacity building of institutions at national and community level are critical to the reduction of fatalities and economic losses from natural disasters and extreme weather events. Global best practices show that early warning systems require strong technical foundations and good knowledge of the risks, but they must also be strongly "people-centered" – with clear messages and

dissemination systems that reach those at risk, and effectively bring them to safety. Bangladesh's Cyclone Preparedness Program (CPP) started through a growing network of volunteers at the local level after the deadly cyclone of 1970. With direct links to the Bangladesh Meteorological Department, the entirely community-based and volunteer-staffed CPP (with which the Bank has been engaged since 1991) is responsible for early warning, search and rescue, evacuation, sheltering, first aid, relief distribution and rehabilitation activities. The CPP has over 200 government staff and about 50,000 volunteers (about 16,000 female volunteers) over 3,000 units, and it operates in 322 union parishads (local government units) and 37 *upazilas* (sub-units of districts) of Bangladesh's coastal districts.

11. **The proposed project will build on the successful experience in coastal protection to enhance the resilience of communities to floods.** The GoB is seeking to develop flood resilience by adopting approaches and developing infrastructure that minimizes damage to life and economy and helps in quick recovery after a flood event. The primary objective is to reduce the impact of floods and provide a safe space for evacuation and sheltering through infrastructure, and to improve the community's resilience through capacity building for effective early warning and community preparedness. As is the case on the coast, the infrastructure is multi-purpose, providing indirect benefits to the community beyond flood protection including better connectivity through enhanced roads, new and improved school buildings, hygiene facilities, etc. Furthermore, in the current context, it will provide a source of local employment and economic activity.

Relationship to CPF

12. **The proposed project is aligned with the objectives of the Country Partnership Framework (CPF) (FY 2016-2020):** The proposed project will support CPF objective 3.1: Increased Resilience of Population to Natural Disasters in Urban and Coastal Areas, through disaster preparedness and institutional capacity building actions, leading to climate resilience and disaster risk reduction.

13. **The Proposed project is aligned with Bangladesh's Seventh Five Year Plan FY 2016-2020 (SFYP):** Government of Bangladesh (GoB) has also the key objectives to reduce potential economic losses due to Climate Change (particularly from floods, cyclone, drought and salinity) which is the continuation of the previous five-year plan. Damage to infrastructure, economic impacts are also addressed in the Climate Change Adaptation in the context of the country. Managing hazards and disasters and infrastructural functioning and maintenance issues are among the actions which are proposed in SFYP which is also directly addressed through the proposed project.

14. **Alignment with WBG COVID-19 Crisis Response Approach:** The proposed project is aligned with Pillars 2 and 4 of the WBG COVID-19 Crisis Response Approach Paper. As massive unemployment generated by COVID-19 highlights the importance of job creation, the proposed labor-intensive public works will boost livelihoods while providing community small-scale infrastructure (Pillar 2 - Protecting Poor and Vulnerable People) and will enhance the disaster and climate resilience of the flood-vulnerable communities (Pillar 4 - Strengthening Policies, Institutions and Investments for Rebuilding Better). As indicated in the paper, maintaining a strong focus on climate change in the early stages of crisis response is critical to maintaining a line of sight to long-term goals, which this project will contribute to.

C. Proposed Development Objective(s)

The project development objective is to enhance the resilience of target vulnerable villages to floods, and improve the disaster preparedness and response capacity of government agencies.

Key Results (From PCN)

- Increased number of people with reduced flood vulnerability due to resilient protective infrastructure.
- Improved disaster preparedness capacity of GoB and communities.

D. Concept Description

15. The proposed project will finance infrastructure and systems to increase the flood resilience of vulnerable rural populations in Bangladesh through: (i) raising of community land, construction of shelters and community facilities, and connecting roads in flood-prone villages; and (ii) improving community disaster preparedness including early warning systems, evacuation process, awareness, response capacity, sheltering, and recovery. The project also aims at contributing to the COVID-19 recovery process by facilitating investments in public works that provide local employment opportunities.

16. The project area is proposed to be a number of the highest flood districts in the Brahmaputra-Jamuna (Kurigram, Rangpur, Gaibandha, Bogra, Sirajganj), Padma (Chapai Nawabganj, Rajshahi, Natore, Pabna), and Surma-Meghna river system in the North East (Sunamganj, Habiganj). Each of these areas, although similar, have important geographical and demographic differences and targeting them will allow the development of a diverse set of appropriate solutions that can be scaled-up. The criteria for selecting districts and upazilas will be based on flood risk and will take into consideration poverty, human capital index, and availability of suitable land.

Component A: Resilient Infrastructure

17. This component aims to provide greater protection to the vulnerable population and their valuable assets and livestock in the disaster-prone areas during future disasters through constructing climate-resilient flood shelters in flood-prone areas and associated resilient access roads according to the demands. Shelter design will follow the Bangladesh National Building Code (BNBC) including universal accessibility. These shelters will be used as multipurpose shelters, primarily as Primary Schools. At least three design options will be produced considering different sites based on footprint and land availability. Local communities will be consulted, and feedback will be considered while finalizing the design options. As is the case under MDSP, School Management Committees (SMCs) and community representatives will play a key role in the regular operations and maintenance of the shelters along with associated facilities.

Component B: Technical Assistance and Capacity Building for Disaster Preparedness and Response Capacity

18. Improvement of early warning system, evacuation process, and disaster response capacity: Successful prediction through early warning system is a key means to minimize the impact of any disaster. This component will assess and further develop existing early warning system for flood and other relevant natural disasters to increase their effectiveness. GoB agencies will be equipped with necessary tools, equipment and means to increase response capacity during disasters and post-disaster to maximize recovery of lives and properties and minimize impact of disasters. This activity will build on the early-warning services developed under the ongoing Bank-financed Bangladesh Weather and Climate Services Regional Project.

Component C: Project Management, Design and Supervision, Monitoring and Evaluation

Component D: Contingency Emergency Response

19. **This will ensure provision of immediate response to an Eligible Crisis or Health Emergency.** In the event of an Eligible Crisis or Emergency, the proposed project will contribute to providing immediate and effective response to said crisis or emergency. Any unused balance under the first three components can be reallocated to the CERC component, in the event of an emergency.

Legal Operational Policies	Triggered?
Projects on International Waterways OP 7.50	No
Projects in Disputed Areas OP 7.60	No

Summary of Screening of Environmental and Social Risks and Impacts

20. The substantial environment risk is driven by the potential negative impact of rubber dams on local ecosystems, irrigation schemes, navigation and river morphology depending on their type, size, location, and operation. However, social risk of the proposed project at this stage is rated Moderate given that the activities will benefit the communities in the high flood-prone areas in the country. Sites for civil works will be restricted to land legally and socially designated and used for public or community purpose with space or scope for project civil works. Local demand may lead to the use of private land on voluntary donation basis where existing public or community land may not be available. Selection of land for civil works will avoid any adverse impacts on small ethnic communities but they are present in some of the project districts among the beneficiaries. Even if small, labor influx may be associated with low to moderate risk of gender-based violence (GBV) and gender concerns among project staff including construction workers and the surrounding community. LGED has experience of managing environmental and social issues under Bank-financed projects as per the old safeguards operational policies. They are, however, relatively new to the Bank ESF requirements and procedures. As the locations of the sub-projects will be finalized during implementation stage, an environmental and social management framework (ESMF) will be prepared during project preparation and disclosed before project appraisal. ESMF preparation will follow due process of consultation that maintains health protocols with respect to the COVID-19 situation, and will address elements of gender, GBV and labor influx to mitigate the likely risks and impacts to arise during design and construction of civil works under the project. A stakeholder engagement plan (SEP) will be prepared and followed through.

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APPROVAL

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