Resilient Infrastructure for Adaptation and Vulnerability Reduction Project

BASIC INFORMATION

APPROVAL DATE:
July 15
2022

END DATE:
June 30
2028

TOTAL COMMITMENT:
$500
million

IMPLEMENTING AGENCIES:
Local Government Engineering Department

REDUCING VULNERABILITIES THROUGH RESILIENT INFRASTRUCTURE

OVERVIEW

Bangladesh is a deltaic country consisting of floodplains created by over 400 rivers and channels. Flooding in Bangladesh is common, recurring with varying magnitude and intensity, affecting a greater population than any other natural hazard. Floods and riverbank erosion in Bangladesh affect about one million people annually. Rising temperatures leading to more intense and unpredictable rainfalls during the monsoon season and the already high probability of cyclones are expected to further increase resulting in increased tidal inundation. The Global Climate Risk Index ranks Bangladesh as the world's seventh most-affected country in 2000-2019.

CHALLENGE

Severe floods during the last week of June 2020, affected 5.4 million people; about 37 percent of the total area of the country was flooded affecting 33 districts; the disaster was the longest flooding period in the last 22 years. In 2017, large scale floods killed 145 people and affected about 8 million people in 32 districts, putting 1.5 million people in need of immediate food assistance. Frequent and recurrent floods have had a significant impact on lives and livelihood. Floods disproportionally affect the poor. During floods, families take cattle and belongings they can carry and evacuate to available public land, usually the grounds around public buildings and elevated roads that double as embankments. They stay in makeshift shelters in poor sanitary conditions, with precarious access to safe water and sanitation, insufficient and unsafe spaces for cooking and sleeping, and are exposed to a range of compounding risks from gender-based violence to illnesses that have short and long-term implications on health and nutrition outcomes. An assessment of the impact of natural disasters on primary schools found that 84 percent of sampled schools in disaster-prone areas experienced extended closures lasting an average of 26 days.

There is also a high mortality rate from lightning strikes, over 2,000 people died in lightning strikes in the country from 2011 to 2020.[1] In 2021, at least 177 people, including 122 farmers, were killed and 47 injured by lightning strikes across the country between March 31 and June 7. [2]

[1] GoB, MoDMR. National Plan for Disaster Management (NPDM) 2021-2025.
[2] https://www.dhakatribune.com/bangladesh/2021/06/18/experts-lightning-bangladesh-s-deadliest-natural-disaster.

RESULTS

- **500** new flood shelters with facilities for women, disable people, and children.
- **415 km** of rehabilitated and improved resilient community access roads.
- **1,400** Lightning protection systems.
- **500** community risk maps developed.

The intervention designs will factor in climate change and disaster risks. The multipurpose shelters and approach roads will provide benefits to the community beyond flood protection, including better connectivity through enhanced roads, new and improved school buildings, hygiene facilities, WASH and nutrition focused messaging and behavior change interventions.

APPROACH

The GoB has continuously strengthened its flood management plans and strategies and recognizes the need to further invest in non-coastal flooding. The Bangladesh Delta Plan 2100 has several priority projects on shelters with a focus on safeguarding the livelihoods of vulnerable communities by extending early warning services and floodproofing critical infrastructure. The project aims to improve disaster preparedness against inland flooding in 14 flood-prone districts. It will finance infrastructure and systems to increase the resilience of vulnerable populations in non-coastal areas against riverine and flash floods by building resilient flood shelters and community infrastructure and strengthening the capacity of government agencies and communities in disaster preparedness and response.

TOWARDS THE FUTURE

Data on flood shelter availability and their conditions will be increasingly critical to manage disasters as climate change increases the frequency and severity of both coastal and non-coastal flood events. A database will be produced as part of the project and will be a major contribution to future investment planning.

Designs are constantly being upgraded to improve the accessibility and facilities at the buildings, including provisions for pregnant women and people with disabilities, improved water storage and rainwater harvesting, energy efficiency and lightning protection systems. Innovations in materials, designs and community participation will make it possible to build more, better, and faster.