



# Climate Change Adaptation Interventions in SHOUHARDO III (2015-2022)

Over the last two decades, the Global Climate Risk Index rates Bangladesh as the seventh most affected country in the world from extreme weather events. Bangladesh's vulnerability is due to several factors, including rising sea levels, flooding, cyclones, and increasing temperatures (Source: Germanwatch's Global Climate Risk Index 2021).

Strengthening Household Ability to Respond to Development Opportunities (SHOUHARDO) III is an integrated food and nutrition security and resilience-building program funded by the United States Agency for International Development (USAID) and Government of Bangladesh. The program's operating areas include eight northern districts in the Char and Haor wetlands that are often affected by climate-induced disasters. SHOUHARDO III directly supports program participants in climate change adaptation. The program builds individual and community capacity to better withstand the impacts of the climate emergency affecting Bangladesh. This document presents an overview of the SHOUHARDO III program's most significant climate change adaptation interventions.

## Comprehensive Disaster and Climate Risk Management

The program developed a comprehensive Disaster Risk Reduction (DRR) mechanism to enhance community preparedness for withstanding shocks. Community-level Facilitators (CLFs) (such as DRR leaders, religious leaders) and Local Service Providers (LSPs) engage in disaster preparedness activities. The program mobilized 2,900 DRR leaders (Female 1,894, Male 1,006) to facilitate the DRR process in communities. The DRR leaders have been critical in promoting collective action, disseminating early warnings and advisories, updating the Risk Reduction, Adaption, and Contingency Plans (RRA&CP), and helping the affected population access Social Safety Net support. Religious leaders disseminate awareness messages on topics such as early warnings, health issues, nutrition, and hygiene. The LSPs use their service provision as opportunities to share disaster preparedness messages. For example, livestock vaccinators share climate-related livestock health messages through vaccination campaigns and seed dealers and agents provide information on climate-resilient seeds and seedlings.



## Adoption of Climate-Smart Technology and Practices

SHOUHARDO III introduced participants to climate-smart agricultural practices and has facilitated the uptake of climate-smart seed varieties and technologies. Additionally, the program established linkages between participants and public and private sector entities to promote the adoption of climate-resilient seed varieties, technology, and agricultural practices. For example, SHOUHARDO III introduced rice varieties that are tolerant to underwater submersion to withstand recurrent flooding. Moreover, the program promoted the use of traditional agricultural technologies for climate change adaptation, including sand bar crops, sac methods, floating seedbeds, and raised beds. The program also introduced "Banana Stem Haylage<sup>1</sup>" in collaboration with Bangladesh Agricultural University to address the scarcity of cattle feeds during natural disasters and raised platforms in flood-prone areas for livestock rearing. The program prioritizes strengthening the capacity of farmers to address climate change-related challenges through the introduction of climate-smart technologies. According to the Participant Based Survey (PaBS) FY22 report, 89,363 farmers are now utilizing climate-smart technologies and information.

<sup>1</sup> Haylage: Nutrient-dense cattle feed prepared using banana stem after harvesting banana. SHOUHARDO III program is working to expand this feed after a successful pilot in collaboration with Bangladesh Agricultural University, Mymensingh.



## Infrastructure Development and Management

### Homestead Plinths

SHOUHARDO III raised homestead plinths to protect houses from inundation during floods. Raised homestead plinths allow households to pursue year-round vegetable cultivation and livestock rearing. The raised plinths also help other flood-affected people in the community, as they can bring their belongings and take shelter on their neighbors' raised plinths, while in the past, farmers often lost preserved food, poultry, and livestock during floods. There were a total of 2,425 plinths raised, either through cash-for-work schemes or flood recovery funds.



### Mound Protection Walls



Mound protection walls were constructed in the Haor areas to protect elevated mounds from wave erosion, which protects the lives and assets of the poor and extreme poor (PEP) households that live on these mounds. In addition to reducing losses caused by wave erosion, the elevated mounds provide space for year-round vegetable cultivation, which allows for a sustained food supply to meet the nutritional needs for the PEP population. A total of eight mound protection walls were constructed in the Haor areas.

([Climate Change Adaptation in SHOUHARDO III](#))

### School and Flood Shelters

The program built 14 school and flood shelters in the riverine Char areas, which protect community members' lives, livestock, and other assets during the flood. These shelters are also used as educational institutions throughout the year.



### DRR Infrastructure Maintenance



A memorandum of understanding between SHOUHARDO III and the Local Government Engineering Department (LGED) allows for the ongoing maintenance of more than 60 structures, which were originally constructed with support from USAID. Structures undergoing maintenance include rural roads, school and flood shelters, rural markets, Union Parishad complexes, drainage culverts, and mound protection walls.

## Early Warning and Advisory Services

SHOUHARDO III program participants and communities receive early warnings concerning heavy rains, severe cold, and flooding through the Government of Bangladesh's hotline number, the Union Digital Center, and the Bangladesh Metrological Department and Flood Forecasting and Warning Center website. In addition to these sources, program participants receive early warning and advisory voice messages from the Regional Integrated Multi-Hazard Early Warning System for Africa and Asia. As per the PaBS 2022, 16,800 (100%) households received early warnings from these various sources.

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