

## Climate Change Interventions in SHOUHARDO III Program

Strengthening Household Ability to Respond to Development Opportunities (SHOUHARDO) III is an integrated food and nutrition security and resilience-building program funded by the USAID and Government of Bangladesh. The areas where the program operates include eight northern districts in Bangladesh that are prone to disaster-related vulnerabilities. The adverse effects of climate change also influence the lives of people living in these far-flung communities in char and haor regions including devastating changes in agriculture, biodiversity, water and sanitation, livestock diseases, and malnutrition. Some of the major effects of climate change are:

- The agriculture sector in both char and haor severely suffers from the threat of climate change. The heightened frequency and intensity of floods, drought, and river erosion affect crop production and fisheries. In addition, cold waves during winter hamper vegetable production leaving an overall negative impact on food security.
- Deforestation and deteriorated biodiversity put people's lives and livelihoods at stake. Deforestation results from destroying forests to increase food production and the use of fuelwood for multiple purposes. Increased demand for fish also leads to overfishing which destroys biodiversity.
- Increased incidence of recurrent climatic shocks and stresses pose significant threats to water and sanitation security for local communities. It is noteworthy that the groundwater level is already going down resulting in inadequate sanitation facilities.
- Increased economic and social insecurity associated with climate change led to social conflict and domestic violence that swayed the lives and livelihood of people, particularly of women and girls.
- Polluted floodwater is one of the greatest threats to human health as it causes vector diseases such as Diarrhea, cholera, skin diseases.
- Climate change triggers displacement leaving people with limited choice rather than forced migration to the cities as the local earning sources reduce, particularly during the monsoon season.
- Increased livestock and poultry infection and death during cold waves and rainy seasons take a heavy toll on people's livelihoods in Char and Haor areas.
- Destroyed/damaged infrastructures hamper the market system, health system, and education facilities.

## Climate Change Adaptation initiatives of SHOUHARDO III

### Homestead Plinth raising



**Total built: 2,425:**

- 681 as regular Cash For Work schemes using Government of Bangladesh funds
- 1,744 supported by USAID for Flood Recovery

Plinths protect houses from inundation by floodwater. It also allows household members to opt for year-round vegetable cultivation and rearing livestock and poultry in the homestead. Houses built on raise plinths serve the purpose of shelter homes for people and their valuable assets during floods. During the 2020 flood, the raised homesteads served as safe spaces, and members from several neighboring households took shelter in these raised homesteads.

USAID blog on Plinths raising:

<https://www.usaid.gov/bangladesh/press-releases/jul-24-2020-bangladesh-flood-victims-receive-emergency-assistance-us>

[https://shouhardo.carebangladesh.org/en\\_US/shouhardho\\_news/plinths-for-floods-how-this-infrastructure-played-a-critical-role-in-peoples-survival/](https://shouhardo.carebangladesh.org/en_US/shouhardho_news/plinths-for-floods-how-this-infrastructure-played-a-critical-role-in-peoples-survival/)

## Early warning and advisory service (RIMES)



### Reached 10,176 people

Farmers receive location-specific early warning (raining probability, humidity, and temperature) and applied the information in crop production and livestock management.

*"I am a housewife and my husband is a day laborer. I heard the news of the upcoming flood through the voice message and shared it with my husband. We shared the news with others and urged them to take early action according to the advisory. We got five days' lead time before the flood and I was able to secure my livestock and store feed and fodder. I also stored dry food, saline, water purification tablet and moved to flood shelter safely. During previous floods, we could not prepare ourselves as we rarely received any flood forecast. Every year we had to face different water-borne diseases and couldn't store feed for our livestock. But this year I am very happy as every member of my family was healthy and I was better prepared."*

----Majeda Begum, Paglar Char Village,  
Erendabari Union, Fulchhari Upazila, Gaibandha.

DRR Leaders Samsul, Nazma, and Lipi of Hapania village of Chouhali Upazila shared that they received voice SMS from the SHOUHARDO III program on a heatwave in mid-March of 2021 along with advisory for livestock (e.g., cow, goat), to take bath and watering to reduce risk. After receiving the message, they disseminated it through announcing through megaphone from their nearest mosques instantly and the people reduced risk by applying the measures and save their cattle rearing.

<https://thefinancialexpress.com.bd/national/country/early-warning-and-forecast-system-will-help-save-livelihoods-1574337713>

[https://shouhardo.carebangladesh.org/en\\_US/shouhardho\\_news/the-power-of-information-to-save-lives/](https://shouhardo.carebangladesh.org/en_US/shouhardho_news/the-power-of-information-to-save-lives/)

### Adoption of climate-smart technology and information



**99.3% of farmer participants use at least three technologies**  
(Participant-Based Survey, Fiscal Year 2020)

SHOUHARDO III, in collaboration with Bangladesh Rice Research Institute introduced sub-merged water tolerant rice variety (e.g., BRRI Dhan 58, 51, BINA 14) and climate-smart technology such as the use of sack method in vegetable production. The program also promoted rearing goats using platform and the use bio fertilizer. The farmers are now harvesting a viable third crop like mustard and maize that adds to increased food and nutrition security. Using the climate-smart agricultural technology and variety helped farmers to adapt to climate change challenges.

### Cooking using stove



**Raised awareness on fuel consumption for 3,070 volunteers**

**2.6 % of mothers prepare food that do not report increased exposure to smoke because of preparing US Government-donated commodities**

SHOUHARDO III promoted the adoption of improved cooking technologies to prevent health problems caused by concentrated smoke emitted from traditional stoves, decrease fuel consumption, and reduce environmental pollution.

### Environment-friendly pest and disease management practice



**70.7% participants did this practice in agriculture**  
(PABS, FY20)

**96.7% participants applied Integrated Pest Management (Ibid)**

SHOUHARDO III facilitated awareness raising session on non-chemical pest and disease management in agriculture for farmers. The program also promoted botanical and cultural pest management methods in cultivating the crop with the intention to reducing environmental pollution, conserve the ecosystem and reduce the economic cost.

### Khas land



The program facilitated the process of acquiring khas land for 214 program participants in both Char and Haor regions. These people were displaced due to the effects of climate change. Now they not only have a place to stay but also can utilize the space to grow vegetables for increasing intake of nutrient-rich foods.

[https://shouhardo.carebangladesh.org/en\\_US/mobilizing-communities-for-a-collective-voice/](https://shouhardo.carebangladesh.org/en_US/mobilizing-communities-for-a-collective-voice/)

## School cum Flood shelter



### Built 14 in Char region

The school cum flood shelter helps to protect human lives and cattle from the flood water during the monsoon season every year.

[https://shouhardo.carebangladesh.org/en\\_US/infrastructure/](https://shouhardo.carebangladesh.org/en_US/infrastructure/)

## Brick Mount protection wall



### Built eight in Haor

Brick mound protection walls protect the mounds (in elevated villages in haor) from wave erosion.

## Homestead vegetable production and tree plantation



### 32,444 program participants practiced homestead gardening

SHOUHARDO III built the capacity of program participating households to grow vegetables at their homestead to improve intaking nutrition-rich food.

## Village Savings & Loan Association (VSLA)



### Facilitated the formation of 2,216 VSLA groups

The program introduced the VSLA model to leave sustainable impact on the lives of women and increase their decision-making capacity and choice. VSLA group members use their savings to purchase agricultural inputs, technology, and irrigation. Savings contributed to increased production and income for the group members and reduced the risk of climate risks on their livelihood.

<https://www.youtube.com/watch?v=cjif4IZ2Q4Y>

## Capacity building training



### Trained 14,435 program participants

The program provided capacity building training to program participants, Local Service Providers (LSPs), Union Disaster Management Committees and volunteers on the disaster risk reduction procedures and climate change issues.

## Strengthen the service model through institutional linkage



### 2,893 Disaster Risk Reduction (DRR) leaders on the ground facilitating dissemination of DRR messages through LSPs

The program strengthened linkage with GoB service delivery departments, private sector actors and local service providers. It also engaged with the risk reduction system in Bangladesh.

[https://shouhardo.carebangladesh.org/en\\_US/shouhardo\\_news/lsp-of-water-quality-testing-services/](https://shouhardo.carebangladesh.org/en_US/shouhardo_news/lsp-of-water-quality-testing-services/)

The trained stakeholders adapted to the climate risk reduction approach in their lives and profession such as LSPs who then provided risk reduction information to farmers. Besides, the UDMC took over the risk mitigation and adaptation approach in their development program. In many cases, the UDMC provided support to the villagers for building infrastructure.

## Environment screening



As part of the environmental compliances, the program developed the Initial Environmental Examination (IEE) and Environmental Mitigation and Monitoring Plan (EMMP) following the USAID environmental procedures and identified potential environmental impacts and probable mitigation measures. The program provided Environmental Compliance Management (ECM) training to the concerned staff of CARE and NGOs. The program also conducted environmental screening of the proposed activities and monitoring of the mitigation measures following the approved EMMP.

### Orientation on Floating Garden



#### Trained 66 PEP participants on floating garden

The program trained participants on floating garden and encouraged to build demo as one of the climate risk adaptation methods.

### Climate Risk Management (CRM)



**48.8% people using climate information or implementing risk-reducing actions to improve resilience to climate change**

SHOUHARDO III assessed the climate risk of all interventions included in S3X proposal. The program ranked the risk and accordingly considered Climate Risk Management Options. The program also provided training to staff and participants on climate risk management approach to strengthen knowledge and practice. Currently, program participants, particularly the producers are practicing a climate risk approach.

### Progress update of the EMPP indicator (PABS, FY20)



**About 19.1% households had physically improved sanitation facilities with feces visibly present on the floor, wall, or area immediately surrounding the facility.**



**Nearly, 83% IGA participants practiced safe management of waste materials and pesticides using Mission/Bangladesh PERSUAP permitted pesticides.**



**Around 65.7% households used an improved sanitation facility (FFP 41).**



**Almost all the households (99.7%) used an improved drinking water source (FFP 40).**



**Nearly, 2.6% mothers prepared food that don't report increased exposure to smoke because of preparing US Government-donated commodities.**

*"This document is made possible by the generous support of the American people through the United States Agency for International Development (USAID). The Contents are the responsibility of CARE Bangladesh and do not necessarily reflect the views of USAID or the United States."*

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