



KAUNIA UPAZILA  
TEESTA  
RIVER BASIN  
BANGLADESH

# CLIMATE AND FLOOD RESILIENT HOUSING

BCAS along with its partner C4RE Services Ltd. is conducting action research on Climate and Flood Resilient (CFR) housing in four clusters in two villages namely Char Dhushmara and Char Haibat Kha in Kaunia *upazila* (sub-district) of Rangpur district in Bangladesh.

*Expected Outcome: Upscaling this pilot can bring relief from inundation and livelihood insecurity to the flood affected residents, and provide habitat security including access to basic amenities, water, sanitation, etc. even during floods and inundation.*

## WHY?

Kaunia upazila is a downstream floodplain where there are vulnerable *chars* (sand dunes formed due to river flow) inside and near the Teesta river regularly affected by seasonal floods, riverbank erosion, thunderstorms, drought, heat and cold waves.

With floods becoming more extreme and frequent owing to the changing climate and anthropogenic activities, it is important to create robust evidence on the effectiveness and applicability of potential adaptation practices.



Similar to many other areas of Bangladesh, the selected two villages are affected by seasonal floods each year which is similar to many other areas of Bangladesh. Char Dhushmara village is situated at the left bank of Teesta River while Char Haibat Kha is on the right bank of the river. Both villages are situated at a few kilometers downstream of the Teesta bridge at Kaunia.

# WHAT?

Four cluster houses have been selected, in two villages where seasonal floods occur: Char Dhushmara and Char Haibat Kha, where 12 houses will be retrofitted on a raised platform

- Houses will be elevated on raised plinths with facilities for sanitation, safe drinking water, and small household livelihoods of poultry, livestock, and homestead garden.
- Various grass species and fruit trees have been planted at the slope and boundary of the raised area as a natural barrier against soil erosion.
- Improved cooking stove (ICS), and solar panels are additional features to cater to energy needs.
- Skill development training on homestead gardening, poultry rearing, and handicrafts are provided as part of implementation
- A manual on developing climate and flood resilient construction materials and technologies is being developed



# HOW?

Community members engaged in the design, demonstration and documentation process so that they feel ownership both of the process and outcomes.

A baseline household survey has been conducted to collect general information on households and their resources. Based on this information a total of 12 households in four clusters have been selected for pilot demonstration of CFR houses in two villages. The four household clusters have been selected from three income groups: ultra-poor (2 clusters), poor (1 cluster), and middle income (1 cluster).

- Participatory performance monitoring of the CFR houses is being done through regular visits by project staff to consult with members of participating households on the performance of the houses through focused group discussions and in-depth interviews.
- An end-line evaluation survey, involving members of participating households and community leaders will be carried out to monitor the impact of CFR housing in the community as a whole.
- The evaluation will focus on response to and acceptance of the houses in the community, any changes in the socio-cultural dynamic as a result thereof, replication taking place (if any), entrepreneurship on CFR houses developed, etc.
- Also, community level responses and acceptance of the houses, replication taking place (if any), and entrepreneurship on CFR houses will be developed.

