



Resilience Facing Crisis And Reducing The Forfeiture.

...in drought and other climate vulnerable areas
...reducing agricultural damage during
...droughts, and other natural calamities. When
...farmers work in a group to use climate resilient
...methods, climate change causes less damage to
...production and families bounce back from shocks
faster.

CARE's Pathways to Secure and Resilient Livelihoods work
with women smallholder farmers developed agricultural
resilience by promoting climate smart and sustainable
agriculture practices. The project worked through providing
training and other necessary inputs for farmers to face the
natural calamities like flood and famine, so that they can
reduce the production damage and maintain a sustainable
growth.



One of the program's major interventions was to work with farmers who were susceptible to natural disasters and teach them skills to increase their resilience in the face of climate change, which damages not only production, but also food and nutrition outcomes. During program implementation, the target areas faced different natural calamities that disrupted production. However, the program achieved an effective change at multiple levels in a range of areas, and building resilience covered a huge portion of that. In the Pathways program 216 farmers have been trained in a mobile-based ICT application, which collects disaster and agriculture information; (e.g. forecast on rain and floods, suitable planting times, pest disease attack symptoms and preventive measures etc.) The project targeted 5,582 poor women farmers and agriculture wage earner from targeted communities to build their resilience and increase their productive and equitable engagement in

climate smart agriculture. As a first step, a total of 398 farmer leaders have been trained to develop their leadership and negotiation skills.

Though women's mobility outside their communities, and even outside their homes in some communities, has been a challenge, the project managed to engage a total of 398 women farmer leaders farmers to participate in the leadership and technical development training around rice, dairy and potato cultivation in homestead garden and farming areas. The project's Farmers Field Business School (FFBS) model served as the main platform for building farmers capacity on climate resilient agriculture practices. The Department of Agriculture Extension and different research institutions—including BIRRI and BINA—are working with communities for different trial set up and using the same platform of FFBS developed in targeted areas.



How do we do it?

Increasing productive and equitable engagement of poor farmers in climate resilient agriculture:

Bangladesh is at a high risk of multiple climate-related disasters. Pathways two target districts, Satkhira and Kurigram from South-West and North-West Bangladesh are relatively more vulnerable to climate change than other parts of Bangladesh, despite having dissimilar climatic contexts. Satkhira suffers from cyclones, salinity in water and soil, and water logging. In recent days, water logging has become a prolonged climate change impact at Satkhira that damages houses and crops as crops need air in the soil to flourish. The water logging is accompanied with high levels of soil salinity, which makes it difficult for plants to absorb sufficient nutrients as excess salt is toxic for crops. On the opposite end of the spectrum, Kurigram suffers from acute seasonal drought, causing damaged seedbeds and pest infestation. The sandy soil, heavy rainfall and floods, as well as prolonged low temperatures in the winter and riverbank erosion, causes damage to houses, agriculture and livelihoods in the Northwest as well.

Improving knowledge, skills, relationships, self-confidence and conviction of poor women farmers:

The Community Vulnerability and Capacity Assessment (CVCA) session helped communities identify area-specific key climate vulnerabilities around agriculture and the Gender based vulnerabilities, as well to identify the key facilitation areas and to raise awareness in communities on the climatic impact on their livelihoods. The activity also serves to build their capacity to best adapt with the climate change impacts. The table below shows the summary of key vulnerabilities and community adaptive planning that has been Pathways followed to design capacity building packages.

Government and other organizational support: The of Agriculture and neighborhood farmers supported flood-affected farmers in re-cultivating lands by giving seedling from their land at higher elevation to those who had their fields flood. In some plots, developing drainage systems immediately to recover from damage and waste floated-in by water was cleaned immediately that had been affecting plant.

Community Adaptive Action Plan:

Table: Community Adaptive Action Plan

Key Vulnerabilities and coping practice	Community Adaptive Action Plan
Changes in duration and pattern of flood, drought, water logging, cold and fog. (e.g. prolong and recurrent flood, increased duration of water logging, more dense fog)	Adopt climate smart practices and climate adaptive varieties
Damages to crops, plants, home gardens, compost and other productive assets including selling stored seed for next season	Communicate with Department of Agriculture Extension, NGOs and different research institutes to access information and skills on sustainable agriculture practice and flood, drought and saline tolerant varieties.
Drought and dense fog affecting crop production and delaying cultivation	Flood and drought tolerant rice variety seed collection, cultivation and storage for next season
Poor knowledge and low access to information on climate smart practices and adaptive varieties	Cultivate early and short-duration seed varieties of yield.
Delay in sowing and planting, as farmers have to wait to for flood waters to drain or to wait for rain during a drought. This also prevents farmer from cultivating diversified crop using the same land.	Adjust cropping patterns and their timing according to updated climate and disaster information to plan for early and late cultivation.
Additional costs for pumping out water increase production costs	Know about and practice efficient use of irrigation
Production cost increases as disease and pest attack increased significantly that needs more use of pesticides and fertilizers	Learn and practice alternate strategies from DAE and other GO, NGO
	Produce compost fertilizer to reduce production cost and increase land fertility



For Further Query or Technical Assistance

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