

Bangladesh

Spotlight: Helping Farmers Cope with Climate Change

Smallholder farmers in Bangladesh face increasing challenges due to climate change and soil degradation. Rising water levels in coastal areas result in high soil salinity and a scarcity of irrigation water during the dry months and saturated soil in the rainy season. One solution is the sorjan method—planting in raised rows separated by channels of water. This keeps roots from becoming waterlogged in wet months and reserves water for aquaculture and for use in the dry season.

The EWS-KT Bangladesh team also trains farmers in using covered nurseries to protect seedlings from more frequent torrential rains, mulch to retain

soil moisture in the dry season, and trellising to make it easier to monitor crops and treat pests and diseases. Our trainings on how to choose a crop and create a business plan raise productivity and increase farmer resilience. We also encourage the use of vermicompost and manure to improve soil health and reduce reliance on chemical fertilizers.

These techniques provide new approaches for farmers as they cope with a rapidly changing environment.



Md. Ibrahim tends his bitter gourd

2022 Results

12,085

FARMERS TRAINED



581

 DEMO PLOTS ESTABLISHED

AVERAGE NET PROFIT
US\$ **190.30** per crop cycle, 500 sq. m. plot

HIGHEST NET PROFIT
CUCUMBER
US\$ **268.17** AVERAGE NET PROFIT per crop cycle, 500 sq. m. plot

1,199

 TRAINING EVENTS

Weathering Cyclone Sitrang with a Covered Nursery

For generations, farmers in Miyajanpur, in southern Bangladesh, have started their crops in the same way. They soak the seeds, then place them in balls made of soil and manure. After 4 or 5 days, they transplant the seedlings in the field because the young plants are not able to survive for long in the balls.

Like his ancestors, 22-year-old Md. Ibrahim is a farmer. In 2022, he started a bitter melon demonstration plot with EWS-KT. For the first time, he planted his seeds in seed trays and protected them from insects, sun, and rainstorms in a covered nursery. Just before it was time to transplant the seedlings, Cyclone Sitrang struck. Most of the seedlings in the area were destroyed by the cyclone, but Md. Ibrahim's were safe in the protected nursery.

After the cyclone, the land was too wet to transplant the seedlings. But growing in the seed trays, they stayed healthy until it was dry enough to plant. When other farmers were sowing a

second batch of seeds to replace what they had lost, Md. Ibrahim was busy transplanting his seedlings into his field.

“These techniques are new to us, but I experienced the benefits firsthand.”

– Md. Ibrahim

Saved from the cyclone, his bitter melon demo plot earned a 400% return on investment. With some of the profit, he expanded the area under cultivation, starting a new crop of bitter melon—in seed trays in the protected nursery.

This is part of the Smart Farming, Healthy Food project, co-funded by the Netherlands Enterprise Agency (RVO) and led by Solidaridad Netherlands.