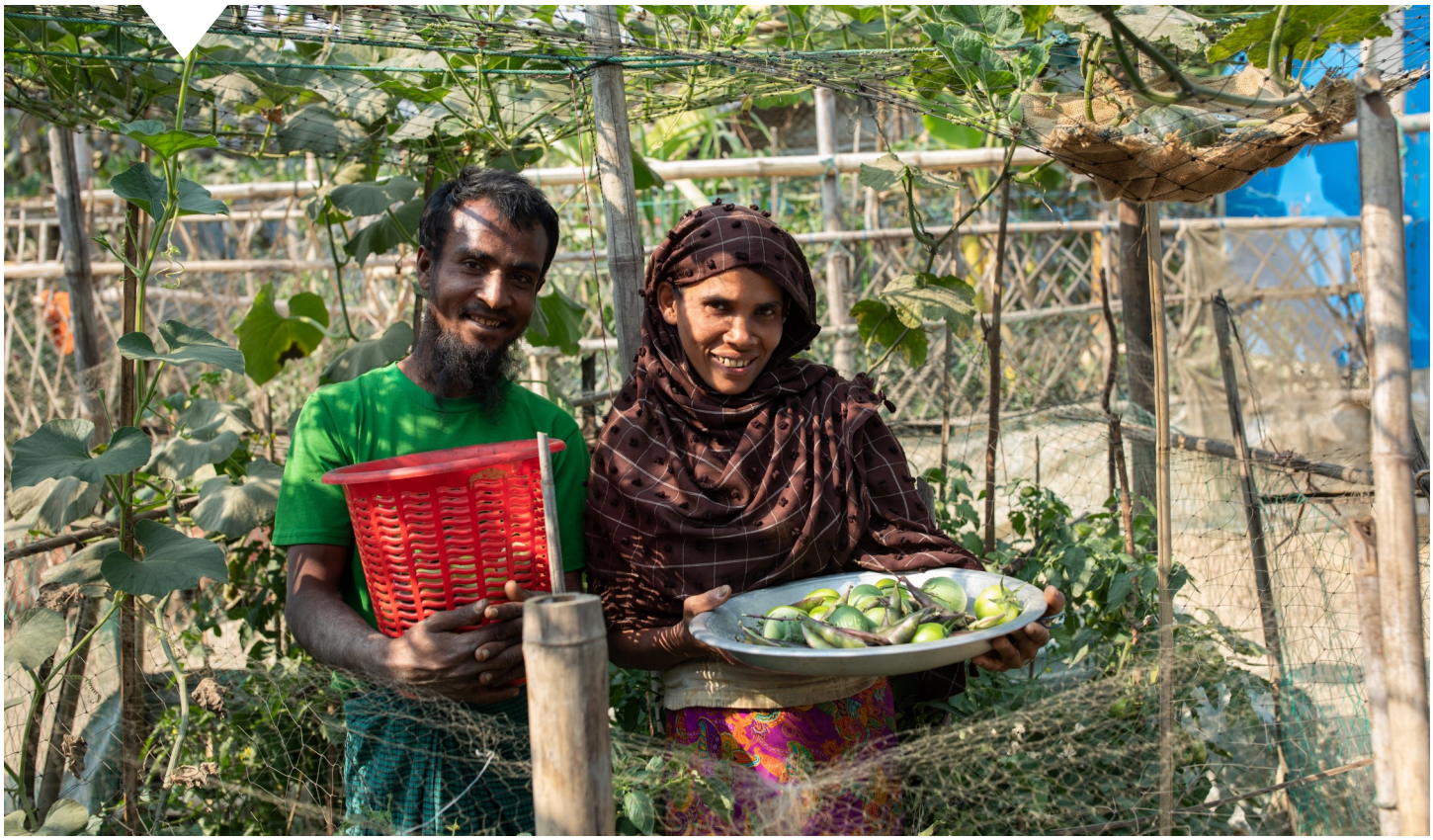
UNHCR The UN Refugee Agency | CLIMATE ACTION

GOOD PRACTICE



COX'S BAZAR, BANGLADESH

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Kutupalong camp, Bangladesh. Kefayetullah and Fatima received support to create a "vertical" garden" beside their shelter. Kefayetullah has a disability and cannot use his left arm, but he still helps Fatima tend the vegetables. Vertical gardening is a practical solution to better utilise space in a crowded settlement while enabling refugees to produce vegetables, support their own livelihoods and supply a nutritious diet. Green approaches are part of UNHCR's master plan approach to sustainable settlement planning.

A vision to mitigate and adapt to climate change

UNHCR's Strategic Framework for Climate Action highlights the need to mitigate environmental degradation in displacement settings as well as help displaced and host communities prepare and adapt to the foreseeable effects of the climate emergency. Climate and environmental risks should be considered at all stages of the humanitarian response. In flood-prone Bangladesh, stakeholder across sectors including government actors, academia, refugees, and host communities have worked together to identify sustainable solutions. UNHCR and partners have been working on climate change adaptation and preparedness by reducing the risk of flooding and landslides caused by monsoon storms. Efforts include planned relocations, cyclone and monsoon preparedness and response, and readiness for floods and other natural hazards. Fast growing trees have stabilized hillsides and restored river catchment areas. Alternative energy sources have provided an substitute to firewood for cooking, shelters have been "greened" and refugee volunteers trained in these areas, all of which contribute to protection outcomes, environmental preservation and climate mitigation.

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Disaster risk for ~890,000 Rohingya refugees in Cox's Bazar

Bangladesh has always been prone to tropical storms and flooding, but climate change is causing more frequent and intense weather events. These events pose great risk to Bangladeshis and to the Rohingya refugees hosted in Cox's Bazar. During monsoon season—June-October—torrential rainfall sweeps through the refugee settlements, causing flooding and landslides that can destroy shelters and displace refugees again. Reducing the risk of flooding and landslides has been at the core of the protection response mobilized by UNHCR and partners since the onset of the crisis.

250,000

Refugees affected by landslides, floods and storms between January 2018 and December 2020

Integrated nature-based solutions

Though often overlooked in the emergency sector, ecosystem restoration proves to be a powerful tool to protect refugee and host communities, and enhance social cohesion. Nature based solutions provide the means to **protect, sustainably manage, and restore ecosystems while simultaneously providing human well-being and biodiversity benefits.** In Cox's Bazar, nature-based biological soil stabilization techniques reduce soil erosion, which reduces landslide and flash flood risk, while the 'Asian palm tree' can replace mechanical and chemical-based lightening arresters, thereby reducing the impact of a lightning strike on people and infrastructure. Furthermore, plant-based wastewater treatment promotes aquatic life regeneration and reduces pollution levels.

The provision of smokeless, non-wood fuel compliments reforestation activities and together contribute to halting deforestation, mitigating disaster risk, strengthening biodiversity and sequestering carbon emissions. The solarization of communal buildings and refugee shelters, as well as the use of pressure cookers for fuel efficiency, reduce greenhouse gas emission and increase cost effectiveness. Environmental education and awareness raising activities complement such efforts, and **the operation engages with youth from both the host and refugee communities to maximize impact.**

Achievements

Degraded land restored with mixed vegetation	+1,100 Acres
Vegetation survival rate	80%
Expected reduction of fuel wood demand thanks to more efficient LPG use	-1.7 kg person/day Since October 2019
Women trained in pressure-cooker pre-pilot project	30

Before and after reforestation, land and river catchment restoration in Cox's Bazar. © UNHCR/Bangladesh

Partners

International Center for Conservation of Nature (IUCN) | Center for Natural Resource Studies (CNRS) | DRC | WFP | IOM