

JAMAICA

Land preservation measures to combat climate change pressures in Cockpit Country Watershed

Grantee: Bunkers Hill CDC

Type of organization: CBO

Number of participants: 2000

Location: Bunkers Hill, Trelawny, Jamaica

CBA Contribution: \$45,000 USD

Project Partners: Southern Trelawny Environmental Agency, Social Development Commission

Co-financing: \$45,000 USD

BACKGROUND

The Community-Based Adaptation Programme (CBA) is a five-year United Nations Development Programme (UNDP) global initiative funded by the Global Environmental Facility (GEF) within the Small Grants Programme (SGP) delivery mechanism. The UN Volunteers partners with UNDP and GEF/SGP to enhance community mobilization, recognize volunteers' contribution and ensure inclusive participation around the project, as well as to facilitate capacity building of partner NGOs and CBOs. In addition, funding is provided by the Government of Japan, the Government of Switzerland, and AusAID. The CBA's goal is to strengthen the resiliency of communities to address climate change impacts.

The CBA project "Land & Preservation Measures to Combat Climate Change Pressures in Cockpit Country's Martha Brae Watershed", reduces the vulnerability to climate change adverse impacts of the Bunkers Hill communities in the Cockpit Country area. One of Jamaica's last remaining wildernesses, this area consists of 50,000 acres of forest reserve, large tracks of crown lands, and some private land holdings. As an eco-region, the Cockpit Country area is of significant global importance because of its unique topography and its large quantity of endemic species. The Martha Brae watershed encompasses several residential communities, including Bunkers Hill, which has about 2,000 residents. Residents are mostly farmers, although some work on nearby commercial farms and in the cities of Falmouth and Montego Bay. The community utilizes the ecosystem of Cockpit Country and its services to maintain their livelihoods. Especially important are the local rivers, which provide domestic and irrigation water. Residents of Bunkers Hill are affected by frequent flooding which causes erosion and damages local croplands. Floods also destroy infrastructure, such as bridges and roads, preventing farmers from tending, harvesting, and transporting their crops.



An eroded riverbank in the Bunkers Hill community. Climate change is likely to increase the intensity of storms in the area, raising the risk of flash flooding, exacerbating existing erosion problems, and threatening the croplands and infrastructure the community depends

CLIMATE CHANGE RISKS

Climate change predictions for Jamaica, and the rest of the Caribbean, forecast increasing climate variability. Rainfall declines and stronger storms are expected. In the Cockpit Country, increases in rainfall intensity will heighten the risk of flooding, especially during the rainy seasons of April-May and September-October. Existing flash flood patterns already pose a significant threat to the community as river embankments erode and the stability of bridges is compromised. Exacerbation of flash flooding risks due to climate change would further threaten the viability of agriculture in the region by destroying crops, eroding lands, and spreading chemical contaminants.

PROJECT DESCRIPTION AND ADAPTATION MEASURES

The objective of the project is to stabilize and reinforce river bank slopes to protect against the loss of agricultural lands from the threat of climate change-driven increases in flood risks due to stronger hurricanes and higher-intensity rainfall. The project was developed through a participatory process involving all sectors of the Bunkers Hill community. The project aims to fortify community resources, such as croplands and bridges by making them increasingly resilient to flooding and erosion. The outputs of the project include:

- Reinforcing areas prone to erosion through the construction of “natural” stone barriers and other erosion control methods such as planting indigenous species
- Establishing culverts, to divert floodwaters away from bridges, and access-ways, to prevent erosion and slow the rate at which water rises
- Developing brochures and training videos on climate change risks
- Providing technical assistance and training to Bunkers Hill CDC and the general community so that they can successfully implement future projects



A farmer points out the usual high-water mark during flooding episodes. More intense flooding is a serious threat to key pieces of local infrastructure, such as this bridge, and could prevent farmers and workers from reaching their fields and jobs, disrupting local livelihoods.

The project helps community members better understand climate change and the associated risks and impacts. It also enhances the community's ability to undertake their own adaptation activities and influence local policymakers. Together, these activities will make the area more resilient to projected climate change impacts and decrease the vulnerability of the ecosystem and the community's livelihoods to climate variability.

FOCUS ON...

Global environmental benefit

The project will stabilize and reinforce river bank slopes with indigenous tree species to increase the resilience of farmlands against land degradation that is expected to increase due to climate change.

Community ownership and sustainability

The Bunkers Hill Community Development Council (CDC) has identified priority sites and brought together key stakeholders to determine the most pressing problems and brainstorm possible solutions. It will partner with several social and environmental agencies to implement and maintain the sustainability of the project.

Policy influence

As it emerges from the CBA Jamaica Country Programme Strategy, lessons learned from the implementation of the project will be scaled up at the national level, providing opportunities for incorporation into national adaptation and planning policies.

For more information about CBA or CBA projects visit: www.undp-adaptation.org/project/cba

Further information, lessons learned, and experiences gathered from climate change adaptation activities globally can be found at the Adaptation Learning Mechanism: www.adaptationlearning.net

