

POUNDS OF PREVENTION

- A Disaster Risk Reduction Story -

“Pounds of Prevention” is a series of short articles that illustrate how disaster risk reduction works and why it is important. Take a behind-the-scenes look at aid work in action, long before the disaster occurs. How is that possible? Read on!

FOCUS: HAITI

In Haiti’s capital Port-au-Prince, heavy downpours are a serious concern for many people due to landslides and floods exacerbated by widespread deforestation and soil erosion. Communities downstream from the Millet Ravine watershed in the southeastern area of the city are particularly vulnerable. Here, erosion has dramatically increased both the amount of water and soil and the speed with which they descend into populated areas below via ravines and small channels. The threat of damage from landslides and floods frequently forces residents to evacuate their homes.

As part of a range of programs to reduce disaster risks in Haiti, USAID, the International Organization for Migration, and a local community organization of farmers and livestock owners are working to break the cycle of flooding by rehabilitating the Millet Ravine watershed and helping downstream communities become less vulnerable to displacement during the rainy season.

USAID’s past work on soil conservation and ravine stabilization elsewhere in Haiti has provided a foundation for the new project based in Millet Ravine. As part of the project, USAID and its partners have trained community members to build small rock walls in the ravine bed—known as gully plugs—and plant vegetation to mitigate erosion, including non-invasive bamboo, fruit trees, grasses, and pineapple plants. Local farmers and livestock owners are working hard to maintain these improvements so that the benefits are long lasting.

The project also uses remote-sensing technology to create a digital elevation model, or 3-D representation, of Millet Ravine. The model is then combined with rainfall and other hydrometeorological information to study flood peaks and patterns to estimate the flood-reducing impact of the interventions. The Millet Ravine activity is the first USAID project to utilize such innovative data collection techniques for urban watershed analysis, and advances captured with these tools may help develop solutions for other flood-prone urban areas.

Although the project is in its initial stages, residents in the upper watershed are already seeing decreased water and debris flow, improved rainwater absorption, and a reduced number of landslides. Residents have also taken advantage of areas that were previously inaccessible due to erosion to plant gardens. Communities in both the upper and lower watershed have reported feeling more hopeful about a future with reduced risks associated with landslides and flooding.

Together with its partners, USAID is demonstrating the impact of investing in urban watershed rehabilitation. These efforts are making important strides towards protecting homes from landslides and floods, and thus preventing a heavy rainfall from becoming a disaster.



Erosion increases the disaster risks faced by communities living near ravines in Port-au-Prince.



This newly built gully plug helps slow the rate of water and debris flowing down Millet Ravine.



Ketlin Polinic is optimistic that disaster risk reduction activities in the Millet Ravine watershed will help protect her vegetable plot.

Photos from top to bottom: Sarah Ryman, Rachel Ingersoll, and Nina Minka, USAID.