

Nicaraguan agro-ecology projects restore farms and renew lives touched by Hurricane Mitch

In October of 1998, Hurricane Mitch roared across the Caribbean Sea and slammed into the countries of Nicaragua, Honduras and El Salvador. Winds up to 180 miles-per-hour ripped trees out of the ground and flattened buildings and homes all along the Caribbean coast.

But the damage inflicted by the high winds and storm surge on the coast was minimal compared to the devastation wreaked by torrential rains further inland. At the peak of the storm, rain fell at the rate of two feet per day. By the time the sun emerged from the clouds several days later, 11,000 were dead and a half

century of progress and infrastructure was completely washed away. Hurricane Mitch was the deadliest and most destructive storm to hit Central America in over 200 years.

In the days immediately following the hurricane, relief agencies from around the globe, including Lutheran World Relief, responded with much needed food and supplies. Not long after that, LWR began funding partner agencies as the long, but rarely noticed, rebuilding process began.

Today most of us barely remember the time when Mitch struck Central America. But LWR and its partners

are still working hard to restore communities back to normal as well as reducing their vulnerability to future disasters.

In January three members of the East Central Synod visited the Terrabona region of the Matagalpa Municipality in Nicaragua to view environmental projects organized by the Center for Theological Studies (locally known as CIEETS). Julia Aggen, the Rev. Paul F. Heykes and Rebecca Heykes were members of a 23 person contingent touring Nicaragua with LWR.

The mountainous Terrabona region they visited was particularly hard hit by Mitch. After years of deforestation and poor agricultural practices, the soil was unprotected when the torrential hurricane rains began to fall. In a matter of hours thousands of small farms on the hillsides were rendered useless as the soil washed away. Many fields were scoured down to bare rock.

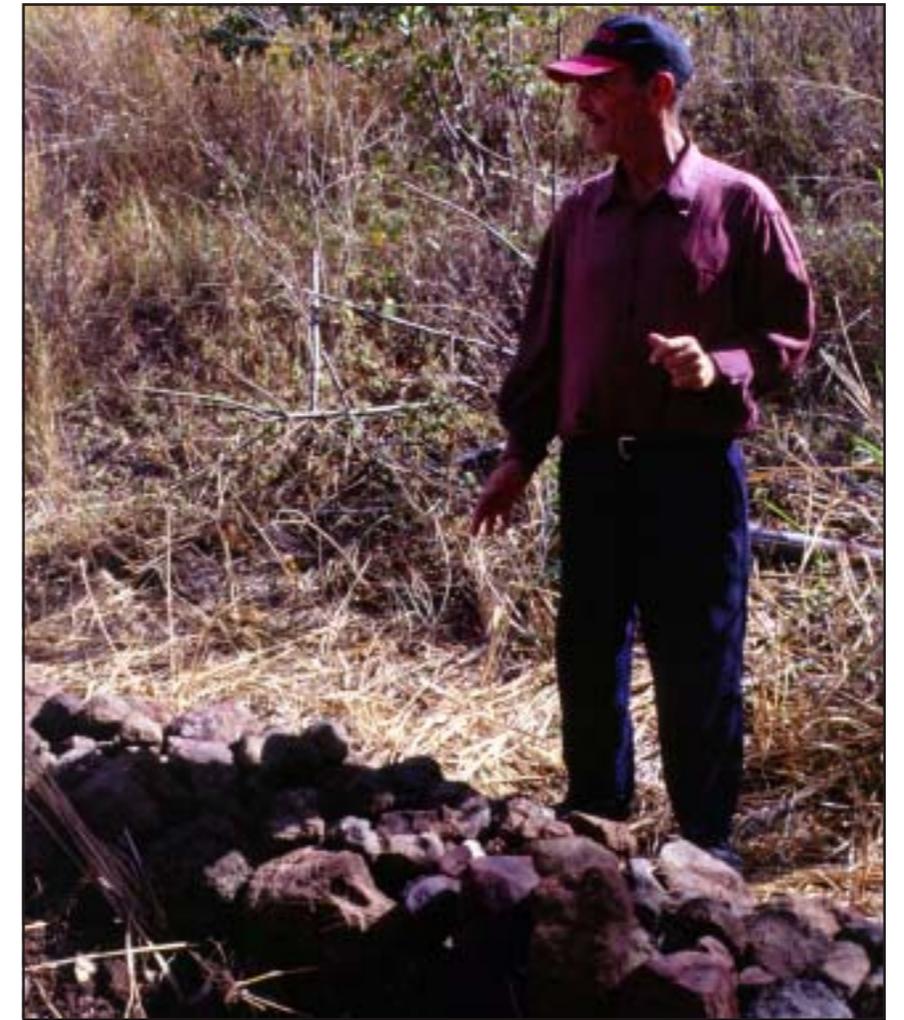
With the help of LWR grants totalling more than \$228,000, CIEETS taught the farmers of Terrabona soil and water conversation techniques that are helping to restore the land damaged by Mitch and reduce the impact of future natural disasters.

One simple and effective technique is to use the abundant rock to build small dikes in and around a farmer's field. The dikes slow down and direct the flow of rainwater runoff so that soil eroded from higher up-slope is collected in the field. Then, as the water continues its way down the mountain, it is diverted so that soil in the field is not washed away.

In the photos accompanying this article you can see the results of applying this technique. The farmers explained that after the rains of Mitch blew through, there was no topsoil left in their fields. Today, less than six years after learning to apply the techniques taught by CIEETS', they have built up a base of soil sufficient to once again grow corn, yuca, beans,



AFTER HURRICANE MITCH DUMPED up to two feet of rain a day on the farms of Terrabona, Nicaragua, virtually all the soil was washed away and rocks were all that remained. Today those same rocks are the backbone of projects to restore the soil and control future erosion. Arranged into small dikes, the rocks slow and divert runoff and trap soil washed down from higher up the mountain.



AN AGRICULTURAL EDUCATOR FROM CIEETS shows how corn stalks can be used to plumb dikes to the contour of the hillside. If the dikes are not perfectly level they will accelerate the flow of runoff and worsen the erosion they are designed to reduce.

squash and sorghum.

In addition to building dikes to control the flow of water, Terrabona farmers are also improving the quality of their soil with organic compost and decreasing erosion by replanting trees in the most vulnerable areas.

Together, all these efforts are contributing to greater food security for families and communities participating in CIEETS' programs funded by LWR. No one can prevent another hurricane from striking, but with well conceived plans, effective training, and community wide implementation today, the impact of another natural disaster tomorrow can be significantly lessened.

Story and photos by The Rev. Paul F. Heykes, a long time member of the LWR Speakers Bureau. Call him at 920-846-3453 to arrange for a presentation on the work of LWR in Nicaragua, East Africa, India and on the Coffee Project.