

Central America Devastation of Denuded Hillsides

by Diane Jukofsky, San Jose, Costa Rica

Hurricane Mitch, the erratic and unpredictable storm that walloped Guatemala, Honduras, El Salvador and Nicaragua at the end of October, was a horrific disaster and one that was only partly “natural.” Many conservationists now realize that the damage caused by the storm was their most pessimistic predictions come true.

There’s no question that the devastating effects of Hurricane Mitch, including thousands of lost lives and tens of thousands left homeless, were amplified by deforestation. Central America has lost two-thirds of its forests to logging, agriculture, fires and development. Most of the trees were downed in the last 30 years. Guatemala, Honduras, El Salvador and Nicaragua continue to lose more than 300,000 acres of forest in an average year.

But this year wasn’t average. It was one of the worst on record for fires. Farmers and ranchers in the region falsely believe that torching their fields improves the soil. The purposely set flames, frequently fanned by high winds, often rage out of control. A prolonged drought already had seared brush and forests, so by the time seasonal rains arrived in June, 3 million acres had burned in Central America, 2 million in Nicaragua alone.

Then came Mitch, with more than 100 hours of nearly nonstop, torrential rains. Trees sponge up rainfall, though landslides occur in thick forests. But few forests remained to catch the rain, and denuded hillsides were liquefied in the deluge.

More than 75% of Central America is on a slant. Hillsides shorn of trees or planted with corn, beans or coffee don’t stand a chance against so much hard rain. Water-carved rivers in loose soils carried more and more mud as the torrents raced downhill, like high-speed lava. Coursing rainfall ripped up crops and buried rooftops before sliding into streams and rivers that became rolling currents overnight. Rivers churned with torn-up tree trunks, buildings and debris that smashed through bridges and ripped up roads.

A dormant volcano in Nicaragua was a case in point. The volcano, called Casita, or “little house,” was home to subsistence farmers settled there by the government. They had cleared trees to plant crops on the volcano’s slopes, but their efforts to survive were doomed. After nearly a week of constant rain, an entire side of the volcano collapsed. An estimated 2,000 were buried alive in an avalanche of mud.

Even in flat, coastal areas, also largely deforested, the water caused unprecedented damage. With no trees to help hold back the water, riverbanks quickly overflowed, washing away entire villages. Virtually all the bananas that covered much of northern Honduras and northeastern Guatemala were lost. Also washed away were cattle, sugar cane and subsistence grains. Honduras lost an astounding 75% of its crops.

Shrimp was a principal casualty in Honduras' Gulf of Fonseca. Over the past decade, farmers cut down thousands of acres of mangroves, carving out high-yielding shrimp and other sea creatures. The irony is the mangroves are highly effective buffers against storms and flooding. Mitch wiped out virtually all Honduras' artificial shrimp ponds.

Since the news of the hurricane's effects, central Americans have received an outpouring of support from governments, nonprofit groups and ordinary citizens. Food, water, medicine and clothing are reaching the homeless, and cleanup has begun. But in a region prone to hurricanes, how can another, similar disaster be avoided?

First, hillsides and riverbanks must be reforested. Geographers and conservationists already have maps and can help identify vulnerable regions. Whether they are sowing for survival or sale, farmers should not be permitted to plant on steep hillsides or along riverbanks, nor should squatters be permitted to settle there.

The region's coastal lands, called flood plains for a reason, are perfect for growing bananas. If companies decide to replant in Honduras and Guatemala, they should be required to include buffer strips of trees along with bananas, a crop vital to the economies of both countries.

Honduras must now realize that further loss of mangroves will leave its citizens that much more vulnerable. Costa Rica is just now expanding its shrimp industry, which also threatens the country's remaining mangrove forests. Policymakers should note what happened to their northern neighbor -- and think twice.

Tens of thousands of people in the region have lost their homes. The easy way out for governments is to permit the homeless to invade forests in parks and indigenous reserves, where they will clear trees to build houses and plant crops. These people must build new lives, but allowing them to plant crops in the nutrient-poor soils of tropical forests is condemning them to a

continuing cycle of poverty. More deforestation also means less protection against the next killer hurricane.

The Central American governments have already met to discuss how they can work together to rebuild, and they have established a special commission to ensure cooperation and progress. Officials should also turn to conservationists for counsel about land use and recovery.

There's no reason the destruction left by Hurricane Mitch need happen again. And no excuse.