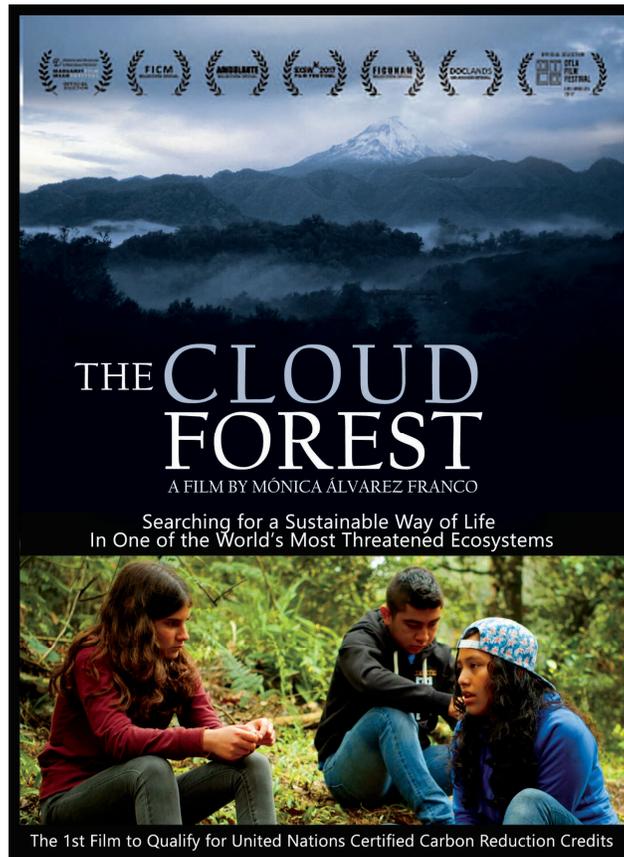




THE CLOUD FOREST (BOSQUE DE NIEBLA)



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The Cloud Forest

Sometimes, ordinary people can create extraordinary positive change. The people of a small community in Veracruz are the guardians of one of the ecosystems facing the most risk in the country: the cloud forest. Hoping to save their sacred and fog-laden land, they work for a simpler and sustainable life. Sixteen families redesign their needs, food, education and relationship with other people and with nature. They create an entirely self-sustaining and independent society. The Cloud Forest weaves this community's singular quest with gorgeous scenes of their endangered surroundings.

Huatusco, Mexico

Las Cañadas Cooperative is a small community located near the city of Huatusco, in the state of Veracruz, Mexico. Veracruz is in east central Mexico. It is relatively narrow in width, but stretches about 400 miles in length along the Gulf of Mexico. Veracruz also borders the Mexican states of Tamaulipas, Tabasco, Chiapas, Oaxaca, Puebla, Hidalgo, and San Luis Potosí. Its capital city is Xalapa.

Veracruz was named by Spanish explorer Hernán Cortés, who landed there in 1519, founding a city, which is also named Veracruz. His arrival marked the beginning of the Spanish conquest of this area. Under Spanish rule, large numbers of indigenous people died due to disease and enslavement. In the years following Spanish conquest, the land also suffered, with large areas of forest destroyed for farming, mining, and logging.

About Las Cañadas

The Las Cañadas Cooperative maintains a website, and according to that site, the community is comprised of 24 members and partners. The co-op controls a total of 306 hectares of land, the majority of which is forest area. Co-op members work together to meet their needs. They produce beans, corn, vegetables, fruits, eggs, tubers, milk, mushrooms, meat, firewood, and wood and bamboo for house building. Overall, the main goal of Las Cañadas is, "To lead a sustainable, happy and simple life."ⁱ Co-op members are also working to restore their land from deforestation.

Las Cañadas utilizes a farming system known as permaculture. While most conventional farmers plant fields containing only a single crop, farmers who practice permaculture cultivate a number of different plants together. They do this in an attempt to create an ecosystem that is self-sustaining. Permaculture systems are designed based on an observation of the way things work in natural ecosystems. One example of permaculture is the way that many indigenous people in Mexico plant a variety of plants such as maize, beans, pumpkin, and tomato together. By growing these different plants together, the farmers are able to take advantage of the many ways that the plants complement each other. For example, beans put nitrogen into the soil, which the maize needs in order to grow well. The maize benefits the beans by providing a structure for them to climb. By

using natural systems as a model, permaculture farmers can create farms that are more likely to be diverse and resilient, just as native ecosystems are.

The Cloud Forest

Las Cañadas is located in an area of cloud forest. A cloud forest—also known as montane rainforest—is covered in clouds most of the time, as its name suggests. The persistent cloud cover happens because warm air currents filled with moisture are carried up the side of a mountain. As the air cools, the water vapor in it cools and condenses into clouds. In addition to Central America, cloud forests are located in a number of other places including South America, Southeast Asia, and Africa. However, overall they comprise only a very small percentage of the world's forests. In Mexico, cloud forest is estimated to cover less than 1 percent of the land.ⁱⁱ

While they comprise only a tiny percentage of the world's total forest area, cloud forests are biodiverse, meaning that they have a large variety of different living organisms in them. Compared to other types of forest, cloud forests contain a much larger number of different plant and animal species. According to one researcher, Mexico's cloud forests support a greater concentration of plant and animal diversity than any other ecosystem in Mexico.ⁱⁱⁱ In addition, many of the living things found in cloud forests are unique to those forests and aren't found anywhere else in the world.

Cloud forests also play an important role in the water cycle. They take water from the atmosphere, and put it into streams. Researchers have estimated that in some dry locations, cloud forests supply up to 75 percent of stream water.^{iv}

A Threatened Ecosystem

While cloud forests are extremely valuable ecosystems, unfortunately, in Mexico and around the world they are currently threatened. Research shows that they are already started to disappear in recent years, and it is widely believed that this decline will continue in the future. One threat to the cloud forest is human activity such as clearing the land through logging or for other activities such as coffee plantations or grazing cattle. Climate change is another major threat. Researchers have found that as average temperatures rise, cloud forests are becoming warmer and drier, and they worry that eventually these already-rare ecosystems may disappear altogether. In a study published in 2019, researchers predict that in less than 45 years, 57 to 80 percent of cloud forests will shrink or dry.^v

Researchers worry that as cloud forests shrink, this decline will have significant harmful effects on the environment. Since cloud forests are important to the water cycle, a loss of cloud forests could mean the loss of water supplies for some communities. It is also believed that shrinking cloud forests will lead to local or even global extinctions of some species.

Glossary

air potatoes: Air potatoes are not actually potatoes. Instead, they belong to the yam family. They can be found growing on a vine and hanging into the air.

biodiverse: Biodiverse means having a variety of different living organisms. Cloud forests have a high level of biodiversity.

chaneques: Chaneques are mythical creatures in Mexico. They are believed to be magical little people who are guardians of nature.

Chaya: Chaya is a large, fast-growing plant that is indigenous to Mexico. It is cooked and eaten like spinach.

The Conquest: In 1519, Spanish explorer Hernán Cortés landed in Veracruz, beginning the Spanish conquest of this area.

co-op: A cooperative, or co-op, is an association that is owned and operated by its members, for their own benefit.

ecosystem: An ecosystem is made up all the living and non-living things in a particular area, and their interactions with one another.

fragmentation: Habitat fragmentation is when an area is fragmented into a number of smaller habitats that are isolated from one another. This is often harmful to the animals and plants that live there.

Huatusco: Huatusco is a city in the state of Veracruz in Mexico.

INEGI: Instituto Nacional de Estadística y Geografía, or the National Institute of Statistics, Geography and Informatics (INEGI) is responsible for generating statistical and geographical information about Mexico.

Longo- Mai: The Longo-Mai is a network of agricultural co-ops that originated in Europe. It is focused on self-sufficiency and self-administration.

lumberjack: A lumberjack is a person whose job it is to cut down trees.

permaculture: While most conventional farmers grow single crops, farmers who practice permaculture cultivate a number of different plants together in an attempt to create an ecosystem that is self-sustaining.

quercus insignis: Quercus insignis is a species of oak tree that is native to southern Mexico. It has large acorns.

Xalapa: Xalapa is the capital city of Mexico's state of Veracruz.

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