

The Restoration Process

Tree Planting

After a rainforest has been cut and used for cattle grazing, it serves as pasture for perhaps a half dozen years. After that, it often becomes a field of noxious weeds and brush and unsuitable for cattle. The restoration process requires the cutting of pathways through the brush so that tree species can be reintroduced and the revitalization initiated. To ensure survival, most of our planting occurs during the Fall rainy season to maximize growth.

This brush-covered field is now in the process of restoration. Lanes must be cut by machete so that sunlight can reach down and accelerate seedling growth. This also allows access to planting locations. A side effect of the conversion of forest land to pasture is that moisture levels drop. Once the rainy season ends, new trees must be watered by hand to ensure survival. Even so, these locally drier conditions will cause a loss of up to 10% of the seedlings because of unnaturally dry conditions.



These high school students are from the towns of San José de Peten and San Andres de Peten. They will carry the potted seedlings for up to several miles in milk cartons and transplant them into permanent locations. Those students who plant these trees develop an intimate and personal connection to these places that deepen their respect, connection, and protection of these rainforest areas.



Most of our tree planting takes place during the Fall rainy season. At this time, everything grows and saplings are readily transplanted. Here Jose is planting in the rain. This is usually a time of warm rain and high humidity. This is typically a warm, wet and sloppy season and sometimes the rain becomes torrential. Travel can be difficult as streams overflow and roads become impassable. Temperatures are usually in the 80's or warmer.

Holes have to be dug for planting new trees ahead of the arrival of the saplings and their planters. The size of saplings when they go into the ground is usually slightly more than a foot tall. Here Fred points to a newly planted tropical mahogany tree that over time will become a keystone species for a revitalized rainforest. This tree can be expected to sequester over a ton and half of carbon dioxide over its first thirty years. After that it continues to increase its annual rate of CO₂ sequestration.



After less than two years, the saplings in this plot are already over five to seven feet tall. Studies show tropical forests are remarkably resilient. Notice behind the planted area lies second growth forest. When planting takes place in proximity to remnants of the original forest, studies show that animals and insects become a key to the full regeneration of cleared areas. Typically, 80% of the botanical species in a mature tropical rainforest are bird and animal dispersed.