

With the cable system installed, the crew is using the portable sawmill in the field to extract well-dimensioned lumber for the first time.

Now that there is a sustainable way to extract hardwoods, EcoMadera can begin to harvest dimensional lumber suitable for making flooring. We have made a preliminary alliance with a German flooring manufacturer in Ecuador. Like EcoMadera, they are looking to develop products that utilize as large a percentage of the trees species in the forest as possible. We will continue to develop this partnership in the future as we start managing forests and producing wood products. With the US housing market still in a slump, it has been a good time to avoid entering the flooring market. However, EcoMadera has begun exploring the potential for entering the Chinese housing market, where a rapidly

growing middle class and the largest demographic shift in history to urbanization will create a dynamic market for hardwood flooring.

Sustainable forest management of primary forests

With the balsa business moving towards profitability, EcoMadera is preparing to return to its original conservation strategy, which is purchasing large blocks of native forest, in order to implement sustainable forest management, produce hardwood products that raise the value of the forest, and sell them to high value markets, thus creating a model for a widely disseminated alternative to the forces driving deforestation.

In 2008, EcoMadera purchased about 500 hectares, 70% of which was primary forest. The conservation goal over the next two years is to

purchase 10,000 hectares of native forestland and to initiate a program of sustainable forest management. EcoMadera's strategy is to establish a new kind of community forest, one owned by both the local community and outside investors, and managed in partnership with professional foresters and community stakeholders. A major focus of the Pinchot Institute's Ecuador program into the future will be on developing the forest management and investment strategies to make it possible to purchase and conserve this quantity of threatened forestland. There are many pieces to integrate in order to make this possible. ■



Connecting Human Health and Forest Conservation in the Rio Verde Canandé Watershed

Ariel Pinchot

The Andean lowland forest of the Rio Verde Canandé watershed in northern Ecuador is home to three thousand people who have relied largely on timber harvesting and conversion of forest to pastureland for their livelihood. This places pressure on the forests and on the diversity of species in the watershed. EcoMadera LLC, in partnership with the Pinchot Institute, has been working to alleviate these pressures on the forest, by addressing its root cause—chronic rural poverty.

Rural poverty has long been a driving force for deforestation worldwide. In the Rio Verde Canandé

watershed, the forest serves as a kind of health insurance for its residents. When an individual becomes sick or suffers an accident, the forest resources are often harvested in order to pay for medical care. USAID has also long recognized that the health of the surrounding forests is strongly linked to the health of individuals in rural communities. A community that has no access to health care finds it difficult to break out of the cycle of poverty that keeps individuals from planning long-term for its forest resources. A local primary school teacher reported that students in Cristobal Colon, the largest village in the watershed, miss a significant num-

ber of school days due to illness, thus impeding their ability to advance academically. Sickness often prevents employed individuals from going to work. This problematic convergence of factors significantly increases the pressure on forest resources.

In 2007, two young volunteers for EcoMadera, Ariel Pinchot and Julia Przedvorski, recognizing the link between lack of health care facilities and poverty, conducted a comprehensive assessment of both the health conditions within the community and the healthcare resources available to the community. The results revealed a harrowing picture of poor health in

the region and a great need for trained medical personnel and medical supplies. For example, there is a high prevalence of vector-borne tropical diseases (such as malaria and typhoid fever), water-borne parasitic diseases (due to unsafe water sources and a lack of knowledge about purification methods), high child mortality rates, and malnutrition. Unsafe working conditions result in many injuries, including lacerations and loss of limbs due to machete and chainsaw accidents, as well as poisonings from pesticides used in the nearby palm oil plantations. When sick or injured, families contend with a number of geographical, structural, and economic barriers to obtaining care.

At the time of the assessment, there was no health care facility within the Rio Canandé watershed. The closest one was in La Te, at least 8 miles away. Those seeking medical attention had to travel on dirt roads, usually by bus. For those living on isolated farms or in one of the smaller villages deeper into the watershed, the journey also included as much as a ten-hour hike just to reach the road. Once at a health facility, sick or injured individuals frequently received inadequate care due to staffing shortages and lack of adequate training. Though care was often provided at no cost, supplies such as syringes and gloves had to be purchased by the patient, which presented another financial barrier.

It was apparent from the assessment that the single most effective way to improve the health conditions for the residents of the Rio Verde Canandé watershed would be to establish a health center in the village of Cristobal Colon. Thus, in 2008, EcoMadera and community leaders, in partnership with the Pinchot Institute for Conservation, pledged to establish such a health center. A Community Health Committee was formed, consisting of the Ariel Pinchot and Julia Przedvorski, Molly O'Meara, a Peace Corps volunteer in

Cristobal Colon, and Pinchot Institute Board members, Robert Hicks George Bohlinger, and John Austin. Since that time, the group has devoted itself to raising money to build a health facility and to bringing medical supplies and personnel to Cristobal Colon.

The Committee developed a three-phase strategy for the establishment of the health center. The first phase was the creation of a safe, efficient, and sanitary facility in which to house the health center. The community of Cristobal Colon designated a previously erected building for this purpose. At the time, it was an unfinished structure, lacking floors, windows, plumbing, and electricity. With financial support from Pinchot Institute Board Members, the Committee was able to purchase materials and hire the services of a skilled contractor to complete the facility. As an in-kind contribution, volunteers from the community provided all of the unskilled labor. The health center facility was completed in the fall of 2009, meeting the standards set forth by the Ecuadorian Ministry of Health.

The second phase was to secure medical staff for the health center. At the initiation of this phase, there were no healthcare professionals in the entire watershed. To address this shortage, the health committee and EcoMadera negotiated with the Ecuadorian Ministry of Health, and with financial support from donors in the United States, the community of Cristobal Colon was able to send one of its residents to receive training as a primary care nurse. More recently, the Ministry of Health has pledged to assign a part-time medical resident to provide basic primary care services such as prevention, diagnosis, and treatment to the community. Thus, through government sources and with outside support, the health center will be permanently staffed with trained medical professionals.

The project is currently nearing completion of the third phase: furnishing and equipping the health center. With support from Goodwill of Virginia and the Rotary Club, in-kind donations of medical equipment and furniture have been collected from medical centers throughout the United States. A 20-foot container is currently being readied for shipment to Ecuador. Once the container has arrived in Cristobal Colon, this final phase of the project will be completed and the health center can begin providing primary care services to the over 3,000 residents in the Rio Verde Canandé watershed.

Health is a basic human right and a goal unto itself. However good health is also vital from a systemic perspective, without which poverty alleviation and natural resource conservation cannot occur. Healthy families and healthy forests are intimately connected, and one cannot hope to achieve either without addressing poor health conditions and the degradation of natural resources concurrently. 

Ariel Pinchot and Julia Przedvorski work in collaboration with EcoMadera, the Pinchot Institute for Conservation, and the community leaders of the Rio Verde Canandé watershed. In addition to conducting the initial research on the health status and needs of the community, they continue to manage the planning, development and implementation of the health improvement initiative.

