

People in the Forest: Rainforest Conservation Fund's way to conserve forests

By RCF Board member Dr. Christopher Miller

A few years ago I started bringing college students to the Tahuayo River to teach them about tropical ecology and conservation. Many of the students were already familiar with some basic ecological concepts, but did not know how complex things are in a place like the Peruvian Amazon. Before the trip, I asked them: what should we do about deforestation? "We ought to just tell Peru (or other tropical nations) to stop burning down their forests." Another suggestion: "Can't they just protect it and keep people away from the forest?" And the more expensive but sure-fire approach: "just buy up rainforest. The U.S. can afford [sic] it" To one degree or another, conservation groups and governments have done this, but these approaches have their problems.



The Rainforest Conservation Fund (RCF) does not approach the issue of conservation in this manner. There are three features to the approach RCF takes: 1. The need to conserve tropical forests requires supporting the people who live in these forests; 2. These people can teach us a great deal about sustainability and conservation; and, 3. In turn, we can teach local people about conservation as both an ethic and a science. On these last two points, RCF is in a unique position.

Supporting Local People in Forest Conservation

"What was the most amazing thing about the trip?" I asked my students. I expected answers such as seeing wildlife, learning about medicinal plants, going fishing, or boating on the largest river on the planet, The Amazon. The unanimous answer was "the people." Forest residents were described as 'amazing', 'very knowledgeable' and 'extremely skillful.' To successfully conduct the field course, we depended on local guides for getting us through the forest, finding specific types of trees, help with considering research problems, and a whole host of other logistic problems that arise during a field class. However, my students recognized that the people in the forest need support in many ways if they want to preserve the forest. Every time I bring students and others to the Tahuayo region, people who travel to the The Amazon understand that we must support forest residents in their effort to conserve the forest.

On one extreme, removal of people from the forest would be one approach to conserve forest; on the other hand, some development scenarios involving human populations are not sustainable e.g. Brazil and Indonesia's transmigration of thousands of people from developed areas to the forest. However, people remain an important element of the forest landscape in Amazonia and elsewhere in the tropics and can flourish sustainably in the rainforest environment. If local forest people were not in the Tahuayo, we would lose the real experts and a very valuable ally. Timber companies, oil exploration and exploitation and road building are the real enemies in the region (pics).



We need to support local people as stewards of the forest and entrusting them to continue to live in the forest by extracting resources in a sustainable manner. We can help provide education, health care and medical supplies, equipment and supplies for sustainable harvesting projects, and information on forest resources (pics). They can in turn teach us about the rainforest environment, which we depend upon for so many ecosystem services, especially climate regulation (pic).



What We Can Learn from Forest People

Some of my students regarded the culture of forest people as something that should remain unchanged and in a 'pristine' state. The people who live on the Tahuayo are not members of some primitive tribe with some mysterious knowledge. They are however very adaptable and smart in the ways they survive in the forest. I remember a few years ago, a local fellow named Luis had a bad case of the flu and I gave him some ibuprofen to combat his malaise. A few hours later and feeling much better, he was filled with gratitude: "White people sure have good medicine. They are very smart." I reminded him that many of these medicines have a basis in medicinal plants from tropical forests and indigenous and forest peoples introduced these to Europeans. One of these plants made the colonization of South America and many tropical areas possible: the Cinchona tree (*Cinchona* spp.) from which we derived quinine (picture). Quinine was the best drug against the world's worst disease, malaria, which ravaged white settlers and native people alike around the globe. Early

missionaries learned of the drug's usefulness from indigenous people, who were the ancestor's of my friend Luis. The bark of Cinchona is still used today to combat malaria.



The other point I made to Luis was that people from the United States have good medicine and yes we can be smart, but local forest people in the Tahuayo are very observant, resourceful, use their environment in very clever and creative ways, and understand the patterns and processes in their world, the rainforest. Most of my neighbors and people in my community in contrast are wasteful, dependent on technology and high levels of fossil fuel use, don't know much about their natural environment, and are not very self-reliant. Take the roof of my house: while it is relatively inexpensive, and will last 20 or more years, the materials are made of petroleum products that are destined for a landfill. Furthermore, I have no idea where the materials come from for the roof and I don't know how to put a roof on my house. In contrast, the people of the Tahuayo collect forest materials (mostly palm leaves) for their roofs, have a very good idea where their resources come from, and they can do all the work themselves (pics).





A few years ago, I followed one of these guys into the forest to collect irapáy palm (*Lepidocaryum tenue*) for roof thatching (pics). He did everything: he collected the materials for the roof, he weaved the thatch, and he put the roof on his house. And he did this by harvesting the small irapáy palm without really damaging the plants. He carefully selected only a few leaves from each plant and was attentive to not cut the newest leaf. Eventually, his roof will become leaf compost rotting in the forest in contrast to my landfill.

I'm not suggesting that I can put a palm thatch roof on my home in the U.S., but I can learn how to be more resourceful, be more knowledgeable of my resource use, and connected to the natural world. This manner of thinking is important if people in developed nations are to understand sustainability. Sustainable living is not simply employing the correct technology in time and space. It also asks us to consider and understand the natural world from which we derive all of our resources.

RCF's Role in the Ethics of Environmental Conservation While we can learn a lot about sustainable living from forest people, they can learn from us, as well. And this is where RCF comes in. Forest people, like people the world over, can over-harvest resources. Most of the people of the Tahuayo (pics) have adopted a conservation effort thanks in part to RCF's presence in the area. They understand the basics of the principles that lie behind a conservation ethic better than most people in Western countries. They comprehend that forest resources are finite and that negative impacts on the environment can have harmful consequences for their livelihoods. RCF has always emphasized the importance of the conservation of resources.

Before the arrival of RCF in the Tahuayo, widespread hunting and resource extraction was quickly depleting natural resources in the area. Now the people understand conservation is a much better approach in the long run. Sometimes when I talk to people on the Tahuayo, they speak as if they are 'reformed hunters' admitting they used to hunt game to sell in nearby cities. The only problem is, these people do need a source of cash. Again, RCF is helping provide people with a means to earn a source of income in a sustainable manner.

RCF's Role in the Science of Conservation So RCF has helped instill a conservation ethic, but what about more pragmatic contributions? First, we bring scientific expertise to the people of the Tahuayo. While forest people can intuitively understand the notion of over-harvesting forest resources and conversely sustainability, they do not necessarily have the tools to help them accurately determine whether or not they are conserving their

resources. Furthermore, scientists like Drs. James Penn and Michael Gilmore, and myself can bring scientific information and ideas to them. One concept that is common to both scientists and forest people is that they like trying out different ideas. In science, we call this ‘experimentation.’ Folks on the Tahuayo like most well-adapted people see it as part of what they do. RCF’s well-known ‘Aguaje Project’ was an early experiment that continues to provide income to forest residents, but like all experiments will need some tweaking to get better results, that is, greater fruit yields.

For example, several years ago, forest people on the Tahuayo starting started making and selling baskets, bracelets, and other products to tourists using fibers from the chambira palm (*Astrocaryum chambira*) (pics). There is a correct way to harvest the spine-covered chambira and a wrong way to collect the material, which can result in the loss of the plants in the local environment (and nasty injuries if the collector is not careful). Within a few short years, chambira in some areas was in short supply due to improper harvesting or complete destruction of this resource.



RCF is at the forefront of helping the proper harvest and cultivation of chambira. We have provided local villagers with equipment to help in the sustainable harvest and are conducting forest and garden inventories to help gauge the overall status of chambira. As a conservation organization, we hope to help locals broaden their markets for the product; as a research organization, we will continue to help survey forest resources to ensure a sustainable harvest. This is a perfect example of conservation of resources by sustainable harvest. Villagers in the area around

the Tamshiyacu-Tahuayo reserve indicated there were sufficient amounts of chambira plants (pics) and indeed many of them planted these palms on their own initiatives in their gardens.

Why RCF is unique Many environmental conservation organizations believe in conservation as an ethic and practice conservation in a scientific manner. What makes RCF unique? How do we stand out? Well, for starters nearly 100% of the money we raise goes to Peru and hopefully soon a few other places around the globe where rainforests are threatened by unsustainable development. RCF spends almost nothing on expensive mailers and this is unusual. I'm a member of other legitimate well-known conservation organizations and believe in their role, but I constantly receive mailers, expensive flyers and brochures, phone calls, and magazines, which can be educational, but the money is spent in this country. RCF sends over 96% of its budget to Peru. There, RCF hires and equips people who help plant trees, provide medical care, and scientific expertise to villagers. We also provide material aid to the villagers so they can protect their traditional lands and educate their children, among other things. RCF folks in Peru know all about the rainforest environment and how to conserve it, because they live there! None of the RCF people in the United States receive a penny of salary: we are all volunteers. For example, I receive my paycheck from a university.

RCF also is more effective because our board members have combined over 80 years of working in the rainforest environment. Personally, I have worked in Brazil, Ecuador and now Peru since the late 1980's. I wanted to be a board member of RCF because they were more efficient, truly grass-roots, and working in an area that is extremely biodiverse and has local people who value that diversity, and the rainforest environment.

By supporting RCF, you are supporting grass-roots conservation, the people who live in the forest, and helping to protect the forest. Developed countries have learned and benefitted a great deal by extracting resources from these countries and we will continue to benefit from the conservation of tropical forests. Many people don't know it or simply assume the benefits of tropical forests (e.g. climate regulation, medicines, food crops), but we must continue to support the conservation of these forests. The best way to support the conservation of these forests is to continue to instill a conservation ethic and help forest people conduct scientific research. RCF is uniquely positioned to offer support to people by providing the scientific skills and equipment necessary to for the sustainable use of resources.

Chris Miller February 2010