

From Research to Reality:

Exploring the Tensions between Environmentalism's Moral Religion and Rural Agricultural Poverty in the Ecuadorian Amazon

by Catherine Schloegel, MEd 2006

Introduction

The hum of a chainsaw punctuated the otherwise melodic cacophony of sounds deep within the Ecuadorian rain forest. Ducking underneath pendulant cacao branches, I walked through the forest seeking the source of the chainsaw's drone. At the back of a cacao orchard I saw three stumps. Sawdust littered the pathway and I watched as a sinewy man with a chainsaw carved the trunks into thin 2 inch by 10 inch boards.

I had arrived in Ecuador's rain forest nearly two months before to investigate locally-devised sustainable alternatives to deforestation and mineral exploitation. For a total of three months, I worked alongside members of the Kallari Association, a group comprised of indigenous Kichwa and *colono*, or smallholder farmer, communities in Ecuador's Napo Province (Figure 1). Kallari's goal is to identify direct international markets for the sale of products—chocolate beans and handicrafts—produced locally by its members. Direct access to international markets allows Kallari to pay higher prices to its members than the prevailing regional prices offered by middlemen. By some estimates, members of Kallari are likely to earn nearly \$250 more per year than their non-participating neighbors.¹

Catherine Schloegel, originally from Boulder, Colorado, has worked as an environmental educator in state, national, and international parks. She completed a bachelor's in Geography at Vassar College in 2000. Upon graduation she hopes to pursue further work in the field of community-based conservation in Latin America.

In one community I discovered that, despite the presence of alternatives, some Kichwa families, nevertheless, continue to harvest timber. Timber sales provide pocket cash throughout all seasons of the year, not only during seasons of peak harvest; however, timber removal can cause changes in forest microhabitat affecting subsistence food production and decreasing forest biological diversity. Moreover, harvesting a mature tree removes it from the base resource pool for several decades. Those who choose to harvest timber, therefore, are choosing short-term benefits at the cost of long-term sustainability.

As a student of environmental anthropology, I sought to investigate decision-making processes within Kichwa households. After two months of work alongside members of the association, I struggled to comprehend why members of one community continued to harvest timber trees, instead of focusing production on cocoa and handicrafts, which are more sustainable livelihood options. As an outsider, I used a familiar cultural ideology of trade-offs and alternatives to understand Ecuador's complex social and environmental landscape. I found that unlike North American conservationist paradigms, Kichwa choices are not mutually exclusive. Instead, subsistence and market-based livelihood strategies vacillate upon a continuum of decisions determined by ecological limits and shaped by social necessity. Upon first impression, the Kichwa willingly engage in "conflicting" activities. While a household might choose to harvest organic cocoa, maintaining a complex agroforestry system within its farm, it might also choose to over-extract valuable timber species, in essence, trading long-

Figure 1. Map of Ecuador by Stephen Holland



term necessity for short-term necessity. To them, these activities are not contradictory; rather, they are complementary and requisite for survival.

Within this article, I seek to examine the logic underlying Kichwa economic and ecological decision-making. I will examine how Kallari's sustainable development choices affect Kichwa market-based choices. Using this discussion as a foundation, I will explore how my own perspectives on conservation and development paradigms were limited in terms of visualizing types of activities that might be understood as sustainable. I will end by posing a critical question to environmental researchers to support the employment of a new paradigm to present complex realities.

The Kichwa: Amazonian Farmers and Forest Stewards

For most outsiders it is difficult to differentiate a traditional Kichwa farm in Ecuador's rain forest from the surrounding verdant tropical landscape. In Ecuador's Napo Province, subtle

variations of green bathe the profusion of vines, trees, bushes, and shrubs that form patches of primary and secondary rain forest. In comparison with the tidy rows of Iowa corn on a North American farm, a typical Kichwa farm appears chaotic—a mixture of staple food crops including cassava, peanuts, beans, corn, and plantains, as well as a variety of fruit, hardwood timber, and firewood species are planted underneath the overhanging forest canopy. For the Kichwa, a farm produces subsistence crops for family consumption in addition to serving as a savings account stocked with mature hardwood trees.

The Kichwa's ancestors have lived in the rain forest for hundreds of years, farming and hunting. Most Kichwa today are bilingual, speaking Kichwa as well as Spanish. Within Ecuador, the Kichwa number over 3,070,000 individuals (Wibbelsman 2003). The majority of Ecuador's Kichwa live in the sierra, along the steep Andean backbone that runs down the length of South America. Approximately 70,000 Kichwa live in the rain forest (Wibbelsman 2003).

Making Trade Fair: The Kallari Association

The indigenous-run Kallari Association consists of 22 communities that include the Kichwa and *colonos* and represents 1,700 individuals who reside in the Napo Province of Ecuador. The members of the association are smallholders who typically own less than 30 hectares of land. Generally, their landholdings consist of a mixture of primary forest and active farms.² The Association's primary objective is to provide members with fair prices for locally produced chocolate beans and handmade crafts. Kallari's overarching goal is to provide its members with sustainable livelihood choices.

During the 2005 cacao season spanning from late May through early August,³ Kallari purchased 126,300 lbs of fresh cacao beans from participating members. Each member harvests ripe cacao pods from his or her trees every two to three weeks during the season (see photos below). Numerous factors affect the amount of cacao harvested including land quality,⁴ extent of total land holdings, age of cacao trees, and degree of tree and field maintenance. Reported bi-monthly harvests of dry beans from individual farms varied from one pound up to

600 pounds. In addition to buying fresh cacao beans, the Kallari Association also purchases handmade jewelry and crafts from participating communities one or two times per year.⁵

While cacao and jewelry production have long been a feature of the Kichwa market-based production, unscrupulous middlemen have taken advantage of the small profit margin, leaving local Kichwa with little more than pennies for their labor. In contrast to these arrangements, Kallari directly markets cacao and handmade jewelry to both domestic and international outlets, passing on the profits to local association members. Middlemen pay one dollar per strand for jewelry, be it a bracelet or a necklace, and typically sell them in regional markets in Tena, Ecuador. Kallari, in contrast, pays members anywhere from three to twelve dollars per strand, based on quality, and sells most of the jewelry directly to markets in the United States or Europe. The same direct marketing of chocolate allows Kallari to pay locals a much higher price than middlemen. Prior to Kallari's entrance into the market, middlemen bought dry cacao beans for 15 to 20 cents per pound. During the summer of 2005, Kallari paid members 78 cents per pound of dried beans. In response to Kallari's cacao prices, middlemen purchased cacao at 40



The photograph on the left is a ripe cacao pod, ready for harvest. On the right is a picture of the fleshy interior of a cacao pod
Photograph on left by C. Schloegel, 2005; photograph on right by N. Cooper, 2005

to 50 cents per pound during the months of May through August 2005.

Trade-offs? Timber Production and Cacao Production

In three communities located in the Upper Arajuno watershed, I interviewed a total of 43 households. Within a formal interview, 100% of respondents said they sell cacao and handmade jewelry. Of the 43 households, one respondent maintained a small-scale balsa tree plantation of approximately 40 trees. The other 42 respondents did not identify timber production as part of their livelihood strategies, although when questioned further, their answers reflected a different reality or a different understanding of “livelihood strategy.”

Unlike other Kallari communities, those in the Upper Arajuno are located at a greater distance from regional markets. I asked residents what market activities or wage labor they sought when they were unable to participate in regular and planned market activities (including the selling of cacao, jewelry, corn, or coffee). Nearly everyone said that in times of emergency, they sell timber.

The case of Jorge,⁶ one area resident, is instructive for it describes the reasons that one household chose to harvest and sell timber. In three days, Jorge harvested three small trees (from the rain forest), which yielded 46 boards. Each board had to be carried approximately a quarter of a mile to the riverbank, and floated downstream to the regional market. Most likely, Jorge earned between \$30 and \$40 dollars for his efforts, approximately five percent of his annual income.⁷ In an informal conversation, Jorge revealed that this money would be used to pay for his 16-year-old son’s school matriculation fee and to buy medicines for his elderly father. In addition to timber, Jorge grows cacao and several members of his family make handicrafts and jewelry for sale to Kallari. For people like Jorge, selling organic cocoa and handmade

jewelry provides a greater number of livelihood choices; nevertheless, timber extraction continues to provide an important income source.

A Question of Scale

Denuded hillsides in Ecuador’s rain forest are distinct for several reasons. They are almost always accessible by the roads that large forestry companies have built through previously standing rain forest. Secondly, although the market will only accept certain tree species, it is rare to see a hillside with any trees left standing. In large clear cuts, original landscapes are cleared; non-native grasses and cattle replace the once-rich biologically diverse forest ecosystem. Nevertheless, to most visitors these hillsides in the rain forest create a strange optical illusion—they are beautiful, green, and seemingly natural breaks in the thick forest canopy. Upon closer investigation, tree stumps between two and three feet tall litter these green pastures, serving as subtle reminders of the forest that was once there.

The picture of timber production on Kichwa farms varies greatly. As I watched the work of a single chainsaw cutting boards, a different picture emerged. The surrounding forest continues to be intact. No skid trails or log landings remain as legacies of timber harvesting, machines or roads carry out the boards. The missing three trees left a perceptible light gap filtering through the canopy and the surrounding vegetation readied to take advantage of it.

Rhetoric versus Reality

On the Kallari website maintained by a young Kichwa man, Kallari states that the association, “has proven to be a sustainable and consistent means for the Kichwa people to fulfill our basic family needs without logging our rain forests or selling...lands to farming, mining, or petroleum interests” (2005). Although Kallari members echo this rhetoric, it is not always reflected in their daily realities.

In this gray area between timber production and rural agricultural poverty, I puzzled over Kallari's statement. Anthropologist Anna Tsing, in her description of Dayak villagers of the Meratus mountain range in Indonesia, claims that, "we can make sense, too, of Meratus respect for these authoritative conservation and development demarcations, but as the rhetoric of leaders assuaging powerful outsiders, rather than as the practice of daily life" (2005: 175). She acknowledges that conservation and development vocabularies project crisp environmental lines onto non-linear rain forest landscapes. Kallari's webpage might best be understood as part of a strategy to assuage powerful outsiders who, like myself, have constructed a clear environmental line with logging on one side and conservation on the other. Among such audiences for this webpage are international funding agencies, including the United States Agency for International Development, the Canadian International Development Agency, and the German development agency, GTZ. Kallari's rhetoric makes Kichwa life readable to outsiders and places their actions into a comfortable and familiar paradigm of trade-offs and choices.

The practice of daily life and rural agricultural poverty defy such crisp boundaries and definitions. Poverty is too sterile a word to express the myriad of emotions, strategies, choices, trade-offs, and decisions that are necessary for survival. For the Kichwa who I came to know, poverty meant going to bed hungry; for Kichwa mothers it meant high infant mortality; for Kichwa families it meant that diarrhea could become a killer; for Kichwa villages it meant no formal education past sixth grade. Poverty meant simple things too. No shoes. No electricity. No cash. No bed. Poverty problematizes conservation rhetoric, making it nearly impossible for Kichwa people to comply with the trade-offs that conservationists all-too-frequently demand.

Conclusion: A Search for New Paradigms

Utilizing a limited frame by which to understand an association like Kallari delegitimizes the Kichwa's complex and seemingly contradictory market strategies. It fails to acknowledge small steps. Kallari might be best understood as one of those small steps. To the Kichwa, Kallari is more than chocolate or crafts; it represents a fundamental break from existing systems of exploitation. Middlemen are no longer the only ones who speak Ecuador's *lingua franca*, Spanish, and understand how to enter national and international markets. Today, 100% of the Kichwa under the age of thirty are bilingual. Of Kallari's 1,700 members, one of its first university-trained agronomists will graduate in May 2006; several more are set to follow.⁸

The Association's accomplishments are finely enmeshed in an uncomfortably gray area bridging conservation and development, as well as cacao production and timber extraction. These accomplishments challenge existing conservation and development paradigms. My initial conservation vocabulary simplified Ecuador's complex landscape, erasing scale and obfuscating hope. After three months, I found that small-scale timber production differs from the march of industry-led deforestation in scale, scope, and intensity. Should conservation equate with the promise to stop logging? Although pleasing to conservationists, such a defined line ignores rural agricultural realities.

Conservation in the tropics has become an enumeration of rights and wrongs—tapirs, monkeys, and buffer zones are right while logging, petroleum extraction, and human land use are wrong (Redford and Sanderson 2000; Schwartzman et al. 2000a; Schwartzman et al. 2000b; Terborgh 2000). However, a critical part of this equation is left out: that of people and poverty. Those who criticize local small-scale timber extraction in the tropics, a group I was

once part of, quite often come from places where the norm of daily trade-offs is made possible by the existence of choices and purchasing power. Why is it that we have asked those who are the most vulnerable and the least able to imagine a trade-off, to be the first ones to do so?

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Endnotes

- 1 In this region, the average incomes before Kallari was established ranged from \$500 to \$900 per year. Today incomes are \$750 to \$1,100 per year (Logback, pers. comm., December 2005).
- 2 Although most of the Kichwa have lived and farmed the same plot of land for generations, very few farmers have legal land title. Most Kichwa have usufruct rights to the land. A land title for an average 20 ha farm can cost between \$500 and \$600. Kichwa land is not communally used or managed. Clear landscape boundaries, informal fences, or impassible natural features demarcate individual "property".
- 3 The season for peak cacao production varies from year to year, as well as by location.
- 4 In general, people who lived on islands located in rivers reported a higher yield per pod and per tree than farmers with production on less fertile land.
- 5 In the past, the Kallari Association has bought jewelry one to two times per year, but this year due to an inventory overstock, they have not yet purchased any jewelry from members.
- 6 Pseudonyms are used to maintain anonymity.
- 7 See endnote 1 for a discussion of annual household income. Prices paid per board ranged from \$0.50 to \$8.00 depending on the width of the board and the type of wood. For those who do not own a chainsaw, their final earnings are much less.

- 8 Although several Kallari members have completed two-year university teaching degrees, fewer than five Kallari members have completed a full five-year university degree.

References

- Terborgh, J. 2000. The Fate of Tropical Forests: A Matter of Stewardship. *Conservation Biology* 14 (5): 1,358-1,361.
- Schwartzman, S., A. Moreira, and D. Nepstad. 2000a. Rethinking Tropical Forest Conservation: Perils in Parks. *Conservation Biology*. 14 (5): 1,351-1,357.
- Schwartzman, S., D. Nepstad, and A. Moreira. 2000b. Arguing Tropical Forest Conservation: People versus Parks. *Conservation Biology*. 14 (5): 1,370-1,374.
- Redford, K. H. and S. E. Sanderson. 2000. Extracting Humans from Nature. *Conservation Biology*. 14 (5): 1,362-1,364.
- Kallari Association website. <http://www.kallari.com> (accessed October 28, 2005).
- Tsing, A.L. 2005. *Friction: An Ethnography of Global Connection*. Princeton, NJ: Princeton University Press.
- Wibbelsman, M. 2003. General Information on Ecuador. Pp. 375-387 in *Millennial Ecuador: Critical Essays on Cultural Transformations and Social Dynamics*, edited by N.E. Whitten Jr. Iowa City, Iowa: University of Iowa Press.
- Whitten, N.E. Jr. 2003. *Millennial Ecuador: Critical Essays on Cultural Transformations and Social Dynamics*. University of Iowa Press, Iowa City, Iowa.