

“Sin Agua, Sin Vida”
An Ethnography of Community Landscape Perspectives
La Fortuna, Costa Rica

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ABSTRACT

This project is an analysis of local perspectives surrounding landscape and the management of natural resources in La Fortuna de San Carlos, Costa Rica. La Fortuna is a product of the conservation system and the increase of a tourism-based economy in Costa Rica, where socioeconomic development is increasing with an environmental conscience. Understanding the values and perceptions of the local population can help nearby Arenal National Park and other conservation institutions help the local community and better manage natural resources. This analysis looks for patterns in the interview responses of local participants about their personal practices with natural resources, perceptions of Arenal National Park, and changes in the community since the National Parks' establishment. Quantitative survey and qualitative quotes suggest that local people perceive their values of natural resources as different from the objectives of Arenal National Park. The local community is instead unified by environmental and economic solidarity, creating a unique perspective on their surrounding natural landscape. The park and community need more collaboration to strengthen their relationship and to better natural resource management in the area.

ABSTRACTO

Este proyecto es un análisis de las perspectivas locales sobre la naturaleza y la gestión de los recursos naturales en La Fortuna de San Carlos, Costa Rica. La Fortuna es un ejemplo de los efectos del sistema de conservación y crecimiento del sector turismo único en Costa Rica, donde el desarrollo está encarecimiento al lado del movimiento de conservación. Entendiendo la visión de las personas vinculadas al desarrollo de La Fortuna, con respeto a los recursos naturales que se protegen en el Parque Nacional Arenal, esta información puede ayudar al Parque Nacional Volcán Arenal y a otros institutos de conservación apoyan la comunidad local y mejoran el efecto de gestión. Este análisis busca patrones en respuestas de personas locales sobre sus prácticas con recursos naturales, percepciones del Parque Nacional Arenal, y cambios en la mentalidad de la comunidad. Gracias a las respuestas cuantitativas y las cuotas cualitativas para proporcionar contexto, el artículo sugiere que el parque y la comunidad necesitan más colaboración para mejorar la gestión de recursos naturales en la zona.

On my honor, I have neither given, nor received, any unauthorized aid on this honors thesis.

Honor Code Upheld

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Introduction

The balance between natural resource management and social needs is a contemporary worldwide challenge. La Fortuna de San Carlos, Costa Rica, is one such place that serves as valuable case study to highlight issues concerning environmental and cultural change. The beliefs, values, and identity of La Fortuna locals are embedded in their landscape. These human values can unite and motivate people to either participate or refuse from participating in the community. Through collaboration and commonality between different local environmental interest groups, communities can find perspectives to help find viable solutions to achieve a sustainable balance of resource management.

La Fortuna de San Carlos used to be a small town to the southwest of Arenal Volcano with an economy based on cattle ranching. In the past 50 years, the national policy for a push for land preservation and an ecotourism industry brought rapid changes to this town (Matarrita-Cascante et al. 2010; SINAC 2010). A wave of migrants from all

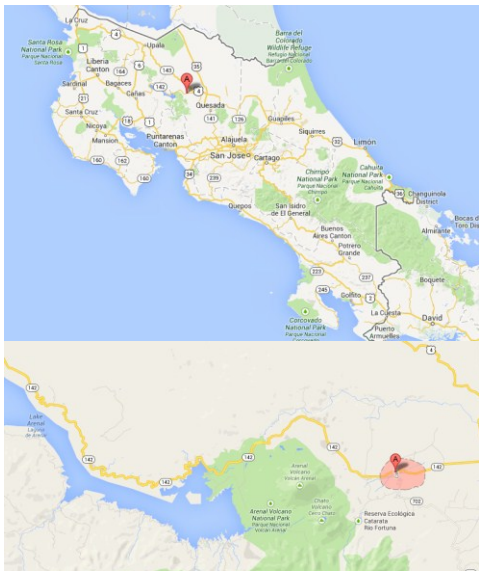


Figure 1 and 2:
Marker A shows location of La Fortuna, Costa Rica. Google: 2014.

over Costa Rica and the world have settled in La Fortuna, and the town is now economically dependent on tourism (Matarrita-Cascante et al. 2010). This field research project focuses on how the new and old inhabitants across generations and occupations view the La Fortuna landscape. Common identities to a landscape play a significant role among inhabitants of any location and serve as a strong factor in the establishment of community solidarity. The community solidarity in La Fortuna influences land management by

uniting the traditional local population and the new immigrants in their varying perceptions of the landscape. This type of community solidarity—locals and recent residents—has been a major goal of countries pursuing a national ecological agenda.

The increasing worldwide creation of federally preserved areas essentially displaces the local communities. As populations increase, there is less land for displaced communities to continue their way of life and traditional use of the land (Sánchez-Azofeifa et al. 2003). To solve the conflict of interest between federal and local resource management, previous research has indicated that community participation is a key to successful environment, social, and economic sustainability (Girod et al. 1998; Schelhas and Pfeffer 2005). There is no single correct blueprint for effective conservation because every place has a unique landscape, history, and culture that require an equally specialized system of resource management.

There is a strong belief that the collaboration of different local interest groups is crucial to establishing an effective ecologically balanced system, since they are the most familiar with their unique landscape and resources (Abel 2003; Ghai and Vivian 1992; West et al. 2010). Local people, despite the complex web of global influence, use traditional and local knowledge to define how they value their landscape. Beliefs and values associated with landscape vary by culture, social class, and experiences with the landscape. To attain successful collaboration between the community and outside interest groups, it is important that we must understand the way the local community identifies with their home landscape. Understanding and combining the outlooks of all groups in an area can neutralize conflicting perspectives (Ghai and Vivian 1992).

This research will begin with an historical account of land in La Fortuna based on written works and local oral histories. The second section will discuss the origins of the federally managed lands and ecotourism movement in La Fortuna. The third section focuses on a description of the current population in La Fortuna and its relationship to federally mandated land conservation policies. This section presents quantitative results from a survey and from interviews done in April, 2013 on how the local population perceives and connects differently to federally managed lands in La Fortuna. The fourth and fifth sections incorporate a critical ethnographic point of view with emphasis on local perceptions. Quotes, observations, and stories from community-based research describe the La Fortuna identity and connection to the natural landscape. The comments, thoughts, and personalities recorded in this section provide a window to the community of La Fortuna beyond the tourist's first impression and beyond the statistical survey results. The final section provides the results and recommendations for community participation in resource management in La Fortuna.

Cultural History and Cultural Landscape

La Fortuna and its surrounding landscape is tucked away on the eastern side of the Guanacaste mountain range that runs like a spine down the center of the country. The indigenous Guatuso people once called the rivers and dense jungle hills home. As the Spanish settled Central America, they were pushed back into the mountains. In the 1800's, Nicaraguan "huleros" roamed Arenal to capture and sell the Guatusos into slavery (Pichón et al. 1999; Valverde et al. 2011). By 1856, the Costa Rican government began to encourage people to colonize the unsettled land beyond the populated central valley. State campaigns for migration continued through 1955 to connect the Caribbean

to the Central valley to increase the raw material exports to England (Valverde et al. 2011). Costa Rican land management at the time focused on accelerated exploitation for the raw material trade. Families attracted by free land migrated out of the city and began to make a living off of the jungle's resources.

By 1915, La Fortuna was part of this effort to settle the hinterland. As a cattle ranching town of two families, the town remained isolated except for the expanding migrants in search of land for agriculture, ranching, and logging (Matarrita-Cascante et al. 2010). People were dedicated to the agricultural way of life, and made their living off of cattle, corn, beans, and hunting (Barrientos and Chaves 2008).

Locals generally know the history of La Fortuna well, either through recited history for tourists or the history they grew up with. Don Felix, about 50 years old, knows both. As a tour salesman and native of La Fortuna, he said that considers himself an amateur historian. When I asked how life has changed in La Fortuna, he launched into an oral history that began when La Fortuna was first settled in the mid-1900s:

The land is so expensive now. Ask your host family how cheap the land used to be. The free land was appealing to the migrants, but it was so difficult to produce and so difficult to market because if I wanted to sell a cow, I would have gone to Ciudad Quesada, 50 kilometers away, crossing rivers because there were no bridges with all those pigs and cows. So it was difficult, carrying corn and other products (Felix, Translated interview, 11 March 2013).

As more families migrated to La Fortuna through the 1940's and 50's, roads were established between the Tilarán-La Fortuna- Quesada regions of settlement. Arenal Volcano, a landmark believed to be a mountain peak that rose above the surrounding hills, defined the area. The community was rural and agriculturally based, known only through trade.

In 1968 Arenal Volcano erupted, burning three surrounding villages and killing 87 people (Arenal.net 2002). Twelve square kilometers west of Arenal Volcano were devastated, including the towns of Tabacón and Pueblo Nuevo (Barquero 2008). Volcanic ash affected the air in several towns as far west as Guanacaste (Barquero 2008). . Smaller-scale pyroclastic explosions occurred again in 1990 and 1992, and since then glowing lava trickles down the western flank most nights. Arenal Volcano was designated a zone of national interest, and rules and regulations began to monitor the area's natural resources. In Barquero's book (2008), there are pictures of the burnt jungle and families evacuating. The land changed, and the forest and soils today are different than they were 100 years ago due to volcanic chemicals.

Arenal's 1968 explosion brought immediate national attention to La Fortuna (Matarrita-Cascante et al. 2010). Scientists came in to monitor the volcano, and tourists came from all over the world to see the glowing lava flow at night. Arenal Volcano was designated an area of national interest, and rules and regulations began to monitor the area's natural resources. Europeans came and built hotels in view of the falling lava, and hired migrants who would work for cheap on the now expensive land. The mentality changed. Today, land management and the rapid growth of the ecotourism industry are the two characterizing factors of the La Fortuna landscape identity.

Sistema Nacional de Areas de Conservación (SINAC): Land Management Policies

Throughout the 1960's, the Costa Rican government began taking environmental precautions with forestry laws and regulations (Schelmas and Pfeffer 2005). Instead of exploiting resources through forestry and other raw material consumption, land management shifted to a more conservationist system. In 1969, the government passed

the Forestry Law to restrict deforestation (Vaughan and Rodriguez 1997). In the 1970's, a trend began to create National Parks and other preserved areas (Schelmas and Pfeffer 2005; Vaughan and Rodriguez 1997). Initially, Costa Rica's conservation system was modeled after the United States preservationist methods, with a centralized government management (Vaughan and Rodriguez 1997). Land was set aside and human influence was illegal within the park (SINAC 2010). This created competition over land use between local user groups as well as tension between the intentions of government agency in charge and the surrounding community's perspective of the land (Vaughan and Rodriguez 1997).

At the start of the shift to conservation, people in rural Costa Rica depended on natural resource extraction for their livelihood (Vaughan and Rodriguez 1997). The creation of a federally protected area essentially displaced the communities residing there. As populations increased, there was less land for displaced people to continue their way of life (Ghai and Vivian 1992; Sánchez-Azofeifa et al. 2003). This phenomenon is a pattern around the world with federal land protection in rural areas.

To pacify the clash of local and federal land value and use, previous research has unanimously indicated the importance of community involvement in national conservation (Sánchez-Azofeifa et al. 2003). Globally, a successful national park is able to balance the community and government needs with minimal negative economic impact, displacement, and the separation of culture and nature (West et al. 2006). Knowledge about the social process that leads to communal motivation and commitment to conservation is the next step in effective conservation (Giro et.al. 1998; Schelmas and Pfeffer 2005; West et.al. 2006).

Support for community involvement in Costa Rican National Parks comes from a case study on the establishment of Cahuita National Park in Limón, where a history of community-park administration tension existed (Giroto et al. 2008). The study found that similar to La Fortuna, people were essentially required to change their livelihood from farming to tourism to survive (Giroto et al. 2008). The individual income increased and the town grew exponentially in ten years. While the community outlook on the changes varied, the most pressing issue was that the community was kicked out of the land within the National Park, particularly with coastal fishing. The community eventually succeeded in establishing a co-management system of Cahuita, where the community cares directly for the park and reaps the benefits (Giroto et al. 2008). Although many people in the community still do not feel that the system is completely equal, the park is much more successful and community less hostile than without any community influence (Giroto et al.

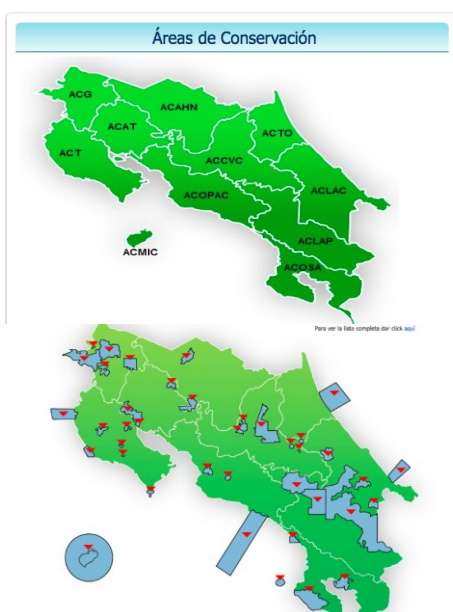


Figure 3: 11 areas of SINAC
<http://www.sinac.go.cr/AC/Paginas/default.aspx>

Figure 4: Specific protected areas under SINAC
<http://www.sinac.go.cr/AC/ASP/Paginas/default.aspx>

2008).

In 1989, Costa Rica reformed their land management system to make the conservation areas more effective and self-sufficient. The conservation system consolidated and began to evolve into the unique management system employed today, the Sistema Nacional de Areas de Conservación (SINAC) under the Ministerio de Recursos (Vaughan and Rodriguez 1997). In 1995, SINAC merged the forestry, wildlife, and wildlands agencies. With all of the land related agencies on the same

page, the system became more efficient. The country is divided into 11 areas of conservation by geography, ecology, and climate (figure 3) (SINAC 2010; Vaughan and Rodriguez 1997). Each area has its own protected areas that it manages (figure 4). In theory, the state takes care of financing and facilitation in each zone. Each zone is supposed to be self sufficient and managed by civil society (Barrientos and Chaves 2008; SINAC 2010). Concessions, management, more financing, and research is conducted by people within the zone (SINAC 2010; Vaughan and Rodriguez 1997). As long as the local community is invested in the care of the land, the system is flexible, efficient, and community based.

Research Design

A more personal, community level viewpoint of this system in action is necessary. This study collected several key informant opinions across a range of ages and occupations. Surveys and individual quotes provide that snapshot for how people view land management in La Fortuna. The results of this study represent a complex cultural model of values and beliefs around tourism, the natural environment, and the changes they have brought to La Fortuna. The perspectives showed a strong local community influence on land perspective, with an emphasis on water quality and education.

In March 2013, I conducted a survey in La Fortuna among local people who had an occupational connection to natural resources in San Carlos. The purpose of this survey data is to discern patterns in the values and belief based on these social groups (Wilson and Crawford 2008). Key respondents included farmers, guides, ecotourism, and conservation workers found through cooperatives, tourism offices, and participant suggestion. I asked 24 questions in person during individual interviews in an open-ended

way, so that participants could respond from their own experience (Whitehead 2005; Wilson and Crawford 2008). After analyzing the responses, there was no trend in data that suggested a predictable pattern in the participants’ values and beliefs compared to their occupation or years lived in La Fortuna.

Sixty (60) local key informants participated in the survey. While finding a perfect equilibrium of opinions and backgrounds is impossible in interview-based research, I have provided a background of the respondents to provide context to the following comparisons of survey results. The spectrum of collected results, although not perfectly balanced, seems to reflect the local population. Many are recent migrants in hospitality and tourism occupations mixed with the multi-generation cattle ranching families.

Of the 60 respondents, 42 (70%) were male and 18 (30%) were female. The average age of the informants was about 40 years old. The most common occupations were in hospitality, tourism, cattle ranching, and park guides, respectively. The average number of years the respondents had lived in La Fortuna was about 9 years (figure 5)¹. It

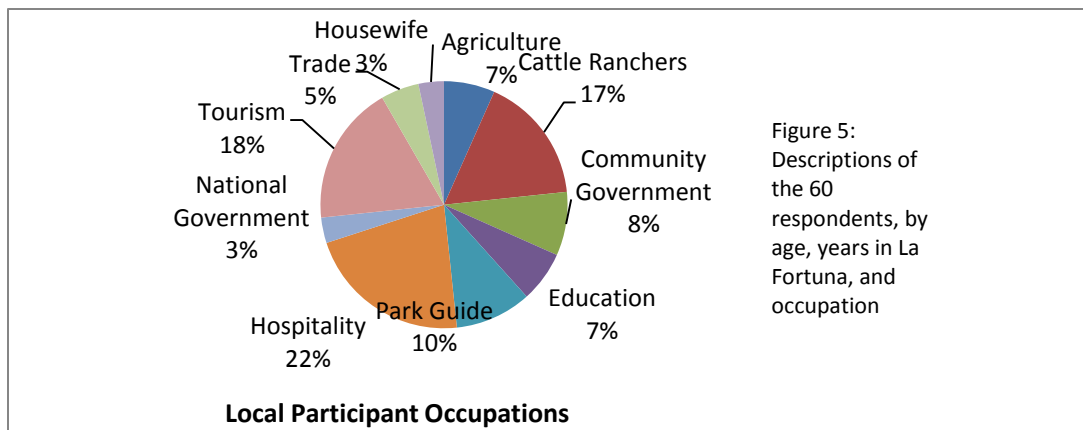
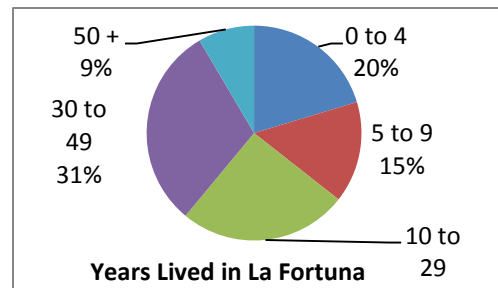
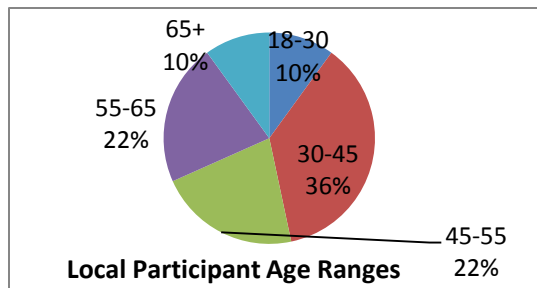


Figure 5: Descriptions of the 60 respondents, by age, years in La Fortuna, and occupation



is important to recognize that the residents who have lived in La Fortuna are less than 20 years have a perspective of La Fortuna only after the national park establishment in 1991. Those who have lived in La Fortuna for more than 45 years, on the other hand, have lived in La Fortuna since the 1968 explosion of Arenal Volcano and likewise have a unique perspective in this survey analysis.

The data depended on the community members' willingness to participate and provide honest information. My own presence as a researcher presents limitations, although I gave participants my contact information and a biography of myself. I also gave the participants anonymity in the final product. Because I am North American, the interviewees might have changed their vocabulary to match more global views on conservation instead of local dialogue (Schelhas and Pfeffer 2005). To solve this issue of objectivity, I gave more importance to descriptive questions asking why or how to prioritize the local voice of La Fortuna (Whitehead 2005).

While the results of a statistical survey analysis can represent the majority of sentiments in La Fortuna, there were no significant patterns by occupation or years lived in La Fortuna. The reason is because numbers do not take history, identity, or the respondents' individual experience into account (Counihan 2009). Qualitative research is important to provide context to the number value of statistics. Local people do not give much thought to the National Park, but why? Local people seem to value water quality, but why? I narrowed my results down to eight participants who seemed to open up about their lives and thoughts on the La Fortuna landscape. Between the responses of key informants and my own two months of observation in La Fortuna, I collected a more

tangible description of the community's perspective of their landscape. The impact comes from the story that is told.

The People: Key Informants

Seven individuals in different social sectors of La Fortuna provide the main ethnographic perspective of local land management throughout the research. Don Felix, who has already been introduced, is about 50 years old and currently promotes tours. Every day he sits in his booth of brochures for tourists with questions. The structure is out of town, a painted wooden shack on a moon-shaped plot of land. A billboard advertising a horseback tour is pounded into the dirt parking area, distracting the attention from the ranch behind it. When Don Felix not sitting there, he takes walks, photographs birds, and is a self-proclaimed historian. He is proud that he knows everyone and everything about La Fortuna. "Oh, you are staying with Don Limberth and Doña Karen? You know, that family was one of the first to move to La Fortuna. Good people. Tell them Don Felix down the road says hello," he said, accepting my interview.

Doña Fannia is a member of one of the long-standing cattle ranching families in La Fortuna. She has lived in La Fortuna for more than 50 years. Doña Fannia grew up in a household with eleven brothers and another sister. Her brothers now own the family ranch about 10 kilometers from the center of La Fortuna. She married an accountant from the city, and they built a house on the ranch. She works for the La Fortuna community in the schools, the orphanages, and the town's decision board. On hot days, Doña Fannia visits her family in the neighboring houses for coffee and to chat.

Don Rodolfo lives south of La Fortuna, where the volcano looks like a distant landmark. I met him at a roadside restaurant next to an arched iron ranch gate. Don

Rodalfo, the son of Carlos Vargas who began the small dairy farm 30 years ago, meets me there. Don Rodolfo is an expert in public relations, and runs the tourism branch recently added to the farm. Seven years ago, the farm added cheese to their dairy production. His brother runs the cheese factory, and they sell local cheeses to hotels and gift shops. Four years ago, he began the tourism component. The three cooperative sections of the farm run together and remain a family business. There are now about 20 employees in all sectors of the farm. Don Rodolfo is in charge of promoting and scheduling tours of the farm's environmentally conscious system.

Jhonny Calderon lives closer to the center of La Fortuna. He used to work as a river guide with the "Turrialba boys" from the Caribbean coast. They know him by his nickname "Flow," the guy who "goes with the flow." In those days, he was always good for a night out at the bar, falling off the stool with a drunken joke. He still speaks with an open friendliness that voids the polite "Don," similar to "Mr." in front of his name. Now that he owns a branch of an eco-friendly rafting company and has a wife, he has settled down. During the slower tourist seasons, he and his guides participate in "river cleanup" days, where guides and other volunteers collect the litter in local rivers.

Juan Diego Alfaro has been the head of Arenal Volcano National Park since November 2012. He lives on the outskirts of the National Park, and often deals with interviews from the media, tours, the safety of the park, and managing the 9 park employees. For information on the National Park, Alfaro and two tourist guides serve as the key informants. There are two kind of guides in La Fortuna. Aaron² is employed by government as a guide to manage the gates, the safety within the park, and give tours. This role requires a graduate degree in guiding, with emphasis on the local ecology and

tourism. Other guides are private. These guides work out of private tour companies, hotels, or for themselves. Jorge² is a guide of about 26 working out of a local guiding company that often takes groups to Arenal National Park.

Economic Growth: Tourism and the Environment

According to Alfaro, Arenal National Park and the community of La Fortuna have relationship based primarily on the tourism industry. Outside of tourism, the National Park is completely separated from the community. In the hype for tourism and economic advancement, the role of the National Park pales to social change. Local generational and occupational differences are more present in the resource management dialogue than the government's conservation program.

In La Fortuna and around the world, the growth of tourism brings economic development to rural areas, but challenges the existing culture (Abel 2003; Girot et al. 1999). There are more opportunities for work and education in rural communities, and the international cultural exchange induced a globalization movement (Alfaro, translated personal interview, 8 April 2013). La Fortuna as a community has fully invested in tourism because of the economic benefit (Hope et al. 2005). The tourism industry took off in Costa Rica during the 1990s, and has since controlled the socioeconomics of land use in La Fortuna. Many of the National Parks now cater to the international "ecotourists" coming to tour Costa Rica's biodiversity. Between the 1968 eruption and the nationwide eco-tourism boom, La Fortuna saw an influx of tourists and tourist-related businesses. In ten years, La Fortuna shifted from a small agricultural center to a large town economically dependent on the tourism industry (Hope et al. 2005). A new wave of migrants and international immigrants came to La Fortuna to start hotels, restaurants, and



Photo 2: La Fortuna's central park. The Catholic Church is located at the edge of the park with Arenal Volcano in the distance.



Photo 1: The main street in La Fortuna is often bust with traffic and pedestrians in the souvenir shops and restaurants.

guiding companies for the increasing number of tourists (Don Felix, translated personal interview, 11 March 2013). The center of La Fortuna has rapidly been built and shaped into a tourist-destination (Badilla and Pablo 2012; Williams 2011). Around La Fortuna, the land is still used for agriculture and a more rural lifestyle. Most of the farmers have turned their farms into a tourism destination or built small inns and hotels on their property to get a “slice of the cake,” as one respondent described. Huge companies from the U.S. and Europe invest for a slice of the cake too.

Locals say that in the past ten years, the public mentality shifted to a consumerist one (Badilla and Pablo 2012; Isla 2002). People are infatuated with the idea of individual prosperity and the potential for wealth in tourism. This sentiment is mirrored in increasingly consumerist cultures around the world (Ghai and Vivian 1992). To put it simply, in a capitalist society the economy grows at the cost of natural resources. Doña Fannia said that people have become self-absorbed in the explosion of consumerism, rarely bothering to truly participate in institutional campaigns for the environment or social issues:

There is a divorce between institutions and individual work. We are missing the group, and honestly I think it is a characteristic of all of San Carlos. Everyone just does his or her own project. If someone benefits from conservation, they will take an interest. If it doesn't help them, they won't care. Society is organized to consume nature, and again, the better quality of life is to care for it. People here don't really enjoy nature; they have cell phones and technology (Doña Fannia, translated personal interview, 2 April 2013)

Doña Fannia's description of individualism in the rapidly growing economy was felt mutually among most respondents, especially those who have lived in La Fortuna since the economic changes took off. Doña Fannia's husband said that people involved in the environment are rare. Most people in La Fortuna, he said, are hotel owners now. Many hotel owners were, or are still, ranchers. People tend to involve themselves in activities that bring in money. He said that everyone is too focused on prosperity to pay attention to each other or the landscape around them. No one needs to care for the environment in order to prosper, so they do not.

Don Felix is convinced that the explosion was the catalyst that changed La Fortuna. The forest has not grown back yet, and volcanic soil has changed the vegetation and abundance of wildlife. New people have settled in the town to make a living off the fame, but were never there for the explosion. He says that the year 1968 is forgotten in social consciousness and that the most devastating change is the consumerist mentality:

People are not obliged to care for the land anymore because before, they cared out of life and love. Now, the problem is money. In this moment, there is an affixation in the zone with money, and it creates problems around with our ego. People do not care because they are ambitious. The vision of prosperity creates problems, and you know it because with jobs it's for money, money, money to return to your family. Construct, construct, construct, and do the easy work with tourists. Or pesticides. The farming work before was with a machete. The job was slower and harder, but more honest. I don't like the way we ruin the land. The problem is here, you understand, because people want to do everything quickly and make money. We've invented a mountain of things to make quick work. But it all has

negative consequences, right. For the quick work, the natural world is paying (Don Felix, translated personal interview, 11 March 2013).

Conservation and resource management practices that benefit a larger community, on a regional or national level, are far out of people's minds. Jhonny Calderón, an eco-tourism business owner, said that this individualism was hurting the community:

There is a tendency here, where the culture is very individualistic. 'I want the more benefits,' 'I don't need to conserve more than the park,' etc. The community is not unified. We have a culture focusing on conserving money, a lot of it, easy, and fast. We don't have interest in the 'all,' only what the 'I' benefits from.

Locals in La Fortuna often live a life of cognitive dissonance, where their beliefs and attitudes about their actions conflict. Jhonny described how people own businesses in the tourism industry, and hate the consumerism tourism brings to the town. People build their houses larger and dig up the jungle for swimming pools, but claim that the community does nothing to conserve. Hotels have a reputation for operating under an "eco-tourism" title, but dump waste into the river.

The older, agricultural generation blames the consumerist mentality for social and environmental issues. However, the younger generation and those involved in the ecotourism industry blame the farmers for polluting and mistreating the environment.

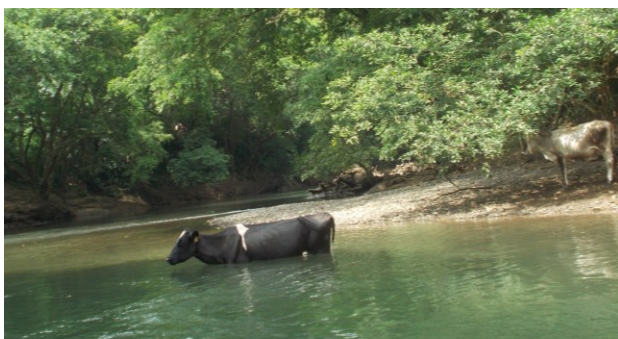


Photo 3: Cattle from a nearby ranch wander into the River Peñas Blancas to cool off. Cattle and agricultural chemical runoff are the highest level of river pollutants, according to key informant Jhonny.

Jhonny's main concern is the polluted Rio Peñas Blancas. He said that chemical runoff and cattle from farms pollute the river, despite the laws protecting the riverbank vegetation. Hunters, too, violate laws protecting the fish and wildlife. In the past, he says, the little amount of hunting

and agriculture had little impact. Now, with increased dependency on the river's resources and growing population, people do not understand that they cannot act only out of individual interest. Jhonny said that the government would be more effective if it operated within the community:

I dream and I wish that the government would put 'river rangers' in the interest of the rivers and the La Fortuna community. We benefit from a lot of people's work, but perhaps I would like to see more direct influence outside the park. There is no river ranger asking what you are fishing, how, or how often. On these farms, after two-month trees are cut down, more are replanted, erosion ruins the riverbank, and the process repeats itself. It's very sad" (Jhonny, translated interview, 31 March 2013).

Policy, Jhonny said, is not enough to protect natural resources. People will always skirt the law for their own benefit. He said that the entire La Fortuna community is stuck in an individualistic mentality, detrimental to the environment. A cultural shift needs to take place.

Jhonny blamed the people who dump litter and pesticides into the river and who hunt illegally for their lack of education. They ruin the river for the people who do care. Hunting with a gun is now illegal in Costa Rica, but people who have for generations still do. A change in consciousness is necessary to save the river and the natural landscape. Education, Jhonny said, would solve this:

The community should create school programs outside of La Fortuna, in el Tanque, Ciudad Quesada, etc. Other fathers hunt, and the father influences his son. So unless that son sees otherwise at school, he will think like his father and hunt. I like to fish, it's a great hobby, but there are ways to fish with a consciousness.

Many people used natural resources in the past are not used to practicing environmental consciousness. Jhonny and Doña Fannia said that sometimes, people feel they do not need to change because they never needed to before.

Doña Fannia says that a consciousness "to should" is slowly taking root in the older generations used to hunting and not thinking about resource protection. While

businesses might not really be sustainable, the idea is there. People who used to hunt often no longer do. A new perspective on the natural world as sprung from the international attention and ecological awareness:

I had this huge Pilón tree, a wood hard and fine. But when we built the house it was too close so we cut it down. That's how it was in past, we just used the land without planning. We cut down trees, and my dad would hunt two or three animals at once. Now, people care where before it didn't matter (Doña Fannia, translated personal interview, 2 April 2013).

The growing economy and population has put pressure on La Fortuna's natural resources.

Although consumerism has been detrimental to the environment, the influence of ecological value has crept in.

Doña Fannia agrees that the best way to create an environmentalist mentality is through education. While older community members may be reluctant to change, local youth growing up with an ecological mentality are more likely to solidify an environmentally conscious culture. Doña Fannia's theory is that educating local youth will be more effective than educating the older generations:

What is the necessity of nature, the trees, and why are we protecting it? They call learning this "acculturation." But I think it is better to teach the kids because with adults, it is so hard to change their minds. In all conservation areas, education is the most important. What we should do, you know, is first teach people that to conserve is a good way to live (Doña Fannia, translated personal interview, 2 April 2014).

Doña Fannia said that her own daughter was attending the University of Costa Rica in San José. She said that already, her daughter is more accustomed to communication technology and global ideas than she is. Both Doña Fannia and Jhonny stressed that the younger generations will be responsible for the future. Many adults are trying to adapt to ecological change and preserve natural land for future generations, but it will be more productive to develop an ecological, group mentality in the younger generations.



Photo 4: “Do not litter” sign put up by the community on a roadside riverbank. Efforts to protect the environment are increasing locally.

Despite cultural conflict over environmental values among the agricultural and tourism industries, there is a strong environmental mindset among all the people I spoke to in La Fortuna. Perhaps, this change is slowly manifesting in the push for ecotourism.

Jhonny Calderón says that his choices within the tourism industry either help the river he knows or hurt it. His company is the only one that offers the “night safari tour,” where clients can see the jungle come alive at dusk on the lazy Rio Peñas Blancas south of La Fortuna. Showing people the beauty of nature as well as the problems, he says, will help visitors understand the importance of caring for it.

Many people blame the farms for polluting the rivers, but Finca Vargas has many policies to protect the water. Don Rodolfo, a son of the owner, said that they do not put manure in the river, and they have established a “rest area” for the river. The rest area, Don Rodolfo said, is an area on both sides of the river where there are trees and the cattle are not permitted:

We do this because the cow is not an animal of the Americas. Cows are from Europe, or India, or parts of Asia.... We have to plan so that we do not damage to nature. The land is not prepared for this animal. Nature here is prepared for a wild pig, monkeys, and sloths. But not a cow, at least not in Latin America (Don Rodolfo, translated personal interview, 5 April 2013).

Don Rodolfo said that there are two parts to a natural resource mentality. One is water, the other is land, and they need both to produce cows. If there is not one, the other cannot exist. Almost all of Costa Rican farms find a balance between consuming and conserving the two. Planting trees to make a “live fence” along the riverbank is a recent strategy.

Within the La Fortuna community, ranchers are beginning to adopt an environment

consciousness of their impact as well. Don Rodolfo, the director of the tourism component to his family's ranch, has made an effort to include minimal environmental impact in his tours. This way, the ranch makes an effort to protect the environment for the group while benefitting from the growing ecotourism industry promoting sustainable tourism.

Around the world, said that dairy farms make a huge impact on soil, deforestation, and water pollution (Don Rodolfo, translated personal interview, 5 April 2013). The trend for better natural resource sustainability is fairly new, but crucial to conserving natural resources and sustainably growing food. Little by little, Finca Vargas and La Fortuna are learning how to balance individual and environmental benefit:

I hope that many people understand the value of preserving nature. Anyone can take advantage of it. I am convinced that the ministries manage nature for us, so we do not know much. We are hungry for the truth. We must take and use up the water and the landscape, so it is a shared problem, that we conserve nature and seize it at the same time (Don Rodolfo, translated personal interview, 5 April 2013).

A conscious environmental dialogue is present in businesses and agriculture.

People feel a collective responsibility for the resources they use. La Fortuna locals seem to unite over shared benefit of tourism and the growing importance of their natural landscape.

To generalize this solidarity, La Fortuna community is unified in their love of water. They reference the community park and the pounding waterfall they charge tourists to see more than they consider the National Park surrounding the volcano in examples of conservation. The town has won the "Bandera Azul" national recognition for water quality four years in a row. The Bandera Azul program works closely with the local schools to teach environmental ethics, so people are adamant the power to preserve

comes from the “future generations.” The hotels that conserve water and sport the Bandera Azul flag on their brochure are recommended first by locals. Ranchers keep their cattle away from the riverbanks. Farmers who use pesticides near the streams on their land are abhorred. People organize events to pick up litter in the rivers. “Water belongs to everyone” they say- “sin agua, sin vida,” without water without life.

“Sin agua, sin vida,” said Pablo from his ecological hotel. “To protect water is to protect all,” said Mariavela the recent university graduate. “The woods give us water, and water gives us energy,” said Ed the tour guide. “Water is our life,” said Diego from his office desk. “We need to conserve the water,” 58% of the people I talked to immediately said in response to the most important natural resource. Migrants, tour guides, farmers, and porch-sitters all said it. They all have that perspective in common. In La Fortuna, the town made famous by the volcanic explosion 45 years ago, a sense of community is strong.

The tourism boom after Arenal Volcano exploded invited in a rapid increase in consumerism. With consumerism, locals say, came an “individualistic” culture. As the community rapidly increased in population and consumerist culture, stresses on the environmental resources and social issues manifested. La Fortuna’s main attraction is the natural volcanic, ecologically diverse landscape. Without that landscape, La Fortuna would not have received the popularity it has. The number hotels, agricultural production, and property prices skyrocketed. People involved in agriculture generally represent an older generation of La Fortuna, used to rural life and plentiful resources. The new tourism industry generally represents a newer generation, which has brought rapid urban development to La Fortuna. While each

occupational culture has different perspectives about what it means to manage resources, a growing consciousness for the environment has created solidarity. Businesses, land management, and the entire social mentality overlap in the protection of water. People in La Fortuna generally feel a responsibility for the quality of their shared landscape.

Arenal National Park

Most respondents were interested in their local landscape, but almost none were interested in the nearby Arenal National Park. As a means of conservation, respondents agreed that the park has a role. The local community, however, did not feel responsible for its success or upkeep. Tour guides and park employees were the only respondents with enough background information to discuss the park. Other locals said that they had never been to the park, that it was “of the government” and therefore did not know enough about it to comment. Outside of tourism, La Fortuna locals were not invested in Arenal National Park.

Arenal National Park was created on September 30th, 1991 and opened on March 22nd, 1992 to protect the biological zone and preserve the volcano’s view as a cultural monument (Olcampo 1998). Its popularity comes from the tourism industry and its presence in guidebooks. It consists of 12.124 hectares, with short hiking trails of about 3 km in total length through secondary forest and lava fields (Arenal.net 2002). Arenal National Park is within the Arenal Huetar el Norte Conservation Area, which manages natural resources in a 98.453 hectare area out of Ciudad Quesada (Instituto Costarricense de Turismo 2013). There is no office in La Fortuna. Based on the SINAC land management system, a strong relationship between the National Park management

program and the developing community of La Fortuna is increasingly important to maintain financial and social resources.

The most common scene at Arenal National Park is the arrival of people. They do not arrive on foot. Most people arrive inside coach-busses or van with a “turismo” stamp on the back. The dirt clearing at the park’s entrance is packed with the vehicles while clusters of tourists wait to be herded to the trailhead. I followed behind a group of blue umbrellas, listening to the guide point out this tree and that and mock the sound of a howler monkey. The group was from Texas, leaders from Christian Young Life and their families here for a cruise and to stay at a nearby resort. They were a slow-moving group,

so I took on the next kilometer section on my own.

A black bird hobbled out in front of me, and I watched it for a while. A guide and two French tourists came up behind me, and the guide asked me to get out of the way so his clients could take a picture. “It’s a turkey,” he told me matter-of-factly.

Tourism is the purpose of the park.

Alfaro, the head of Arenal National Park, said that the current objective is to conserve and protect everything ecological within the parks’ boundaries. Secondly, their job is to protect and monitor the volcano as well, for safety and as a

national symbol (Alfaro, translated personal

interview, 8 April 2013). The third objective is

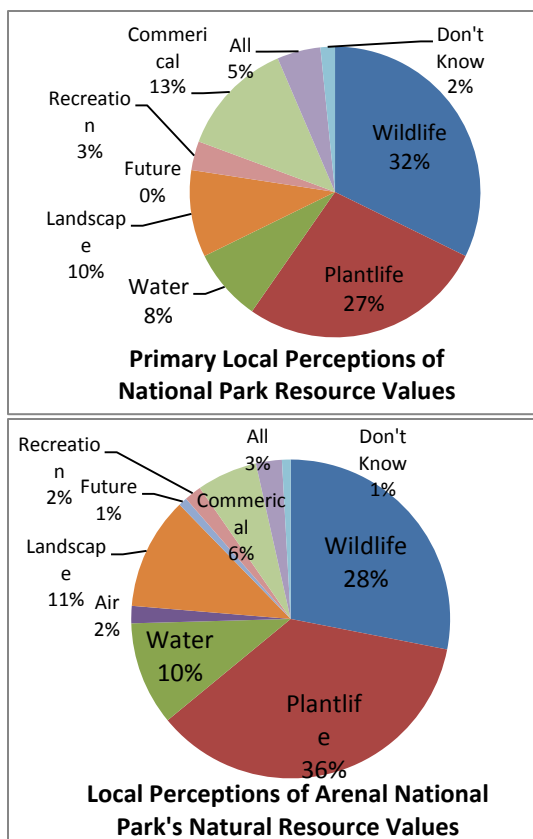


Figure 6: Responses to the question “What resources does the National Park value?” The responses are broken up into the first answer the respondent said (top) and the overall chart (bottom) includes all answers the respondent gave.

to promote tourism as a source of income. The majority of visitors to Arenal National Park are tourists from more than 50 kilometers away from Arenal who come to see the volcano (Alfaro, translated personal interview, 8 April 2013). Alfaro's official description of the National Park's objectives coincides with the community's description of the National Park's objectives. The park is for the "flora and fauna" within its boundaries and for visiting tourists. According to Alfaro, the number of tourists to the park has been declining in the national park as they have been all over La Fortuna. The national park's most current concern is to find economic resources to maintain the protection and personnel:

There [La Fortuna], there is a tendency for individualism, and because of this there can be economic problems. The economy was established, but it appears to be declining. For many reasons, right: first, the volcano is not erupting any more for the past 5 or so years. Second, there are economic problems worldwide, and fewer people come. So, we are looking for alternatives to tourism and a more stable source of income (Alfaro, translated personal interview, 8 April 2013).

Because the park is already established as tourism destination, fulfilling that role may be the fastest way to generate revenue. Yet in the long term, Alfaro suggested that tourism may not be the most sustainable economic income. Due to the international economic slump and the lack of lava flowing from the volcano lately, the tourism industry is beginning to slip. Local investment and involvement in Arenal National Park would establish a relationship and increased access to resources.

Tourism is the most obvious way to connect to the tourism-economy of La Fortuna. The park has unclear motives outside of tourism, according to key informants and guides within the National Park. All national parks, they said, protect the "flora and fauna," and in the case of Arenal National park, monitor the volcano's activity. The park's priorities

and methods of conservation are unclear. Aaron, the government-employed National Park guide, said:

I am actually not clear what the government tries to protect in the park. Because, if I call the National Park because there is a person hunting the endangered animals, there is no one who responds or uses their authority to stop them. There is very little staff to eliminate such incidents. In that way, the National Park is totally abandoned by the government, while it benefits from the entrance fee money (Aaron, translated interview, 25 March 2013).

Aaron suggested that not only was the community un-invested in the park, but that the park lacked the personnel to invest in itself. Those who do not benefit from the park do not involve themselves. Since the government is the only group that benefits directly from the park, only the government and government employees will get involved.

The only locals who are regularly involved in the park are the guides. Jorge, a private guide who leads tours in the National Park said that the “government policy makers do everything. They take care of the grounds, the ticket sales, cleaning, everything. The community does not intervene at all” (Jorge, translated personal interview, 25 March 2013). This is true. With the exception of a few students and teachers, people in the community not involved in tourism guide agencies had never been to the National Park before.

The community of La Fortuna was unanimously disinterested in the national park. Other private parks provide the educational and community building aspects. Locals say that the National Park is also not worth visiting because they can get the same views from their homes and backyards. Logistically, the National Park is 18 kilometers away from the town of La Fortuna, including three and a half kilometers of dirt road. A fee is also required to tour the park. Locals felt as though they can enjoy the view of the volcano with much less effort than it would take to go to the park:

The creation of the National Park was important because the government began to market at an international level and a huge number of tourists began to visit the zone. For the first eighteen years, visiting the park was informal. You went to the part and you had no limits—you walked where you wanted. But it was also dangerous because the volcano was so active. I know, in seriousness, that the first accident after 1995 when some students were killed by an avalanche of lava. It was very close to here (Felix, translated interview, 11 March 2013)

To people uninvolved in the park, the park is more of a safety precaution and preserved monument to the explosion that brought La Fortuna fame. Concerning the National Park as an institution, the general consensus is that the park and community are separate. The government manages its land, and the community manages its. There is little to no connection between the two.

Currently, the Arenal National Park does not have the resources to seek community outreach options outside of tourism businesses. The park is uninvolved outside of its boundaries because the management has very few resources to appropriately maintain the park. There are only nine personnel in the park, including vacations, time off, and health (Alfaro, translated personal interview, 8 April 2013). With so few people managing such a large area, there is little opportunity to improve the park and reach out to the community.

The lack of the park's resources caused local participants to see the park as run down and poorly managed. In La Fortuna, private tour companies use the National Park as a tour option. Jorge, a private tour guide, said that the National Park tours are rarely advertised because there are so many better, more scenic, and more active options. Tours to Arenal National Park are popular because of its presence in guidebooks and its title as a "National Park" (Jorge, translated personal interview, 18 March 2013). He described why he disliked guiding in the national park:

Well, the largest problem with the park is the infrastructure, the walks, the services, the bathrooms, and the reception. The infrastructure in my opinion for the quantity of tourists that pay to go to the park makes it the worst national park in Costa Rica. There are enough tourists with enough money, and the infrastructure is still horrible. The community only sells tours to the national park, nothing more (Jorge, translated personal interview, 18 March 2013).

Other parks created by private landowners or community associations are better managed. This is because the owners directly benefit from the income. With private parks, the environment is conserved while the community directly benefits economically.

The park would better itself in many ways by increasing its social role beyond tourism. According to Don Rodolfo, who runs the tourism component of his family's ranch, the community is sufficient on its own. The National Park would benefit more from involving itself in the community than the community would from involving itself in the National Park:

Remember that the National Park is only to protect. Educating the community and tourists and providing good access to education is important, but the park is failing at that...First, the national park should accept a line of work that complies with the community development. An eye to delegate the administration of services to a community gives it the resources to improve the community. If there is no money, the park can't do anything. The small businesses with conservation sites have more respectable bathroom and better-maintained trails. These businesses are and should be more successful than the park... In the other parks, there are museums, water, guides, information, and there is access for all kinds of people- elderly, children, and for people with disabilities. Arenal National Park doesn't have that. I would recommend the Catarata or an adventure tour first. The park doesn't help the community, nor does it visit schools to educate children about soils and about environmental protection (Don Rodolfo, translated personal interview, 5 April 2013).

The National Park and the community are completely independent from each other, and therefore do not collaborate. In some ways, the community environmental values are slightly different than the National Park's objectives.

The 2013 survey suggested that the community tends to prioritize the protection of water, followed by flora and fauna (figure 7). Commercial interests, soil quality, landscape aesthetics, and future generations were also important. The National Park prioritized flora and fauna, but had more of an emphasis on commercial interests and recreation (figure 6). People thought that the National Park valued water and the availability of land for future generations, but not as much as the community did. While the community focuses on its private tourism agenda and other social programs growing in popularity, the National Park is focused on the national level of protection and income. The community saw themselves valuing different natural resources than the natural resource interests they saw the National Park protecting.

Statistically, community satisfaction with Arenal National Park management averaged 2.35 on the Likert Scale, in the “passive no” range on a scale from one through five (figure 8). People who had lived fewer years in La Fortuna were generally more satisfied than the multi-generational members, although their answers still fell in the unsatisfied Likert Scale range. Fourteen people (23%) responded that they did not know

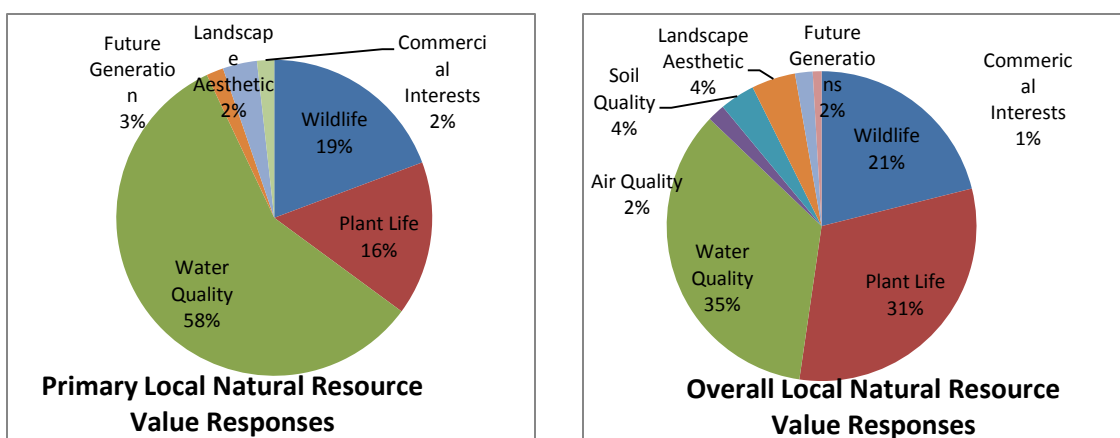
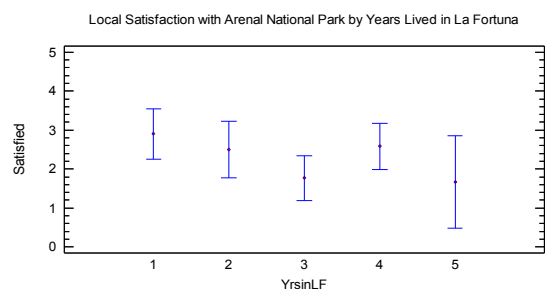


Figure 7: Initial (left) and overall (right) responses to “What natural resources do you personally value?” The community tends to greatly value water quality. Compared to figure 6 on the National Park values, the community sees themselves and the National Park as having slightly different objectives in natural resource management.

enough about Arenal National Park to say. The high proportion of people who claimed, “don’t know” was most often because the participant did not know enough about the park to have an opinion.

The National Park itself was considered the major, if not the only, group that benefitted from Arenal National Park. The National government received 55% of the responses and as the group that benefits the most from the National Park. The tourism industry and tourists themselves were the second largest group to benefit, each with 14% of the overall responses. No occupational user group considered themselves the major benefactor of the community with the exception of community government workers, who tended to say that “all” benefit. This supports the overall opinion that the park is not involved in the community.



Years in La Fortuna	Count	Average
1: 0 to 4	10	2.9
4: 30 to 49	12	2.58333
2: 5 to 9	8	2.5
3: 10 to 29	13	1.76923
5: 50+	3	1.66667
Total	46	2.34783
14 don't knows		ANOVA pvalue 0.0740

Figure 8: Responses by years lived in La Fortuna to the question “On a scale of 1-5, one being not at all and five being very, how satisfied are you with Arenal National Park?” People were generally unsatisfied, ambivalent, or did not know. There was no significant trend, but generally people who had lived in La Fortuna for more time were less satisfied.

Doña Fannia volunteers at the school, is involved in community meetings, and is one such individual who has never been to the National Park. She said that one day a year, the town celebrates National Park day, where they give young trees and the community plants them. After that, the park “focuses on money to maintain their institution.” People feel that if the national park wants to play a greater role in the community, the government workers will have to involve themselves in what the community does. They currently do not, and so people often

“forget the park exists.” For locals not directly involved in tourism, the park is not even a factor in regarding the local natural landscape.

Both the park and the community see mutual benefit for both the environment and economics through establishing a relationship. Neither wants to put in the effort to establish one because both the government and community already benefit independently from tourism. Alfaro (translated personal interview, 8 April 2013) said that he would appreciate more community involvement, but that his priority was conservation and tourism:

If, for example, there is a community project that is important, it could be a portal for the park to act more in the community. Also, we have a project and then for example we could work with them. If they need to have some piece of equipment, in a way they are interested in us and begin a dialogue. There is a fountain of tourism to work with in the communities, to work or help or capitalize. We would like to help the small-business to tourism a little more to further support our area (Alfaro, translated personal interview, 8 April 2013).

In this explanation, Alfaro explains that the community is always welcome to work with the National Park through projects. If the community were to reach out to the national park, the national park would invite that relationship, especially with small tourism businesses looking to capitalize on the two million dollar tourism industry (Alfaro, translated personal interview, 8 April 2013).

Because the park focuses on tourism, the only connection it has with the community is through

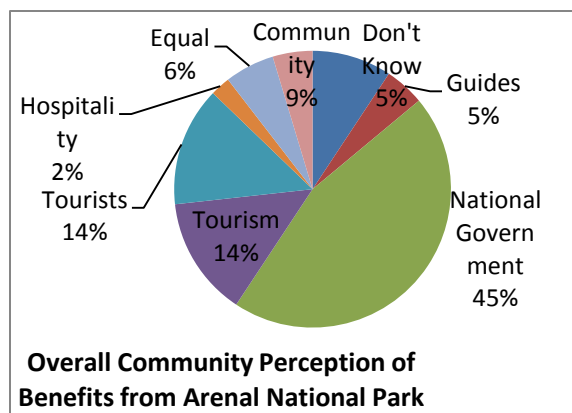


Figure 9: (above) The overall response to the question “Who benefits from Arenal National Park? The National Park benefitted the most, followed by the tourism industry and tourists. Some saw the community and “everyone” as benefitting from the park.

tourism. For most people in La Fortuna, this is not a bad thing. The park is seen as a tourism business run by San José, larger but less put together than the private parks like Mirador el Silencio or Arenal 1968 (Don Rodolfo, translated personal interview, 5 April 2014). Since people are successful without depending on the government-run park, the community is more sustainable.

The main problem is the lack of communication. If Arenal National Park provided more access, education, and overall contact with La Fortuna, it could make a positive impact on all economic sectors of the community. On the other hand, the community could reach out to the government land to form a relationship. Regardless, both user groups of the Arenal landscape are responsible for the land they use.

The important value to the National Park should be to protect nature, empower people, and the good use of resources. It is sometimes thought to conserve is to leave everything intact. No, to conserve is also to use resources properly. The National Park is in an area of high risk and this makes it vulnerable to other predators that are unnatural to the area. Then in a way, the mismanagement of resources is on the part of the community members (Aaron, translated interview, 25 March 2013).

The community is independent. Locals have a shared sense of solidarity and self-sufficiency and say that La Fortuna has a “government of its own” (Doña Fannia, translated personal interview, 2 April 2013). La Fortuna people see themselves responsible for their own land and community land. The overall opinion is that the government land is its own responsibility and less successful than the community’s land. The problem appears to be within the park, and for the park’s interests. If tourism is the National Park’s only source of local support, and the tourism economic income is falling, the National Park needs to recreate a strong community relationship. **Conclusion**

Different landscape perspectives exist within the La Fortuna population. People construct different perspectives of their landscape based on their experience. The number of years and individual has lived in La Fortuna, what they do for a living, education, and personal experiences are all contributing factors to how a La Fortuna local might regard the natural world. The most drastic contradiction was in occupational differences, whether an individual worked in tourism or agriculture. Individuals involved with agriculture often blamed the tourism industry for “polluting” the landscape and the increased social problems that come with urban development. People involved in tourism blamed ranchers and farmers for polluting the rivers and hunting protected wildlife.

At the same time, agriculture and tourism as two separate occupational cultures was the most representative of the adaptation and community solidarity that is taking place in La Fortuna. Values of the land do not necessarily compliment economic values. However, the respondents involved in agriculture and tourism both suggested a growing “environmentalist mentality.” People in La Fortuna were generally unified in concern for water quality and the shift from a recently established “individualistic” mentality. The quotes from the seven key informants describe this shift.

This ethnography presents a snapshot of La Fortuna landscape perspective. The survey and observations represent a starting point to further understand how locals in La Fortuna perceive their landscape. La Fortuna as a town has seen an abrupt change in socioeconomic practices. SINAC, a globally unique national system of land management, promotes ecological consciousness and tourism in the region. However, the closest National Park is completely separate from La Fortuna. The original purpose of the paper was to find out why locals did not associate themselves to the National Park. The

separation between local and national government paled to more a local social and environmental dialogue. Locals in La Fortuna are more influenced by the local push for environmental consciousness and eco-tourism than they are influenced by government-sanctioned projects. SINAC is not the catalyst for environmental change, nor does it define the cultural landscape of La Fortuna. A community-based push for conservation and economic change are the driving forces behind the current cultural landscape of La Fortuna. The influence and success of the national park was often compared to the influence and success of community-based programs.

The locally run park, with a waterfall and steep hike to a crater, is much more advertised in the local tourism industry than the National Park. This is because the money this park makes goes directly back to the community through educational and social programs. This direct benefit is much more tangible than investing the government's fees for the National Park. Key informants explained that with the National Park fees, the money goes to the capital and likely administration. La Fortuna is proud of its own government and land management, which has a reputation as an environmentally and socially conscious town. The local government is the source of La Fortuna solidarity and community motivation.

Bandera Azul, for example, is a government program supported by the community that encourages water management and clean rivers. Schools, hotels, and businesses are included in the effort to educate the community on water protection (Don Rodolfo, translated personal interview, 5 April 2013). The town wins an award every year for meeting a certain standard of water quality and conservation. This government conservation program is more effective than the National Park because Bandera Azul

involves both schools, the economic community, and is supported locally. Socially, the local government holds most of the community mobilizing power.

Opportunities for future research and future action are plenty. The new problem is that the booming tourism industry is slowing down (Alfaro, translated personal interview, 8 April 2014). To succeed, the National Park needs to rekindle its community involvement beyond tourism. One possible solution is to promote community recreation opportunities and projects within the community. With this ethnographic account as a starting point in several social groups perspectives over time, a spatial analysis of community landscape perspective would be a good way to record and access local knowledge. A more insider view, with better access to local knowledge and community leaders, would benefit this work greatly. Geographic Information Systems (GIS) mapping would also be an interesting way to visualize the varying perceptions, natural resource, and socioeconomic layout across space.

This work contributes to the realization that different perceptions and connections to the local landscape exist within the majority. Opening a dialogue to why people should care about the landscape and its resources will promote a deeper sense of community agency with their landscape. The National Park is failing. The answer may be in the increasing community solidarity and shared responsibility for the environment.

Photos from Arenal National Park, March 2013



Left: the road to Arenal National Park. This dirt road is 3 km long from the highway, passing between cattle fields and a privately owned park. A few visitors take the public bus that passes the turnoff for this road twice a day. Then they hitchhike or walk this road. Most visitors arrive in commercial tourism vans or busses.

Right: Tourists listening to a guide on the Arenal National Park trail. The guide speaks English and explains the two loop trails within



"It's a turkey," the private park guide said in English to his two clients. The bird rests in the shade in the middle of the trail.

Right: this sign is at every trail intersection in Arenal National Park. Primarily, the purpose is to show the fastest evacuation routes in case the volcano explodes. The visitor accessible part of the park includes the main parking lots and a looped trail with three main destinations, pictured below.



The three main destinations of Arenal National Park, counter-clockwise: Ceiba tree, Volcano view, and “lookout point.”



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END NOTES

¹ All charts, graphs, and photos are from my own collection of interviews and surveys from February-April 2013 in La Fortuna, Costa Rica unless otherwise noted.

² Name has been changed upon request to protect privacy and conflicting interests between personal and job-associated perspectives.