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Ecotourism and Sustainable Rural Development in Pérez Zeledón, Costa Rica

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Abstract

This article explores the contributions of ecotourism to sustainable community development in a predominately rural area of Costa Rica's southern interior, away from the country's more concentrated touristic regions. An ethnographic case study was undertaken in the village of San Gerardo de Rivas, the entry point for tourists who climb Costa Rica's highest peak. Here, tourism has become a complementary source of income to agriculture. Drawing on local perspectives, an understanding emerges of how this industry has shaped environmental perspectives and practices, as well as how local people are negotiating the direction of tourism development to optimize the benefits to their community. The potential opportunities and limitations for further ecotourism industries in Pérez Zeledón are also explored, along with an assessment of other sustainable rural development options.

Keywords: ecotourism; rural livelihoods; sustainable development; environmental practices; local perspectives.

1.0 Introduction

Images of tourism in Costa Rica often include coconut palm-fringed beaches, toucans and turtles, the lush central valley around San José or the resorts of the Nicoya Peninsula. The Central American country of 4.9 million people (Costa Rica National Institute of Statistics and Censuses [INEC], 2017) has undoubtedly experienced a boom in ecotourism, a variant of tourism focusing on experiences in the natural environment. However, it has tended to be concentrated in certain areas with easier access for international tourists or with specific biogeographic features. This research examines a less frequented rural region of the country, with a small but growing ecotourism industry.

How ecotourism contributes to sustainable development outcomes is a contentious issue (Butcher, 2006). Potential benefits of ecotourism include increasing income for local peoples, community control of tourism development decision-making, raising environmental awareness, generating financial benefits for conservation, revitalizing local cultures, and strengthening human rights as well as democratic movements (Aylward, Allen, Echeverria, & Tosi, 1996; Báez, 2002; Das & Hussain, 2016; Gunter, Ceddia & Tröster, 2017; Horton, 2009; Hunt, Durham, Driscoll & Honey, 2015). However, scholars have found significant negative impacts on both local peoples and the environment, due to displacement from parks (West, Igoe & Brockington, 2006) and environmental

degradation caused by accommodation, infrastructure and services for tourists (Carrier & MacLeod, 2005; Meletis & Campbell, 2009). Over the last decade, there has been increased consideration of the potential implications of climate change and associated policies for tourism and, to a lesser extent, the greenhouse gas emissions generated by tourism (Boley, 2015; Gössling, Scott, & Hall 2013; Weaver, 2011). While some argue that ecotourism development, particularly near protected areas, can push out agriculture, others have found that ecotourism can contribute to economic diversification in agricultural communities (Matarrita-Cascante, Brennan, & Luloff, 2010; Timothy & White, 1999). Both at local and global levels, there is controversy over the merits of ecotourism as a development strategy when considering environmental and socio-cultural factors.

This article considers the role of ecotourism in promoting sustainable rural development in the village of San Gerardo de Rivas, Pérez Zeledón. The following key questions are examined: how are some households engaging in ecotourism employment as an alternative or complement to rural agricultural income; how has ecotourism influenced environmental perspectives and practices; and, how do local people define, shape and negotiate the direction of ecotourism development as part of global processes that impact their rural livelihoods? Interviews and surveys with members of local households and organizations, as well as participant observation, were used to examine perspectives of agriculture and ecotourism work, as well as environmental practices. By consulting local perspectives, this research highlights the complexities and complementary nature of agriculture and ecotourism for rural economic development. The opportunities and limitations for further ecotourism in the canton are also considered, along with other household economic diversification strategies that provide sustainable rural livelihoods.

2.0 Ecotourism and Environmental Sustainability in Costa Rica

The Costa Rican economy throughout much of the nineteenth and twentieth centuries was based on export agricultural production, primarily of coffee. Since structural reforms in the 1980s, the economy has diversified to include the processing of microchips and medical technologies, a broader range of export crops and tourism. In 2016, 2.93 million international tourists visited Costa Rica and the country received the highest per capita number of tourists in Central America. With earnings over US\$3.66 billion in 2016, compared to US\$990 million from bananas and US\$309 million from coffee, the tourism industry accounted for 6.4 percent of Costa Rica's GDP and 39.8 percent of foreign exchange earnings (Costa Rica Tourism Board, 2017).

Costa Rica has been described as ecotourism's poster child and a laboratory for green tourism (Honey, 2008). The success of ecotourism stems from a number of ecological and political factors, including the abolishment of its military in the 1950s and the expansion of protected areas in the 1970s and 1980s, which now cover twenty five percent of the country (Horton, 2009). In the mid-1990s, the Costa Rican Tourism Institute created the voluntary Certification for Sustainable Tourism (CST) program to show the government and the tourism industry's commitment to sustainable tourism practices. The Costa Rican National Chamber of Ecotourism (CANECO) was established in 2005 (Trejos & Chiang, 2009). Despite some positive benefits in terms of employment and environmental protection, numerous concerns about ecotourism development in Costa Rica include foreign land and business ownership (Honey, 2008), tourism-related inflation of local real estate (Almeyda, Broadbent, Wyman, & Durham,

2010), high levels of economic leakage (Campbell, 2002), socio-cultural impacts (Vivanco, 2006), waste management issues (Meletis & Campbell, 2009), lax environmental standards and the underfunding of National Parks (Weaver, 1999).

Internationally, ecotourism research has concentrated on its contributions to sustainable development and the factors that can lead some ecotourism projects to be more sustainable than others. A meta-analysis of 215 case studies of ecotourism from academic literature found that local community involvement was an important predictor of whether an ecotourism project was perceived as successful in attaining sustainability goals. Within sustainable projects, revenue creation was considered a factor that led to changes in land-use patterns from consumptive to non-consumptive. Establishing small-scale initiatives over large-scale operations was likewise shown to contribute to sustainability (Kruger, 2005). Detailed case studies of community agency in ecotourism projects (Matarrita-Cascante et al., 2010; McAlpin, 2008) also reveal a need for comprehensive consultation and inclusion of community members.

Pro-environmental perspectives among community members have been linked to involvement in ecotourism (Stem, Lassoie, Lee, Deshler, & Schelhas, 2003), but this relationship has been inadequately assessed. Ecotourism can foster new relationships among diverse actors and institutions (Vivanco, 2006). In La Fortuna, Costa Rica, one study found that local attitudes towards nature have changed, as interactions with tourists have provided information and opinions about the environment (Matarrita-Cascante et al., 2010). On the Osa Peninsula, Costa Rica, people employed in ecotourism were more likely to have a positive attitude towards the existence of national parks and protected areas than non-tourism workers. With the growth of ecotourism, hunting and deforestation had declined in the region (Hunt et al., 2015). In a study involving participants from four Costa Rican communities near national parks, it was revealed that locals directly employed by ecotourism were hunting in protected areas less, partly due to the time constraints of paid work (Stem et al., 2003). Indirect involvement in ecotourism, such as attending community forums or receiving training, was more likely to influence pro-environmental perspectives than employment alone. The processes and factors that affect environmental perspectives and practices likely vary significantly between context-specific ecotourism initiatives.

3.0 Regional Context: Pérez Zeledón

The canton of Pérez Zeledón provides an example of the convergence of historical and contemporary agricultural production, emerging tourism opportunities and changing socio-economic conditions. Pérez Zeledón has a population of 135,000 (Costa Rica National Institute of Statistics and Censuses [INEC], n.d.) and was largely settled following the expansion of the Pan American highway in the 1940s (Sick, 2008, p. 35). The economic development of the region was primarily based on coffee exports, however by the early 1990s, many families were struggling to make a living from coffee due to the volatility of coffee prices, as well as increasing costs of production (Samper, 2010). While the coffee crisis of the early 2000s exacerbated these problems, coffee-growers in the region had already been seeking alternative or supplemental income strategies, including a reduction in the areas planted in coffee, expanding sugarcane production, diversifying their crops, converting land to beef and dairy, or seeking wage labour jobs (Sick, 2008). With a population of 46,000, San Isidro de El General is a hub for regional economic activity, providing non-agricultural job opportunities (INEC, n.d.).

Heavy reliance on volatile coffee markets has led to high levels of emigration from Pérez Zeledón. As early as 1973, the canton had a negative net rate of immigration (Sick, 2008). For many, unskilled or semi-skilled jobs in the United States provide a way to save relatively large amounts of money to pay off debts, buy land or build a house. In 2005, 88.7 per cent of emigrants from Pérez Zeledón were men (Caamaño, 2010). Remittances sent to those staying behind provide some relief for household financial pressures. Therefore, sustainable rural development opportunities, such as ecotourism, provide much-needed local income generation.

San Gerardo de Rivas is the access point for tourists seeking to climb the country's highest mountain, Mt. Chirripó (3,820 metres) and to explore Chirripó National Park. This village—population approximately 350—has undergone a significant transformation from an agricultural frontier town to a global tourism destination. Between 1930 and 1950, people came to San Gerardo from the coffee-growing region of Santa María de Dota, to claim uncultivated land. At first, these settlers lived a subsistence lifestyle, clearing forested land to grow crops and hunting for meat (Marciano, 2010). In 1975, Chirripó National Park was established, covering an area of 501.5 square kilometres (National System of Conservation Areas, n.d.). When the first tourists began arriving in the late 1970s, there was no tourism infrastructure in the village or in the park, so visitors stayed in family homes or in the community hall. These informal arrangements gradually evolved into the first hotels. At the time of the analysis in 2011, the village had nine hotels that were mainly small-scale and locally owned.

The growing tourism industry has presented a range of employment opportunities for local people. According to a national park employee, around seven thousand people a year come to climb Chirripó, with a maximum of forty people per day permitted to enter the park. Climbing Chirripó is a very popular activity among Costa Ricans; the national park employee reported that in 2010, Costa Ricans comprised sixty two percent of visitors to the park. Local people work as porters, guides and cooks, mainly for Costa Rican package-tour groups, but also for some foreign tourists. The hike is commonly undertaken as a 3-day round trip, with visitors staying at a lodge partway up the mountain. At the time of research, the lodge was operated by national park staff. However, since July 2014 this has been run as a concession by the local chamber of tourism, community development association and the association of porters, guides and cooks, providing further job opportunities for local people (Consorcio Aguas Eternas, n.d.). There are two private reserves around San Gerardo. The largest measures 1,600 hectares and has a hotel, while the other comprises 280 hectares and is oriented towards researchers, volunteers and educational tours. Other local businesses include a family-owned trout farm and restaurant, a café run by a non-profit organization, thermal springs, a yoga retreat, and the village store. Some hotels offer horseback and walking tours and all but two of the hotels have restaurants, providing additional jobs. Local families also provide homestays and meals for volunteers and tourists.

4.0 Methods and Methodological Approaches

This research explores local perspectives of sustainability, ecotourism and agricultural production. It draws on the results of research regarding rural livelihood issues in the village of San Gerardo de Rivas. Fieldwork was conducted over six weeks, from May to June 2011 and two weeks in February 2012. A mixed methods approach for data collection included household surveys, semi-structured interviews and participant observation.

Cluster sampling (Bernard, 2002) was used to ensure a geographically dispersed sample of 20 households for surveys. The survey included the names and ages of the heads of household as well as how long they had lived in San Gerardo. The survey also asked for their occupations and household sources of income. It also requested information about whether they own or rent land, the size of landholdings, what food was grown for household consumption or sale and other types of agricultural production. Semi-structured interviews were then conducted with eight men and ten women from ten of these households. Household selection was based on a range of ages, family arrangements, employment types, and geographic locations. Questions covered the following themes: (a) participation in tourism and agricultural work, (b) perspectives on ecotourism and community development, and (c) the perceived benefits and problems of tourism. Additional semi-structured interviews were conducted with seven representatives of local tourism-related institutions, organizations or businesses. These included (a) the local chamber of tourism, (b) a women's group that produces crafts, (c) the community development association, (d) a non-profit nature reserve, (e) a hotel business, (f) an organization of organic coffee producers, and (g) the national park office. Participant observation was used to gain first-hand experience of some aspects of daily life. The lead author stayed with a local family and participated in activities with local people when invited.

Information from the household surveys was used to create a profile of the participating households with respect to types of employment. Interviews were conducted in Spanish and transcribed verbatim. Data was coded by identified themes using qualitative data software. Content analysis of qualitative data involved examining data by theme, as well as quotes to identify particular viewpoints. Key quotes were translated into English.

A community-based participatory research framework (Israel, Schulz, Parker, & Becker, 2001) guided this study. Community based participatory research is an approach that involves researchers and participants in numerous aspects of the research process (Pain & Francis, 2003). Participatory approaches are recommended when working with marginalized peoples (Fletcher, 2003; Swantz, Ndedya, & Masaiganah, 2001) and other minority groups (Bishop, 2005; De Las Nueces, Hacker, DiGirolamo, & Hicks, 2012). As the project involved a rural community in Costa Rica, the Global South, a process was adapted that was collaborative in orientation and held local perspectives, as well as ways of knowing, at the core of the project (Cameron & Gibson, 2005). Specifically, efforts were made to build relationships, identify the participants and local issues, generate knowledge through research, and interpret and share knowledge.

The lead author worked with local people to fulfil community expectations of reciprocity. This approach supported needs that had been identified by community members, by volunteering fifteen hours per week for a local non-profit café project that provided employment opportunities and training for women. The researcher helped train staff and volunteers on food and beverage preparation and customer service, contributed to menu development, created a training manual and donated equipment. A workshop was also delivered for local women on producing crafts for the tourism industry and a fundraising campaign for a local scholarship fund was undertaken. The objective to privilege local perspectives involved prioritizing relationships and interactions with locals while staying in the villages. Community members were consulted on data collection processes. After data analysis processes were complete, results were communicated to community members. Access to email was limited in the village, so individual letters were mailed to the tourism-related institutions, organizations or businesses interviewed, with a Spanish language summary of

information specific to them, as well as a link to the full research findings. In addition, a brochure summarizing the findings in Spanish was made available for community members at the village store in San Gerardo.¹

5.0 Ecotourism and Agricultural Income in San Gerardo de Rivas

While tourism represents a large variety of income-earning opportunities, agriculture continues to be an important, and for some families the primary, source of revenue. The most prevalent types of agricultural production are coffee, fruit and vegetable growing, as well as raising livestock for dairy and beef production. Data from the survey sample of twenty households showed that tourism and agriculture were complementary sources of income, with the majority of participant households engaging in both. Fifteen out of twenty households surveyed (75%) had at least one head of household receiving income from tourism, including irregular sources from homestays and crafts. Seventeen out of the twenty households (85%) had at least one household head involved in agriculture, either farming their own land or as an agricultural labourer on other people's farms. Therefore, twelve (60%) of the households had some kind of engagement in both tourism and agriculture. All had multiple income strategies and people typically worked a variety of jobs, some of them seasonal. Fifteen of the survey households owned land. Average size of landholdings was 8.8 ha., ranging from 0.01 to 50 ha. Those with larger areas of land were more likely to own businesses and farms, while those with little or no land were primarily engaged in wage labour.

How ecotourism work is viewed compared to the other principal economic activity, agriculture, is important to assess. Both the amount of money earned and the type of work involved will continue to shape the ambitions of local people to further develop these income-earning opportunities. Comparisons of agricultural and tourism work were subjective and related to one's own background. While one porter said that he found going up Chirripó very tiring and that he preferred agricultural work, another porter who has a hectare of coffee noted the advantages of tourism:

In reality we don't invest in products or fertilizers, [as porters] all we need is breakfast and our health to be able to do the work. And the other advantage is that we have an established price per load and it is always the same. So you already know when you arrive up the top and come back how much you will earn. In agriculture it is the complete opposite.

Business owners, all of whom were also involved to some extent in farming, similarly expressed a range of opinions. For some, it was clear that tourism had reduced their dependence on tough agricultural work. A restaurant owner stated: "Tourism is more profitable and more relaxed." Without the necessity of farming full-time, their agricultural work was presented like a hobby, with one business owner stating, "Well, for me I have the farm because I like it a lot. But what earns me money is the business."

Members of three households principally dedicated to agriculture had stronger views on the relative ease of tourism work. A commercial vegetable growing

¹ In order to maintain anonymity, individual letters were not sent to interviewees who would have been identified in the process due to the centralized mail distribution system at the village store.

couple pointed out the differences in time involved: “They [porters] go to the mountain...and come down and they get the money straight away.” Compared to quick rewards from tourism wage labour, those who grew coffee or vegetables had to invest up front and wait until the harvest. An agricultural labourer, whose working conditions were likely more difficult than those who owned farms, stated, “Tourism is better. In agriculture, the work is very hard and poorly paid.” A small-scale dairy farmer and coffee grower added that agriculture required a lot of chemical use and that farmers got sick more often.

There were clear socio-economic and gendered differences in the views of tourism versus agricultural work. Those with lower paying tourism jobs, for example women cooking and cleaning in hotels, were more likely to see their tourism job on par with or less positively than the arduous task of picking coffee. In contrast, men who were agricultural labourers could earn significantly more as porters and therefore generally saw their tourism work as a better option. While the economic reality was that most people needed to combine both forms of income to support their households, a generally favourable impression of tourism work aligns with community members’ expressed desire to further develop and expand ecotourism employment opportunities in and around the village.

6.0 Ecotourism as a Driver of Local Environmental Change

Research indicates that environmental initiatives are the result of many different factors and complex socio-ecological relations (West & Carrier, 2004). Ecotourism also appears to have played a large role in the knowledge and implementation of sustainable practices in San Gerardo. Community members interviewed highlighted the influences of direct employment, environmental education efforts of non-governmental organizations (NGOs) and the national park office, as well as interactions with tourists and with foreigners living in the village. A local restaurant owner and dairy farmer commented, “many tourists come and promote the idea to protect the environment and to tell some of us the problems that other countries have from not having conserved the environment and nature.” It is evident that the interaction of multiple, and at times competing, environmental discourses, has influenced individual and collective concerns for the environment in a localized context.

In San Gerardo, perceptions and uses of the environment have changed in relation to evolving external economic and social conditions. Locals described San Gerardo before the rise of tourism as a village where people struggled to make a living from agriculture and hunted for supplementary food. Land was deforested, access to markets was limited and secondary education was not available. Due to lack of economic opportunities, community members were migrating to the United States to pursue employment. Describing how many of these practices have changed through tourism, a local woman who made crafts to sell as souvenirs recounted:

Many years ago, people often hunted the animals, burned their properties and cut down the forests. And when tourism came to San Gerardo, it was because the tourists liked nature and the animals and clean water. So the people stopped destroying and started to conserve everything. Now we don’t have hunters here and the majority of people are allowing their farmland to reforest, so it has had a very positive impact.

The most important benefit of tourism according to community members was economic, but it was recognized that these alternative sources of income had facilitated nature conservation.

Community members were asked about environmental initiatives within their households, workplaces and organizations. There have been significant changes to waste management practices, from burning garbage to monthly truck collection and households bringing recycling to a small public recycling facility, which five families had worked together to install. A local hotel owner and representative of the garbage committee pointed specifically to the influence of tourists:

The tourists who come here are people who like wilderness and have a different conscience. You wouldn't see them littering and the people of San Gerardo have since been educated a lot on this issue. Because here you hardly see garbage in the street - everyone picks it up.

People who worked at hotels and restaurants listed recycling, composting and greywater management as practices carried out at their workplaces. Many of these practices are not yet seen in other villages in Pérez Zeledón.

Tourism is one factor impacting the knowledge of ecologically sustainable land use practices, including organic farming and reforestation. All household members interviewed had an understanding of organic production methods. Four households were making their own organic compost and two were producing organic coffee, even though it was more labour intensive, yields were lower and there was no extra premium paid by the main coffee cooperative in the region. Some community members produced organic vegetables for household consumption and local sale, citing health and environmental reasons, plus improved quality and taste of produce. While several factors are likely influencing knowledge of organic production, a vegetable grower highlighted tourist preferences, stating:

You hear that all the farms that the tourists go to are organic. When tourists see the word organic, it's really attractive to them. When they go to the market, for them it is more important to buy organic produce than anything else.

While most local people interviewed were in favour of organic practices, they also pointed out they were not always financially viable.

Another important land use change has been putting land aside for conservation purposes. A GIS analysis showed that forest cover around San Gerardo increased 10.8 percent between 1979 and 2007, compared to a mere 0.3 percent near the neighbouring community of Herradura (Marciano, 2010). While much reforestation in the area has been the result of land bought up for private and non-profit nature reserves, four of the local households or businesses interviewed had set aside parts of their farms for conservation purposes. One farmer, who also runs a restaurant, had designated twenty-one hectares of his farm for conservation as well as riparian planting. When asked his principal motivation for reforestation, which he had started thirteen years prior, he answered:

Since we have begun to believe in tourism, one now realizes it is necessary. In the past, people here used to cut down trees and burn and now we don't do either. Rather, we are reforesting. We maintain some pasture, but what is forest, we keep as forest.... We are not only protecting the forests but also the animals. Because these days we know that tourists come to see animals, like in Corcovado [National Park]. And here we have many animals, but we didn't appreciate them before. Now we do.

Two locally owned hotels were also generating tourism revenue from reforestation. One hotel owner gives farm tours of five hectares that he reforested following extremely low coffee prices in 2001, while another local hotel advertises tours of their reforestation project (Hotel de Montaña El Pelicano, n.d.).

In addition to the influence of ecotourism employment, NGOs and government departments associated with Chirripó National Park have carried out environmental education initiatives to encourage certain types of environmental behaviours. They have focused on reducing hunting and deforestation while improving waste management. A national park office employee explained, "I believe that there has been a cultural change....They [the local people] have adapted to the park, so for example at the moment we have porters who used to be hunters." Local peoples have been able to form strategic alliances with NGOs and state institutions by adopting discourses of sustainable development and environmentalism (West et al., 2006). In line with this, the Association of Porters has instituted a code of ethics where members caught hunting are ineligible to work for three months (Marciano, 2010). Porters therefore are involved with monitoring and reporting illegal hunting, linking these efforts to the opportunity for local people to earn income from the park.

Organizations and businesses in San Gerardo have attained sustainability certifications, which are used for marketing purposes. These range from a local certification run by the community's Chamber of Tourism, to the government's Bandera Azul Ecológica certification and the Costa Rica Tourism Board's Certification for Sustainable Tourism (CST) Program. In 2010, a San Gerardo hotel was the first in Pérez Zeledón to receive the CST certification, which has a more comprehensive set of objectives and a rigorous evaluation system (Hotel de Montaña El Pelicano, n.d.). Interviews suggested that multiple members of the community are aware that the continuance of visible environmental initiatives could affect the types of tourists they are able to attract. Despite this, there is evidence of negative impacts. Community members voiced the following concerns: that some of the hotels used cheap building materials and had inadequate septic tank systems; lack of land use zoning and planning; and, hikers eroding the soil, encroaching upon wildlife and generating waste within the fragile alpine environment of Chirripó National Park.

Community members were aware of the potential for larger-scale negative environmental impacts associated with tourism development. An important influence on the local Chamber of Tourism's strategic plan has been learning from other parts of Costa Rica, which members of the group had visited to witness the impacts of tourism first-hand. A representative of the Chamber of Tourism and local hotel owner described the mixed outcomes of tourism:

Guanacaste has also had an incredible growth in tourism, but for the big businesses, right? The transnational hotel owners are doing well, but everyone else is marginalized. And then what happened in Monteverde was that they had tourism growth but neglected the environment. The main reason to go to Monteverde was the natural environment, but it has changed a lot and now it's a very commercial zone with overdeveloped infrastructure. With the impact of tourism, it has lost the scenic richness that it once had, as have Manuel Antonio [national park] and La Fortuna [popular tourist district]. This is what we want to avoid here.

Despite Monteverde having been described as a successful example of sustainable development (Aylward et al., 1996; Báez, 2002), this local business owner viewed it otherwise. Being aware of the potential impacts of tourism development has propelled the Chamber members to actively define their goals and related strategies to meet them. Furthermore, these goals appear to be congruent with the views of other community members who also support the development of tourism in a way that capitalizes upon, yet protects, the natural environment.

Environmental conservation projects can change how local peoples relate with one another and with their surroundings (Carrier & West, 2009). Direct tourism employment and environmental education are factors that have shaped attitudes towards the environment in San Gerardo. The lifestyle transformations have been dramatic for some: from relying upon slash and burn agriculture techniques to provide a basic level of subsistence to maintaining a higher material standard of living through conservation. Several community members described their personal changes in circumstances. As noted by a man who now works in a reserve on the site where he used to live and clear land for agriculture: “Yes, I used to cut down and burn trees. It wasn't explained to anyone the damage that we were doing...Ten years ago I didn't know what looking after the environment was and now I have realized (laughs). Avoiding essentialisms is important in research regarding conservation, which takes place at the intersection of local people and broader politico-economic institutions. These interchanges shape how people view themselves and their environment, and how outsiders, in turn, view them (Carrier & West, 2009). For example, when one's economic livelihood is dependent on conserving nature for tourism, rather than modifying the environment for cultivation, one can afford the luxury of looking at nature in a different way.

7.0 Opportunities and Limitations of Ecotourism

There have been some spinoff economic benefits from ecotourism industries in San Gerardo and Chirripó National Park. While some people from neighbouring villages come to San Gerardo to work, for example, in hotels, others have sought to benefit from the tourist traffic coming past on their way to the national park. Along the main road, there is a small-scale micro-processing plant marketing the direct sale of local organic coffee and coffee farm tours, an artisanal cheese shop and a chocolate factory. In 2012, a weekly Sunday farmers' market was established in San Gerardo, selling a wide variety of locally-produced items from both San Gerardo and surrounding communities (Moss, 2012). Despite these initiatives, other villages in proximity to Chirripó National Park receive very minimal tourism activity compared to San Gerardo. Environmental problems with waste management, illegal hunting, forest fires and deforestation

have persisted in these villages. Both environmental and economic benefits for neighbouring communities have so far been limited.

A key question remains: What are the opportunities for other sustainable tourism sites in rural Pérez Zeledón that are not already a major gateway to the country's highest peak? Certainly other types of tourism independent of a national park could be developed. Through agritourism, which has been described as “tourist activities of small-scale, family or co-operative in origin, being developed in rural areas by people employed in agriculture” (Kizos & Iosifides, 2007, p. 63), communities can earn income from sharing aspects of their rural livelihoods. For example, in Quebrada Grande, northern Costa Rica, volunteers pay to stay with and experience the life of a farming family and participate in local labour, such as picking pineapples and milking cows (Jackiewicz, 2005). Wellness tourism, including yoga or meditation centres, has been established in some rural areas. As is the case with the yoga retreat in San Gerardo, these centres can have the added benefit of providing a market for local, organically produced food that they serve to guests. Other villages that are more easily accessible than San Gerardo from San Isidro have scenic agricultural landscapes with rolling hills and tropical plants that could be attractive for agritourism or wellness tourism. Agro-ecological tourism, showcasing sustainable agriculture, has been posited as a way to combine conservation and food security while supporting rural livelihoods (Addinsall, Weiler, Scherrer & Glencross, 2017). Tourism has influenced organic production in San Gerardo, therefore, it may also become a driver of sustainable agricultural practices elsewhere in Pérez Zeledón, both to attract tourists and respond to their demands.

With coastal tourism reaching saturation, and more expensive oceanfront property already bought up, these rural tourism options could become increasingly viable. In any case, for these forms of tourism to lead to sustainable outcomes, local input, income generation, access to information and educational opportunities are necessary (Fairer-Wessels, 2017; Kruger, 2005; Mattarita-Cascante et al., 2010). Capacity building, language training, marketing expertise, a thorough understanding of local regulations and investment capital are also required. Even a simple tourism operation such as a coffee farm tour requires substantial investment. Coffee tours are already offered in other areas near major airports or established tourism destinations surrounding San José and there are a number of options offered by expats and major coffee companies such as Café Britt. In San Gerardo, some local people have started to run farm tours, but only after years of experience in the tourism industry. A national park employee expressed concerns that San Gerardo had not yet attained a high enough standard of services:

The communities maybe don't have the structures or the logistical platform necessary to receive or encourage rural community tourism. Just because a group of tourists go to an organic farm doesn't mean that this farm is going to give them a good quality of service.

Combining an additional attraction such as heritage agricultural demonstrations would be an asset. For example, there has been a revival of traditional techniques for processing sugar cane using trapiches, an ox-drawn crusher to extract the sugar cane juice, and to boil it down into dulce, a local sweet. In San Gerardo, the local tourism chamber now advertises trapiche tours (Consortio Aguas Eternas, n.d.). Undoubtedly for some tourists there is a level of cultural capital associated with visiting a lesser-known coffee growing area, but its success will also be affected by accessibility from an international airport or other tourism sites.

8.0 Alternative Sustainable Development Options

One of the major concerns expressed by community members in San Gerardo was the vulnerability of a lack of alternatives to tourism, particularly given the state of agriculture. International coffee prices fluctuate widely year-to-year and coffee only grows well within a narrow temperature range, therefore is susceptible to climate change (Allison, 2011). Inflated real estate prices, largely due to foreign ownership of land, have made it increasingly difficult for local people to buy land for agriculture, or to retain it. When seasonal downturns of tourism and input-intensive stages of agricultural production coincide, families can experience temporary economic hardships. Given these limitations of both ecotourism and conventional agriculture, other options for sustainable rural development in Pérez Zeledón are being explored.

The following two alternatives, niche agricultural production and participation in Payment for Environmental Services programs, show some promise for sustainable development, but as with other options, their success will likely be context-specific. The cultivation of niche agricultural products provides additional income to local people, both in itself and when combined with tourism ventures. For the organic coffee association on the road between the main centre of San Isidro and San Gerardo, crop diversification was also important. Despite receiving almost double the price for their organic coffee compared to conventional coffee, it had not been very profitable due to decreased yields while they slowly build up soil health. According to an association member, a significant source of income was from selling organic baby bananas grown within the coffee fields to a European company. Another member of the organization also sold organic vanilla pods and black pepper to a Canadian buyer. High value, specialty items can provide a viable alternative to traditional export crops, particularly if direct links with buyers are established.

Another path towards sustainable rural development that is complementary to ecotourism, is Costa Rica's national Payment for Environmental Services (PES) program, which provides a financial incentive for landowners to engage in forest conservation and reforestation. Costa Rica's PES system was established in 1996, is managed by the National Forestry Finance Fund and financed by a combination of a gasoline tax, as well as contributions from the state, national and international organizations, international institutions and private businesses (National Forestry Finance Fund, n.d.). Between 1997 and 2012, the program has involved nearly one million hectares nationwide. In addition, 4.4 million trees were planted under agroforestry systems—for example, shade-grown coffee or providing shelter for animals—from 2003 to 2012 (Porrás, Barton, Chacón-Cascante, & Miranda, 2013).

Different ways of utilizing the Costa Rican government's Payment for Environmental Services (PES) program will also provide sustainable revenue generation. The largest, foreign-owned reserve in San Gerardo was participating in the scheme. However, a local farmer and restaurant owner who had put aside twenty-one hectares of his land for conservation purposes expressed that inadequate financial returns were a barrier to participation. The representative of a non-profit reserve thought that there was too much paperwork involved for individual smallholder farmers, who also may not have the required legal title to their land. Elsewhere in the canton, farming families were signing up to PES via the local coffee cooperative, CoopeAgri. In 2013, CoopeAgri members had a total of 10,069 hectares under protection, 430 hectares in natural regeneration, 111 hectares in reforestation and 217,122 trees planted in agroforestry systems. The total earnings from the government program were approximately USD\$772,500, which was distributed to 418 beneficiaries (CoopeAgri, n.d.). A

representative of the non-profit reserve in San Gerardo detailed another interesting example of an effective use of the PES program: a group of Costa Rican professionals had bought land and set up a small commune called Durika in the mountains southeast of San Isidro, where they aimed to live largely self-sufficiently and therefore could reinvest revenue from the PES program into buying more adjacent land. Therefore, PES offers some opportunities for Costa Ricans to receive financial compensation for reforestation and sustainable agricultural practices.

9.0 Conclusion

Rural household income strategies are defined by opportunities that are determined and subsequently affected by global, national and local circumstances. Uncertainties, such as the impacts of climate change on crops or greenhouse gas reduction policies on aviation, mean that it is difficult to predict how either tourism or agriculture in rural Costa Rica will fare in the long term. The history of Costa Rica, particularly the coffee-growing region of Pérez Zeledón, is important to understand the economic and social changes affecting participation in agricultural production and work in ecotourism. The economy differs across the canton, due to geographical reasons and the history of development. In San Gerardo, ecotourism has now come to form a major component of the local economy. With agriculture in decline, due to global markets, national agricultural policies and local circumstances of foreigners purchasing land, many rural families now depend upon tourism as a complementary source of income. For the majority of households in San Gerardo, tourism income alone is insufficient, so engagement in agriculture and other wage labour jobs also remains a necessary component of household income strategies. Youth in San Gerardo are often encouraged to seek higher education in order to work in secure, salaried positions in San Isidro or other urban centres.

Expanding sustainable tourism or agricultural options elsewhere in rural Pérez Zeledón in an equitable manner will require addressing imbalances in the access to information and marketing expertise, including internet access, computer skills, English language skills, and even literacy. Being able to profit more from agriculture and in different ways, such as niche agricultural production, agritourism or rural homestays, can help local people to retain their land and rural ways of life. The consequences could have positive environmental impacts especially if agro-ecological techniques are used or if reforestation is facilitated by higher profit margins and government support. At a social level, these industries also benefit local communities by providing income locally and reducing the need for migration. At the time of the research, community organizations were negotiating the concession of services operated by the Ministry of Energy and Environment within Chirripó National Park. This has since been granted, significantly expanding the community's involvement in the provision of porter, guide, gear rental and cooking services to now also operating the lodge and store within the national park.² All staff members are from the local area, principally San Gerardo and the neighbouring Herradura villages (Consortio Aguas Eternas, n.d.). As demonstrated in the case of San Gerardo de Rivas, rural communities can pursue sustainable tourism as a strategy to

² Reflecting the local organizations' intention to support local producers, organic ingredients grown by local people are sourced for meals, while the small store sells various items including crafts made by the local women's group.

complement agricultural income, while maintaining rural livelihoods and supporting forms of environmental protection.

This study was faced with a number of limitations. As an exploratory study, a number of issues were examined at a peripheral level, affecting the depth of the data. Furthermore, the study was conducted in only one village, at a specific point in time, making it more difficult to make comparisons or to suggest regional trends in ecotourism. However, this study does help us to better understand a rural village economy in transition. There are several issues that were identified that would be worthy of greater scholarly attention. These include: (a) the relationship between the national park administration and community members in the concession of services within the national park, (b) changing gender roles and how this affects women's social and economic wellbeing, (c) the role of carbon credits or other economic instruments in land use changes, (d) the potential of agro-ecological niche production and tourism, and (e) the role of NGOs in community development processes as well as their influence on government policies.

This research sought out perspectives of local peoples' experiences with ecotourism. Paying closer attention to the voices of community members, who are arguably the most affected by tourism development practices, helped to shed light on how they themselves see these processes and the ways in which they negotiate the direction of development in the context of globalization. Importantly, it allowed for an analysis of the ways in which ecotourism is creating more equitable and sustainable livelihoods or instead contributing to further social differentiation and environmental degradation. This study demonstrates that local people are not passive actors acquiescent to how global tourism industries are shaping development and their rural livelihoods. In direct contrast, from their various positions both within households and in their community, local peoples are actively influencing, and inevitably shaping, these complex processes. Ultimately, continuing to define what types of tourism they wish to attract and how to manage it as part of their rural economy will enable the community of San Gerardo to optimize their benefits from tourism and avoid the adverse impacts.

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