

Through the eyes of the locals: The role of ecotourism in the Monteverde region of Costa Rica

Jenna Diggs

Departments of Biology and Spanish, Bowdoin College

ABSTRACT

Identifying economic and environmental gains and losses from the ecotourism industry in the Monteverde region of Costa Rica is easy because these factors are well studied. Recognizing the influence of ecotourism over political, social and cultural factors of the region can be more difficult. One way to study all of these aspects is to gather information from the locals themselves. The majority viewed it as the most important industry and maintained that the natural and social environment had changed significantly in their time spent living in Monteverde. Also, their jobs depended on the industry. The participants in the study generally viewed ecotourism's impact on economic, environmental, political, social and cultural factors of the Monteverde region as positive, but that does not discount opposing views. When asked how they would improve the industry, common responses included infrastructure improvement and planning, increasing tourist numbers, price reductions and promotion of education for locals and tourists.

RESUMEN

Identificando los beneficios económicos y las perdidas ambientales de la industria de ecoturismo en la zona de Monteverde en Costa Rica es fácil porque estos aspectos son investigados muchos. Es más difícil de reconocer la influencia de ecoturismo sobre los aspectos politicales, sociales y culturales en la zona. Una manera de investigar estas cosas es simplemente entrevistar a los habitantes de la región. La mayoría pensó que el ecoturismo era la industria más importante de Monteverde y declaró que el medio ambiente y el ambiente social ha cambiado mucho en su tiempo pasado viviendo en la región. Sus trabajos también dependaron de la industria. Por lo general, los que estaban entrevistados creeron que el ecoturismo afectó los aspectos económicos, ambientales, politicales, sociales y culturales de la región de Monteverde. Cuando preguntaron cómo mejorarían la industria, las respuestas más notados incluyeron mejorar la infraestructura y su planeamiento, traer más turistas a la zona, reducir los precios y finalmente promover educación entre los habitantes de Monteverde y los turistas.

INTRODUCTION

Tourism plays an invaluable role for the economies of developing nations (Vanasselt, 2000, Strasdas 2001). Ecotourism, or nature-based tourism, is the dominant form in tropical countries due to the fact that they are comprised of a rich supply of flora and fauna (Jacobson 1994, Strasdas 2001). Ecotourism accounts for 40-60% of the 444 billion USD generated annually from all kinds of tourism (Vanasselt 2000). Eighty percent of island inhabitants of the Galapagos archipelago rely on their occupations in the

ecotourism industry for their income (Vanasselt 2000). In 2007, 1.9 million tourists brought in 1.9 billion USD to the economy of Costa Rica (Estado de la Nación 2007).

These economic gains from ecotourism can provide an incentive to conserve either consciously or by default. In order to ensure continual tourists presence, a natural environment must be maintained and the wildlife protected. Conservation can also happen indirectly when economic reward is attainable. For example, as the mainstay of the economy of Monteverde region of Costa Rica transitioned from dairy farming to ecotourism in the 1980s, pastures were converted back to secondary forest as farmers sold their lands and joined the ecotourism workforce (LaVal 2006).

While it promotes economic prosperity and can promote conservation, ecotourism can still be quite disruptive to ecosystems. Naturally, its growth in an area is coupled with more development and more people, which usually lead to more contamination (Honey and Littlejohn 1994, Vanasselt 2000, Martin 2004). Studies have shown that runoff generation and soil particle detachment rates are higher on trails than in patches of forest (Wallin and Harden 1996). Increased runoff causes decreased nutrient capture by plants. Additionally, tourism-related developments and increased human populations affect habitat preferences and productivity of Malaysian plover birds in Thailand (Yasue and Dearden 2006). These birds prefer habitats with low levels of human disturbance and low abundance of large trees. Increasing human entry into their beach habitats is coupled with homogenization and dominance of tall trees.

Another example of ecotourism disrupting natural ecosystem processes is in the case with the green turtles in Tortugero, Costa Rica. The locals traditionally killed green turtles and robbed their nests for food to be sold for a profit (Hardman 2006). Conservation efforts over the years eventually curtailed mass turtle poaching at the same time that ecotourism in the area grew due to the desire of ecotourists to see the turtles nesting. Populations of green turtles have been somewhat stabilized and Tortugero accumulates more revenue from ecotourism than it ever did by hunting (Hardman 2006). However, a new problem exists in which nesting turtles are disturbed by the flashlights, camera flashes and physical touching by ecotourists (Jacobson and Lopez 1994). Sometimes the presence of ecotourists on the beaches where the green turtles nest actually deters them from coming ashore to lay their eggs.

On the contrary, changes in bat populations in the Monteverde zone of Costa Rica cannot be correlated with ecotourism or development (LaVal 2006). Since the 1970s, the capture rates of bat species were constant, thereby suggesting that the habitats of these species were healthy because numbers were not declining. The diversity of bat species increased overall from the 1970s until 2000.

While economical and environmental aspects of ecotourism are readily identifiable and well studied, discerning the impact of ecotourism on social, cultural and political aspects of an area can be more difficult because it is not very well studied. The best way then to gain information about the latter is to ask the locals of an area themselves. Despite the poor and often non-existent paved roads, over 250,000 tourists annually flock to Monteverde, Costa Rica, which houses some 5000 permanent residents (Monteverde Info 2007, Rasmussen 2008). Ecotourism has a large impact on the small community of Monteverde and it was my goal to determine the local opinion on the industry.

METHODS

Study Site and Participants

Between April 20 and May 9, 2009, I interviewed 73 locals, or people of any nationality living in the area who did not consider themselves tourists or students, in the Monteverde region, Puntarenas Province, Costa Rica. Locals lived in the towns of San Luis, Monteverde, Cerro Plano, Santa Elena, Cañitas, Los Llanos and Guacimal. A wide range of demographics was interviewed in order to gather a well-rounded set of opinions.

Questionnaire

The questionnaire, consisting of 16 questions in Spanish, focused on demographic variables, views on the impact of ecotourism in the region of Monteverde from various standpoints, including economical, social, environmental, cultural and political, and suggestions to improve the ecotourism industry in the region (Appendix 1). Knowledge of ecotourism was addressed in the questionnaire, but will be referred to simply as tourism in this paper because all the locals interviewed knew what tourism is, but not all knew what ecotourism is.

After asking locals about their perceptions on tourism from the economical, social, environmental, cultural and political standpoints, educational levels of those interviewed were compared against their responses to the questions to see if response was dependent upon level. Education levels were broken down into the following categories: none, primary, high school for some time, high school graduate, university graduate and graduate school (either masters or doctorate).

RESULTS

Demographics

Twenty-six percent of interviewees lived in Santa Elena, 25% in Monteverde, 21% in San Luis, 19% in Cerro Plano, four percent in Cañitas, two percent in Los Llanos and one percent in Guacimal. The mean age was 37 years and the mean time of a local living in Monteverde was 20.3 years. The mean income could not be determined because not every person provided that information. Three percent of interviewees had no schooling and 25% attended primary. Fourteen percent attended high school for some time while 21% graduated from high school. Nineteen percent graduated from a university and the same amount attended graduate school.

Most Important Industry

Tourism is considered the most important industry in the Monteverde region ($\chi^2 = 64.71$, d.f. = 4, $p < 0.0001$, Fig. 1). Responses to this question were categorized into the following for simplicity: tourism (including those that said adventure parks and

ecotourism), the Cheese Factory, the Monteverde Cloud Forest Reserve (no one mentioned any other private reserve), Super Compro and the hotel industry.

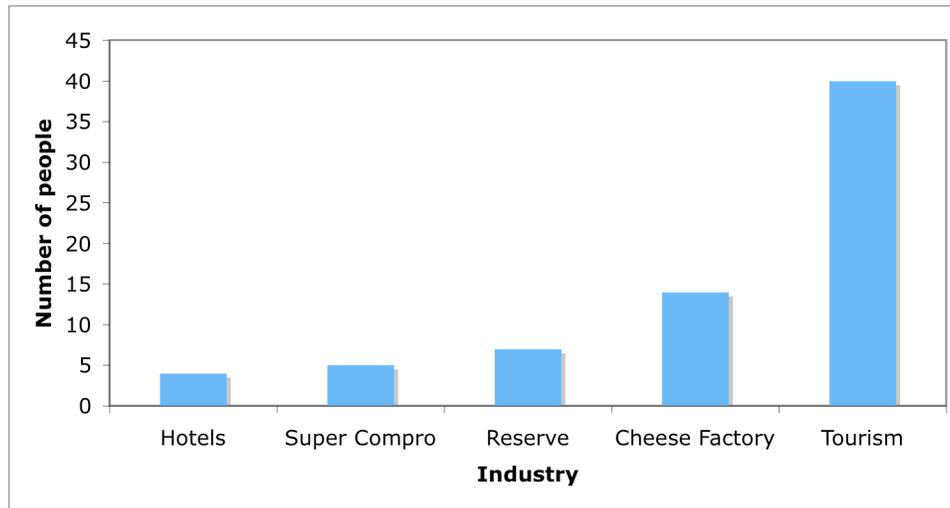


FIGURE 1. Local view on most important industry in the Monteverde zone of Costa Rica. Most responded tourism.

Changing Environment

Most believed that the environment had changed in their time spent living in Monteverde ($\chi^2 = 42.97$, d.f. = 1, $p < 0.0001$, Fig. 2).

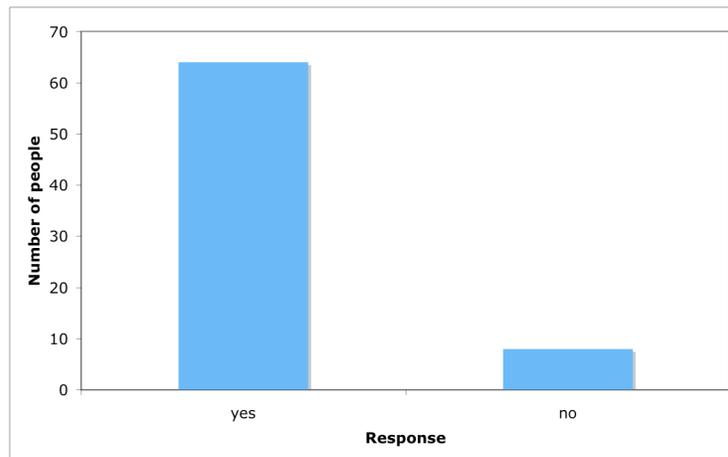


FIGURE 2. Local response to changing environment in the region of Monteverde, Costa Rica. The majority maintained that the environment had changed in their time spent living in the region (mean time in Monteverde = 20.3 years).

Of those that responded affirmatively, eight percent believed that there were more cars, 11% thought that there were biodiversity changes, 19% believed that population levels had increased, 34% said contamination levels had increased, 38% asserted that

climate had warmed and 41% stated that infrastructure had increased (Fig. 3). In terms of changes in the social environment, ten percent thought that there was more theft and 25% maintained that there were more drugs in the area. According to the locals, biodiversity changes included decreased amounts of frogs, toads and birds that were once quite prevalent, altitudinal shifting of birds, increased harm of animals to crop production and general decrease in total amount of biodiversity in the region. Contamination consisted of trash, pollution, grey water, and deterioration of natural water sources.

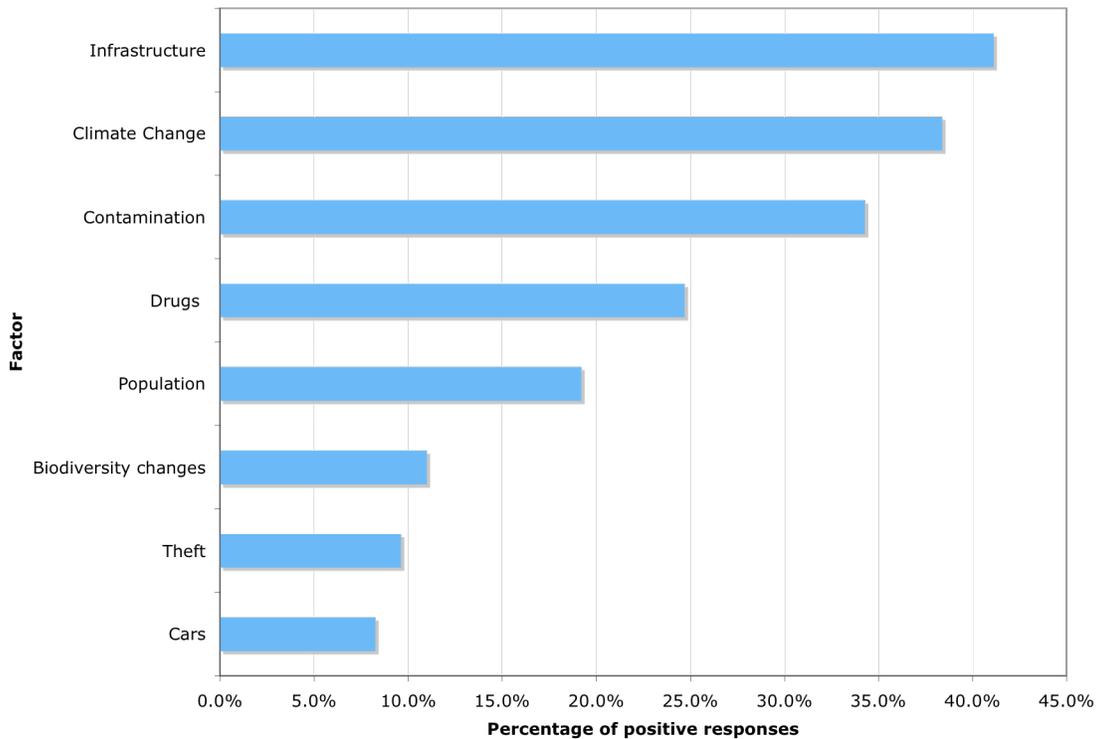


FIGURE 3. Local view on social and environmental changes in the Monteverde zone, Costa Rica. Locals who responded affirmatively that the environment had changed were asked to provide examples as to what factors had increased.

Interaction with Tourists

Eighty-one percent responded that they directly interacted with tourists in their occupations ($\chi^2 = 27.74$, d.f. = 1, $p < 0.0001$, Fig. 4). Similarly, most believed that their job security depended on tourism ($\chi^2 = 23.02$, d.f. = 1, $p < 0.0001$, Fig. 4). Of the remaining 19% that do not directly interact with tourists in their job, 44% still replied that their jobs relied on tourists coming to the Monteverde region.

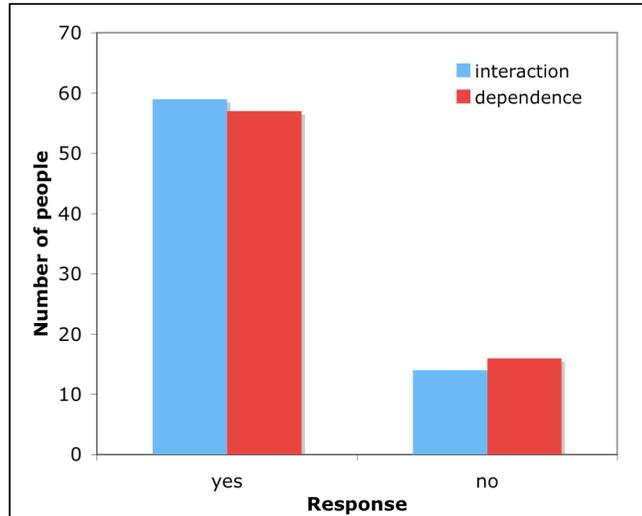


FIGURE 4. Locals' responses to direct interaction with tourists in their occupations and jobs dependent upon tourists coming to the zone of Monteverde, Costa Rica. Most said that they interacted with tourists in their everyday jobs (blue) and that their jobs depended on tourists (red).

The Impact of Tourism

Interviewees were asked about their views on tourism in the Monteverde zone from economical, social, environmental, cultural and political standpoints. They responded that tourism affected a certain aspect either positively, negatively, both, not at all or they did not know (Fig. 5). In general, responses seemed more positive than negative.

When education level was incorporated, the impact of tourism from social and cultural standpoints was affected (social: $x^2 = 33.17$, d.f. = 20, $p = 0.03$, Fig. 6; cultural: $x^2 = 37.26$, d.f. = 20, $p = 0.01$, Fig. 7).

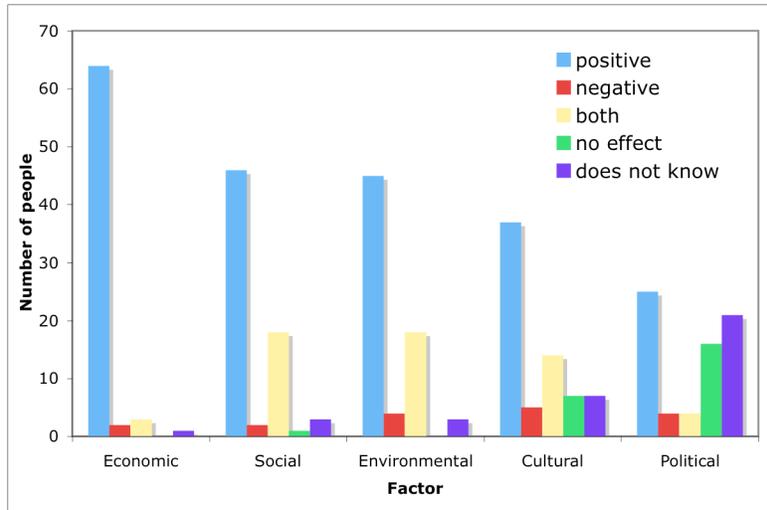


FIGURE 5. Local view on impact of tourism in the region of Monteverde, Costa Rica. For each factor, locals responded that tourism affected it positively, negatively, in both ways, or not at all or they did not know

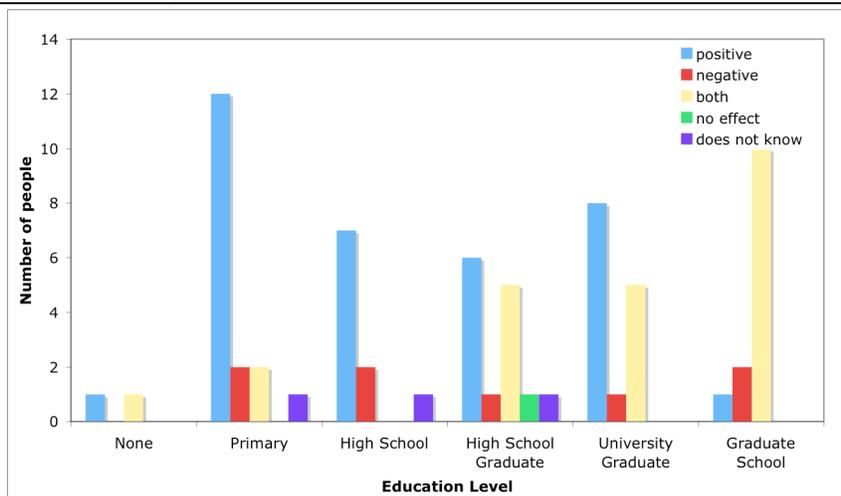


FIGURE 6. Education level affected the responses of participants when they addressed the affects of tourism on social factors in the Monteverde region of Costa Rica.

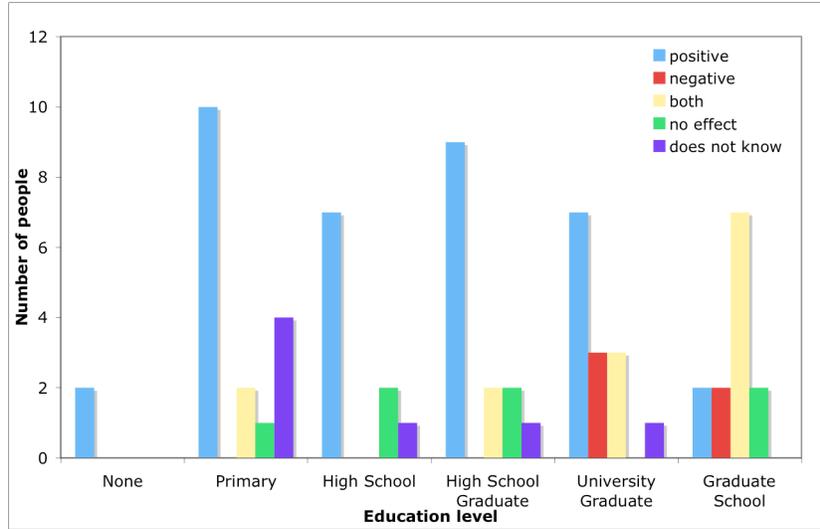


FIGURE 7. Level of educational achievement affected locals’ responses to the impact of tourism on the local culture of the Monteverde region of Costa Rica.

Suggestions to Improve Tourism

A relatively large percentage of people responded that infrastructure and infrastructure planning should be improved (33%). Specifically, roads could be paved and sidewalks created. Developmental planning like installment of better water treatment plans and recycling programs could be improved. Regulation of construction projects should also be instituted. In addition, locals thought that more tourists should be brought in (26%), prices should be lowered (18%), and more education needs to be promoted among locals or tourists or both (12%) (Fig. 8).

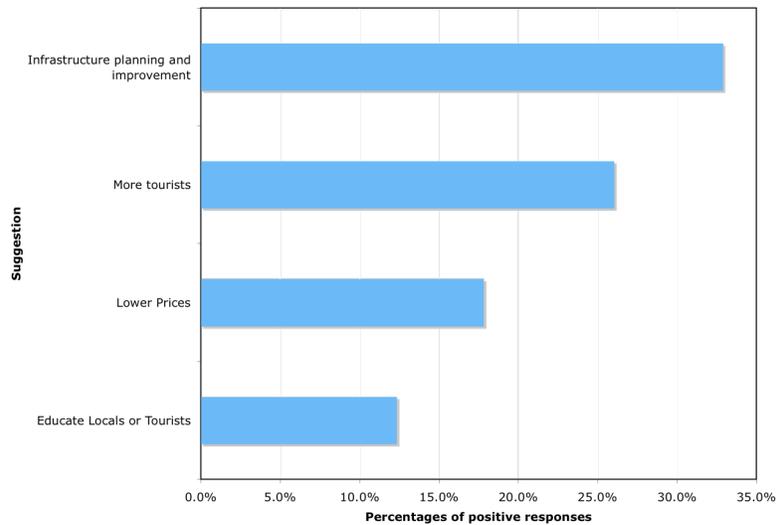


FIGURE 8. Locals’ suggestions to improve the tourism industry in the zone of Monteverde, Costa Rica. The above suggestions were mentioned more than a handful of times.

DISCUSSION

According to local opinion, tourism plays a very important role in the structure and function of the Monteverde region of Costa Rica. First and foremost, tourism is the primary source of economic prosperity for the zone (Nadkarni and Wheelwright 2000) and most locals agreed. They said that the industry provides a vast amount of employment opportunities and steady and high levels of income—level much higher than the old economy of dairy farming could ever provide. Moreover, some participants noted that with the decline persisting in the world economy, tourism has suffered. Twenty-six percent of locals interviewed thought more tourists needed to come to Monteverde to offset the recent economic crisis. Apparently, 120 El Establo Hotel employees were fired because there was no work for them. Furthermore, one complaint about tourism in an economic sense was that its rise has been coupled with a rise in prices. Eighteen percent of participants stressed the need to reduce prices in the region. Some interviewees worried that if prices continue to rise, Monteverde will start losing tourist visits.

Most interviewees directly interact with tourists in their everyday occupations. Of the remainder that does not, 44%, including restaurant cooks, house cleaners, and teachers, still responded that they rely on tourism for job security. Cooks would have no job without tourists venturing to the restaurant, while house cleaners maintained that they received their monthly incomes from employers who run businesses tailored to attract tourists. The teachers asserted that most families of the students work in the tourism industry and the income those families make pays tuition.

Tourism influencing the amount of money that enters an area goes hand in hand with the politics of that area. Those who replied positively stressed that conservation efforts increase, development takes place and healthy relationships form between Costa Rica and other countries. The cash value associated with tourism gives the government an incentive to conserve in order to keep a steady flow of tourists coming into the region. Furthermore, more money also allows for development projects to be constructed in less cosmopolitan areas according to some interviewees. Finally, good relationships have been established with other countries as a result of the movement of tourists back and forth across borders. Several participants in the interview also said that tourism has led to the alterations of laws (e.g., tourists can spend time in Costa Rica for three months instead of 15 days) and the implementation of strong policies that succeed in other countries.

The locals who viewed tourism as negative had several different reasons. They included the beliefs that Costa Rica depends too much on tourism to enhance the economy, that foreigners purchase too many vacation homes on high quality land and that more organization and authority needs to be implemented for development projects. An example for the last reason is that Santa Elena is managed by Puntarenas and Puntarenas by a larger force in Costa Rica (Martin 2004). There exists a large disconnect between these three entities, and consequently, management of Santa Elena can often be poor.

The majority of locals said that tourism affects the environment positively. Locals believed that tourists come to the Monteverde region to see and learn about the natural ecosystems and they feel inclined to preserve them. Most argued that tourists care for the environment better than the locals. Furthermore, while tourism can promote conservation, it is only natural that as the industry grows, population, development, and

contamination also increase (Honey and Littlejohn 1994, Vannaselt 2000, Martin 2004). Most interviewees agreed that the environment had changed significantly in their time spent living in Monteverde. Examples included higher temperature, increased population levels and more infrastructure, cars and contamination. Studies have shown that these changes in abiotic factors can strongly and negatively impact the flora and fauna of natural ecosystems. Eleven percent even declared that the biodiversity of the Monteverde region had changed over time. These changes included decreased amounts of frogs, toads and birds that were once quite prevalent, altitudinal shifting of birds, increased harm of animals to crop production and general decrease in total amount of biodiversity in the region. Scientific literature gives evidence to these observation in that in the past few decades birds have moved up in elevation (Pounds *et al.*, 1999) and many amphibian species have declined (Pounds *et al.*, 2006).

More crime and drugs over the years led a fair amount of locals to declare that tourism has impacted social aspects of the zone negatively. The party scene of Santa Elena has apparently eroded the values and relationships of young people with others. A few of the interviewed even mentioned that the rise of tourism has been paralleled with the rise of prostitution. Despite these negative aspects, the general trend was that locals viewed tourism as positive from a social standpoint because tourism promotes more education among both locals and tourists and makes the locals worldlier. Education level of the participant influenced his response. Those who only went to primary school mostly replied that tourism positively impacted society while locals with higher levels of education often said tourism affected social factors both positively and negatively. More education might suggest stronger ability to distinguish the positive and negative effects of the industry on social aspects. The same could also apply to the notion that level of education also influenced responses of participants when evaluating impact of tourism on culture.

The reviews on culture seemed more mixed, but the overriding trend was still that many people viewed tourism's impact on culture as positive. The consensus was that tourism allows for an exchange of cultures. Many locals in the region host students or volunteers and they all agreed that these happenings make way for valuable and healthy experiences for both parties. Finally, a large portion also said that the tourists like to witness the local culture and that subsequently prompts local school children to put on dance concerts for foreigner enjoyment.

The participants interviewed would also agree that tourism has negatively impacted the local culture. Some worry that survival of the local community is threatened because tourism grows at a rate faster than the community evolves (Honey and Littlejohn 1994). According to Alan Masters, parents used to chaperone their kids at dances and boys were expected to ask the parents if they could dance with their daughter. He also said that when he got married in a February, the Cheese Factory located special cream for his cake, even though the product is hard to find at that time of year. These things would not happen today and certainly close relationships with others have grown more distant just because there so many people coming into the region every day.

As is evident from the above summaries, locals maintain diverse opinions about tourism. The vast majority would agree that tourism impacts the economy positively. Money generated from the industry directly affects decisions made in local or regional governments—decisions that affect the environment. While the majority argued that

tourists care for the environment, studies have shown that its rise is paralleled with a rise in development and contamination (Honey and Littlejohn 1994, Vannaselt 2000, Martin 2004). These may have adverse effects on the flora and fauna of the region. Finally, there were both positive and negative views on the impact of tourism on social and cultural factors of Monteverde. This is understandable in that although foreigners entering a region allows for more worldliness and sophistication of the locals, the foreigners still bring their own traditions and habits that may harm local customs and relationships.

In sum, the rise of tourism in the 1980s opened up a whole new world for the locals once hidden high in the Tilarán Mountains. For better or for worse, Monteverde is a changed place. Certainly, though, it is a more prosperous one economically.

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APPENDIX 1. Questionnaire used to interview the locals of the Monteverde region of Costa Rica.

1. Sexo: Masculino o femenina
 2. ¿Cuántos años tiene?
 3. ¿Cuál es su nacionalidad?
 4. ¿Cuál fue el nivel de educación más alto que obtuvo? (Escuela primaria, escuela secundaria, universidad, u otros títulos universitarios).
 5. En su opinión, ¿cuál industria es más importante en Monteverde?
 6. ¿Por cuánto tiempo ha vivido Ud. en Monteverde?
 7. ¿Piensa Ud. que el medio ambiente ha cambiado mucho durante su tiempo pasado viviendo en Monteverde? (Sí o No). Si Ud. respondió sí, ¿qué ha cambiado?
 8. ¿Dónde vive?
 9. ¿Cuál es su trabajo y dónde trabaja?
 10. ¿Cuál es su ingreso mensual en colones?
 11. ¿Se relaciona Ud. con turistas en su trabajo? (Sí o No).
 12. ¿Cree Ud. que su trabajo depende de la llegada de turistas a Monteverde? (Sí o No).
 13. ¿Piensa qué Monteverde depende de la industria del turismo? (Sí o No).
 14. ¿Conoce lo que es el ecoturismo? (Sí o No). Si respondió Sí, ¿puede escribir una definición corta de ecoturismo en sus palabras?
 15. ¿Cómo describiría Ud. el impacto del turismo en su vida viviendo en Monteverde? Para cada aspecto abajo, por favor, explique si el turismo tiene un impacto positivo o negativo y por qué. Puede dar ejemplos específicos si ayudaría su respuesta.
- Económico:
- Social:
- Ambiental:
- Cultural:
- Político:
16. ¿Cómo podría mejorar la industria del turismo en Monteverde?