

THREE-TIERED APPROACH TO ECOTOURISM RESEARCH:
META-ANALYSIS, STATISTICAL ANALYSIS,
AND FIELD STUDY

by

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A thesis submitted to the Graduate Council of
Texas State University in partial fulfillment
of the requirements for the degree of
Master of Arts
with a Major in Anthropology
August 2014

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ACKNOWLEDGEMENTS

I would like to thank all who participated in this project, be it through e-mail correspondence or filling out questionnaires considering the importance of primary data for a project like this. I would also like to thank Rainforest Partnership for allowing me to work alongside them and the communities they work for, as well as my advisor Dr. Elizabeth Erhart for her continued support for this project.

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LIST OF ABBREVIATIONS

Abbreviation	Description
CMPA	Community Marine Protected Area
CONAF	Corporación National Forestal (National Forest Corporation, Chile)
CPA	Community Protected Area
CRC	Costal Reef
CS	Case Study
MPA	Marine Protected Area
NGO	Non-government organization
RML	Mapu Lahual Network of Community Parks
RP	Rainforest Partnership
UNDP	United Nations Development Programme

ABSTRACT

Community-based ecotourism has the capacity to achieve all three sustainability factors: economic, social, and environmental. It is through the emergence of sustainability science that this paradigm has begun to manifest on a large scale. Ecotourism development is a manifestation of the growing ecological paradigm that views humans as having a responsibility to live within, rather than dominate, their natural environment.

Through a meta-analysis of 30 different community-based ecotourism enterprises located in terrestrial and marine protected areas in biodiversity hotspots around the world, and through a field study located in the cloudforest of the Peruvian Amazon, this thesis demonstrates support for community-based ecotourism as a method for achieving sustainability. Through analyses in this thesis, it is evident that sustainable development can be achieved through community-based ecotourism, and more importantly through the empowerment of local populations in remote areas of floral, faunal, and marine biodiversity.

CHAPTER 1

Introduction

The focus of this thesis is sustainable development and community-based ecotourism (CBE), which utilizes a bottom-up organizational structure (Jones 2005). The bottom-up approach involves the host populations in the development, ownership, and management of the ecotourism enterprise (Backman, et al. 2000). To be considered a CBE enterprise, three main aspects must be achieved: protection of the environment, creation of economic incentives to the host population as well as preserve local culture, and provision of opportunities for education (Blangy and Mehta 2006). The main question of this thesis is: what factors may contribute to a successful community-based ecotourism enterprise?

This thesis is divided into three parts. Part 1 includes the meta-analysis of thirty CBE case studies to identify various phenomena that occur during the longevity of the enterprise, and see if those phenomena occur consistently within the case studies. Part 2 contains the field study completed in Austin, TX and with two communities in the Peruvian cloudforest. It is one thing to observe phenomena that occur in literature, but being able to see the same types of phenomena in the field add more legitimacy to the factors being observed. Part 3 contains the Discussion and Conclusion.

It is my hope that, through incorporating both a meta-analysis and an applied approach together, a more complete picture of the economic, social, and environmental conservation initiatives, successes, and possibilities that community-based ecotourism has to offer will be better understood. Each part of this project has a purpose, which is to

create a database of knowledge about what has worked and why within the industry of community-based ecotourism so that more successful enterprises, which adhere to the standards of sustainable use, will continue to develop. When examples of good practice are circulated, they can be replicated. This replication, I hope, will help reduce the failure rate of community-based ecotourism endeavors and increase their success stories, leading to more possibilities for sustainable development and best practice for community-based ecotourism.

Empowerment of the host community is necessary for a community-based ecotourism enterprise to achieve longevity, and more importantly, to remain community-based (Scheyvens 1999). My hypothesis is that the empowerment of the host community within the infrastructure of community-based ecotourism is the driving force for the success of a community-based ecotourism enterprise. I will present my hypothesis through examination of a meta-analysis and a field study, both centered on community-based ecotourism development, and provide recommendations for the creation of future sustainable development techniques.

Sustainable Development

Sustainability studies have become common within academia, government, and non-government organizations (Bossel 1999; Margoluis 2000; Michalos, et al. 2010; Moore 2005). Sustainability initially gained international acknowledgement from the Bruntland Report; however, the ideals within sustainability studies have roots within the theoretical models of deep ecology (Adams 2003), cultural theory (Milton 2013), economic theory (Heal 2000), and the laws of thermodynamics (Rees 1990). The basis of sustainability comprises three main elements: economic sustainability, social

sustainability, and environmental sustainability (Stronza 2001). In order for a development technique to be defined as sustainable, it must address all three aspects (Reimer and Walter 2013; Stronza 2001).

Sustainability, as defined by Holling (2001), is the ability for the project being implemented to be maintained over time and space, through its initial implementation and trial phases. Sustainability coupled with development, being the implementation of some opportunity, creates a partnership where the end result of the sustainable development technique is to create an opportunity that will last (Ehrenfeld 2008; Holling 2001). However, herein lies a topic of debate about the contradictory nature of the term ‘sustainable development’: sustainability advocates for environmental protection, but development requires expansion of the enterprise in question in order to achieve economic and social sustainability (Redclift 2005).

A better, older, definition of sustainability is offered by Rees (1990), who states that sustainability acknowledges the transformative nature of society, and at the same time natural ecological systems, so that growth is mediated by ecological carrying capacity. Sustainable development is the result of a paradigm shift in consumption, where consumption is limited to the carrying capacity of the natural world and not an exaggerated rate of demand from society (Rees 1990).

Community-Based Ecotourism

Ecotourism is receiving significant attention because of its supposed ability to achieve all three aspects of sustainability, and it is one of the fastest growing divisions of the tourism industry (Blangy and Mehta 2006; Perkins and Brown 2012; Peterseil, et al. 2004). Ecotourism is known by different names, such as adventure tourism (Cheia 2013;

Diamantis 1999; Wood 1998) and volunteer tourism (Bossel 1999; Gray and Campbell 2007; WWF 2003), but they all include similar, if not the same, requirements to be identified under the rubric of ecotourism. The goal of ecotourism is to create a business that allows the host population to create income that does not deteriorate the natural environment to the extent of their previous income habits, and at the same time generate a sustainable amount of income that can support the host communities (Chiutsi, et al. 2011; Liu 2009).

Community based ecotourism (CBE), a bottom-up managerial structure form of ecotourism, involves the host populations in the development, ownership, and management of the ecotourism enterprise (Backman, et al. 2000). To be considered a CBE enterprise, three main aspects must be achieved: provision of protection to the environment, creation of economic incentives to the host population as well as preserve their culture, and provision of opportunities for education, be it environmental or preservation of local knowledge (Blangy and Mehta 2006).

Part I

META-ANALYSIS

CHAPTER 2

Methodology

Many ecotourism enterprises have been established since the 1950's, and in 2000, ecotourism was the fastest growing tourism industry (Amaro 1999; Weinberg, et al. 2002). It seems like ecotourism proves to be a viable method for sustainable development, but it still receives significant criticisms from academia referring to its inability to provide economic and social support while *simultaneously* conserving natural environments (Diamantis 1999; Stronza 2001). Taking such criticisms into account, it is would be beneficial to analyze economic, social, and environmental factors through a meta-analysis of ecotourism enterprises using case studies, with both successful and unsuccessful attempts, in order to observe and analyze phenomena that occur during and after developmental stages of a community-based ecotourism business. This chapter will explain the research methods used in collecting and analyzing the case studies obtained.

Using a meta-analysis to research community-based ecotourism case studies permits identification of common phenomenon related to the creation, longevity, or disruption of the ecotourism enterprise. By having a database of sorts containing these phenomena, positive or negative, future practitioners of this type of sustainable development technique may be able to streamline their management plans in preparation for such phenomena, thus creating the possibility of more success stories in community-based ecotourism development. The analysis of successful ecotourism projects has been useful to policy makers in expanding their knowledge about ecotourism (McAlpin 2008).

I conducted my meta-analysis by comparing the thirty case studies I obtained to each other, based on the key factors listed in Table 1, and I also identified basic information listed in Table 2. I wanted to see if there were certain problems that consistently arose during the development of an ecotourism enterprise, as well as certain benefits that could be obtained, but that are enigmatic. With this meta-analysis, it will be easier to see what factors are included in a successful community-based ecotourism enterprise.

This meta-analysis includes thirty ecotourism case studies, selected based on their availability of information and their location, which was limited to enterprises within the biodiversity hotspots defined by Myers et al (2000) (Fig. 1) and Conservation International (2013) (Fig. 2). The goal of this meta-analysis is to see what methods have worked and why. My definition of a successful community-based ecotourism attempt is one that:

1. Provides direct economic gain to the host community
2. Creates social programs such as health care and/or education incentives to the host community
3. Provides educational incentives for the ecotourists
4. Achieves a higher level of environmental conservation than had previously existed.

It would not be feasible for a single researcher to collect information on every attempt at a community-based ecotourism business for a masters thesis; therefore, I chose to limit my sample population through four filters (Fig. 3). The first was to select ecotourism enterprises, which are different than mass tourism enterprises because of the adherence to a higher level of environmental protection (Butcher 2006). The second filter

was to limit the ecotourism enterprises to only community-based enterprises.

Community-based ecotourism takes a bottom-up approach to ecotourism development, where the managers and owners of the enterprise are composed of the local population, and the local population is the direct beneficiary of the economic and social developments (Jones 2005; Reimer and Walter 2013). This type of ecotourism infrastructure adheres to the parameters of sustainable use through addressing economic gain, social benefit, and environmental conservation (Bossel 1999; Mbaiwa 2003; Rowcliffe 2007).

I further filtered my sample population in two more ways based on the location of the ecotourism enterprise: restricting the collected case studies to those established in already protected areas of rainforest or marine area, and by restricting the protected areas to those that lie in biodiversity hotspots defined by Myers et al (2000) (Fig. 1) and Conservation International (CIF 2013) (Fig. 2). Resource control does have a large impact on the success of an ecotourism business in terms of achieving the economic, social, and especially environmental aspects of sustainability (Backman, et al. 2000; Coria 2011; Holmes 2012).

Protected areas serve the purpose of environmental and/or cultural conservation (Eagles, et al. 2002). Because of this overhead protection, there is a degree of resource control being enacted by some entity, be it governmental, private, community owned, or a mixture of these, that attempts to restrict the level of illegal logging, fracking, unsustainable agriculture and hunting, and other types of degenerative forest and marine extractions (Eagles, et al. 2002; HBP 2013; Nyaupane and Thapa 2004). Having an ecotourism enterprise within an already-protected area also provides an economic benefit,

in which the enterprise can provide jobs to local populations within the protected area, and it increases funding for the protected area through park fees to gain access to the ecotourism enterprise (Eagles, et al. 2002; Langholz and Brandon 2000). By looking at enterprises in already protected areas, the environmental sustainability failure rate may be lower and thus the data will be less skewed because of the reduced possibility of outside pressures infringing on space, being the area that the host community lives and the environment within which the enterprise is located.

Biodiversity, too, has an effect on the success of an ecotourism enterprise, because of the marketability of biodiverse areas to ecotourists and because of the chance for increased amounts of funding for conservation purposes due to the floral, faunal, and marine biodiversity (Myers, et al. 2000). By reducing the case studies to biodiversity hotspots, the data will be less skewed in terms of biodiversity being a major factor of success because all enterprises will have a high level of biodiversity; their successes and failures can be analyzed outside of the biodiversity factor.

When first conceptualizing this research, I planned to replicate the methodology of a study done by Salafsky et al (2001) and the Biodiversity Conservation Network (BCN). However, after extensive reading of the BCN project, it became clear that the only way the researchers were able to obtain the data within the case studies they included was because they had initiated those same projects (Salafsky, et al. 2001). Since I did not have the resources or time to be directly involved with multiple developing ecotourism enterprises, I decided to look at already-established enterprises, or those in the beginning stages of development.

Case studies are the main source of the data obtained. There have been numerous case studies done throughout the world, so other researchers produced the data I used for analysis. I found these case studies through Texas State University's library webpage and through Google Scholar by querying: ecotourism, community-based, community-based ecotourism (CBE), nature tourism, and adventure tourism. Online, I also researched various ecotourism businesses and NGOs that participate in ecotourism with a focus on social development, and either obtained their public annual reports or contacted them to ask if they would like to participate in the research.

The purpose of case studies are to see what decisions were made referring to development of an enterprise, and what the results of those decisions were (Yin 2009). In order to organizationally collect data on multiple case studies, I created my own questionnaire that includes questions connecting different phenomena related to the creation and longevity of an ecotourism enterprise (Appendix A). Having this questionnaire allowed me to streamline my own analysis, and to easily and methodologically keep track of the case studies I obtained.

I also utilized the networking site LinkedIn to post a call for participants for this project. I posted the invitation on the Ecotourism Network group and received many responses from travel agencies, NGOs, researchers, and actual ecolodge managers who wanted to participate. Those who did participate requested the questionnaire be sent to them to fill out, and it was later sent back to me, or they sent me the annual report for their enterprise so I could extract the data myself. At the top of every questionnaire was a statement indicating that all information would not be published without consent of the informant. It also informed the participant that this research is part of a Masters Thesis

project at Texas State University (IRB Exemptions: EXP2013D2140 02/11/13; EXP2013M5443 08/20/13). There were a total of three case studies obtained through LinkedIn, and one case study obtained through e-mailing NGOs, out of six e-mails sent.

Questionnaire Details

There are factors associated with community-based ecotourism that change over time, such as the number of tourists per year and season, and the reproduction rates of flora and fauna in the area (Wall 1996). There are also chaos factors, such as political upheaval and rioting, which often occur and may stunt the accessibility of the ecotourism business (Langholz and Brandon 2000; Lew 2000; Menkhaus and Lober 1995; Münster and Münster 2012). Other chaos factors not controlled by humans, such as natural disasters like hurricanes and typhoons, may also hinder the success of the industry (Salafsky, et al. 2001). Because of the variety of factors within and among these enterprises, I thought it necessary to search for phenomena that occur consistently in the case studies I encountered.

The case study questionnaire is separated into two main sections: basic information and key factors. The basic information is listed in Table 2, and includes:

- The type of tourist the enterprise seeks to attract, such as backpackers, birders, and horticulturalists, since there are different types of ecotourism and each can attract a specific type of ecotourist (Weaver and Lawton 2007)
- The protected area the enterprise is within and whether it is in a buffer zone or not; the primary habitat of the area
- The nearest large city or metropolitan area, including distance

- Indication of any natural disasters such as floods or tornadoes
- Any social or political disruptions that could have affected the business.

The key factor section contains the more in depth questions that streamline the analyses of recurring phenomena, and will also make unique phenomena for the specific enterprise stand out. The key factors are listed in Table 1, and include:

- Ownership and management of the business (specifically the level of local population involvement)
- Presence of a stakeholder group
- Gender representation
- Income from the enterprise and entrepreneurial efforts by the local population
- Generation of indirect benefits from the enterprise
- Presence of local political system
- Policing of natural resources
- Migration into or out of the area
- NGO participation
- Financial assistance

Spatial Representation

One goal of this thesis was to analyze the accessibility factor of the enterprises mentioned in the case studies, and to see if accessibility was a success-determining factor for the enterprise. The average distance to large cities was calculated to see if there was a correlation between the success of the enterprise and the accessibility, or remoteness, of its location. The definition of a large city, in this case, included the presence of an

international airport or large-scale systems of terrestrial or aquatic transport. Averages for distance were calculated using SPSS version 21 (IBM 2014).

Using ArcMap 10.1, I created maps that show the locations of the thirty case studies I obtained for the meta-analysis. They also show the location of the protected terrestrial or marine area each enterprise is located within. Since point data was not available for the individual enterprises, I placed the points within the general location of the protected area based on the information extracted from the case reports, such as distances to the nearest large cities and natural boundaries.

Most of the protected areas were available in shapefile form via the database website [Protect Planet](#), but some of the protected areas, such as community protected areas (CPA) and community marine protected areas (CMPA), had to be edited into the map by hand. The locations of the polygons were determined by using Google Earth to locate the country the protected area was within, searching for nearby towns and their distances from the enterprise mentioned in the case study, looking for specified geographic and ecological features, and creating the polygons within those parameters. Other sources for GIS shapefile data included the online database [Global Administrative Areas](#), for the country, principality, province, and municipality shapefiles; Baruch College's [online shapefile database](#), for global large cities; and ESRI and the Department of Geography at Texas State University, both of which provided base maps for the continental areas.

The combination of these methods is necessary when conducting research on an industry that is directly affected by local culture. However, to increase the methodological soundness for future meta-analyses on community-based ecotourism, it is

crucial that case study data are obtained through primary sources. Although articles and annual reports for community-based ecotourism are intended to serve the purpose of giving insight into the enterprise, they can often be biased, focusing on a certain factor or phenomenon that does not represent the enterprise as a whole – the good, the bad, and the ugly. Primary information, be it from the host community (preferable) or the outside entity working directly with the community-based ecotourism enterprise, gives a more complete picture of the struggles and successes during and after the developmental stages of the enterprise. Results of this meta-analysis are discussed in Section 1.2.

CHAPTER 3

Results

In this chapter, results of each of the nine key factors are explained. The ecological zones represented in this meta-analysis are in Figure 4, and the geographic span of the case studies is shown in Table 3 and via a map in Figure 39. The meta-analysis includes twenty-seven case studies of successful community-based ecotourism enterprises, as well as three unsuccessful attempts at community-based ecotourism endeavors. Success is defined by the presence of the following:

1. Direct economic gain to the host community
2. Creation of social programs such as health care and/or education incentives to the host community
3. Provision of educational incentives for the ecotourists
4. Achievement of a higher level of environmental conservation than had previously existed.

The three cases that were not successful lacked one or more of the sustainability factors, be it economic, social, or environmental. Full write-ups of the enterprises are located in the Appendices B-DD.

Key Factor 1 – Enterprise Ownership and Management

A necessary characteristic for a community-based ecotourism business is that the host population be involved in all aspects of development to the extent that they are able to manage the enterprise without outside management (Coria 2011; IFC 2004). This factor looks at the level of local population involvement in ownership and management

of the enterprise. The dynamics of the level of community ownership and management are closely related to systems of power. The CS (case study) questionnaire lists five different types of ownership and management (Table 4), and each case was identified as one of these types. Although the identifying characters for these types are numbers 1-5, they are not based on a hierarchical rank. The numbers are solely for the purpose of coding.

Type 1

There are three cases with Type 1 ownership, being the lowest amount of host community ownership (Table 5). It is important to note, however, that all of these cases have a higher degree of host community participation in management than they do in ownership. CS #1 (Khao Yai National Park, Appendix B) is an example of a failed attempt at community-based ecotourism. The government of Thailand is the official owner of the enterprise, as Khao Yai National Park is a major income generator the country as a whole, and the ecotourism attraction is the main income generator for the national park (Buckley 2001). Host community involvement in this case is limited to creation of businesses that benefit from tourism in the area.

Although the level of host community ownership is low in all three cases, some cases mention initiatives to integrate the host communities into higher ownership and managerial positions. One example comes from CS #2 (Pangandaran Tourism, Appendix C), where ecotourism is very active in the area and the government of Indonesia is attempting to gear the ecotourism infrastructure toward a community-based approach. CS #23 (Bunaken Ecotourism, Appendix W) is an example of a top-down approach to resource control that is now moving toward local community ownership and

management, as the host population was directly involved with zoning of the national park to create zones for ecotourism and other forms of sustainable development (UNDP 2012d).

Type 2

There are two cases with Type 2 ownership, where an outside entity consults the host community about the various developments the host community proposes, and both case studies have the same level of community involvement in management as they do ownership (Table 6). The host community does have a degree of input about how the enterprise develops, but most of the power still lies with an outside entity. CS #26 (Pemuteran Bay Coral Protection Foundation, Appendix Z) provides a good example of how low community ownership and management can still give the host community a degree of power through ownership of the conservation area the enterprise is within. In this example, the host community created their own MPA and receives benefits from the use of their area as a tourism location. The host community has control over the conservation area, which is also a main ecotourism attraction. In this way, the host community is receiving funds to support their conservation projects while also providing jobs to those directly associated with tourism within the host population. For example, tourism operators will pay local fisherman to use their areas in exchange for the local fisherman keeping the moorings safe for the divers (Bottema and Rush 2012).

Type 3

There is a single case study with Type 3 ownership (Table 7). In this case, the level of ownership is based on the ownership of the land the host population is located on, and the activity they allow into their area. They are active in monitoring the level of

bird species in the area and are compensated for monitoring the numbers, and for not disturbing the trees in which the birds nest. The management level is Type 2 because the host community does not exclusively organize tourists to come into the area.

Type 4

There are seven case studies with Type 4 ownership (Table 8), which is a system of co-ownership between the host community and an outside entity. Five of the seven cases have Type 4 management, but there are two cases where management is Type 5, meaning it is managed exclusively by the host community. CS #9 (Posadas Amazonas, Appendix I) is a good example of temporary co-ownership and co-management, where the host community is gradually given more and more responsibility as the enterprise progresses until they are able to sustain the enterprise without outside help. CS #16 (Rumbo Al Dorado Ecotourism, Appendix P) is an example of an enterprise that was not created to be the primary source of income for the host population, but rather to provide supplementary income to support their newly developed sustainable fishing and harvesting practices.

Type 5

As expected, most of the case studies in this sample have Type 5 ownership, where all the ownership power lies with the host community (Table 9). However, not all of these case studies have a Type 5 management style. There are two case studies with Type 4 management and three with Type 3 management. The remaining two failed attempts at community-based ecotourism are also listed as Type 5 ownership, CS #29 (Baghmara Community Forest Group, Appendix CC) and 30 (Ghalegaon, Appendix DD).

For CS #29 (Baghmara Community Forest Group, Appendix CC), the enterprise lacked social sustainability because there was significant disagreement with how equitable the funds were being distributed, and about the development projects that were attempted. This enterprise also used a co-management system with an outside entity, but they failed to report to them about how funds were distributed and no follow up was made by the outside entity for four years. What is important to take away from this case study is that, although the initiatives of the community-based political system in creating this enterprise started as positive, they were not able to progress due to lack of direction and experience in management and finance. For a host community to truly obtain the capacity to run their business, they must first be empowered to do so through training in basic business development.

CS #30 (Ghalegaon, Appendix DD) was an interesting case. It was started by a local man who saw the successes of some of the other tourism enterprises in the area and sought to create one for his own community. The economic benefits of this enterprise, however, are limited to those directly involved in homestays – those families who can sustain guests in their houses (HBP 2013). There is also an ethnic divide, where a marginalized ethnic group was excluded from the homestay projects and are forced to attempt to subsist on agriculture (HBP 2013). In these ways, the enterprise lacks in social and economic sustainability. Environmental sustainability has increased, but is still in a state of flux as the lack of sufficient income puts pressure on some community members to continue agricultural practices and illegally extract wood from the forests for fuel.

Community involvement in ownership and management is absolutely a necessity based on the analysis of the case studies in this thesis. However, giving all of the power

over the enterprise to the host populations before empowering them to handle the difficult task of managing an ecotourism business is setting them up for failure. Empowerment should come first, through training in management, finance, loan development, hospitality, importance of conservation, and conflict resolution. Two cases did this, CS #9 (Posadas Amazonas, Appendix I) and #25 (Las Marias, Appendix Y), and have had much success.

The first case is CS #25 (Las Marias, Appendix Y), where the outside entity that helped develop the enterprise gave responsibility to the community members on a gradual basis, allowing them to be able to adapt to handle more and more responsibility. The second case is CS #9 (Posadas Amazonas, Appendix I), where, again, the outside entity trained the host population in various aspects of tourism management and conservation. But in this case, the temporary nature of the outside entity was written into the management plan for the enterprise to ensure that the final product would be a wholly community-owned and managed enterprise.

Key Factor 2 – Presence of Stakeholder Group

This factor demonstrates the composition of stakeholder groups among the case studies in this meta-analysis (Figure 5). It is not clear if the composition of these stakeholder groups was indicative to the success of the enterprise, as most of them have a mixture of host population, government, non-government, and private sector entities. To add to that, the three unsuccessful community-based approaches had either a mixed stakeholder group, or were completely composed of the host community, which also indicates that host community empowerment is a necessity for the success of community-based approaches.

Key Factor 3 – Gender Representation

An initiative of some ecotourism enterprises is to have a higher degree of female representation, thus empowering women through greater representation in their community. It was difficult to quantify how much female representation was seen in the majority of these case studies because the data on specific percentages of female involvement was not provided. However, there were several mentions of initiatives specifically geared toward involvement of women in the stakeholder group, ownership, and management positions.

Figure 6 shows the variable types of female involvement in stakeholder groups. The majority of cases indicated no data on female involvement within the stakeholder group. Some cases indicated general female presence in the stakeholder group, specifically indicated a rising presence in the stakeholder group, or presented percentages of female involvement. In the cases where there were percentages, the enterprises had either developed their own political systems or management committees with spots specifically for female representation. For example, in CS #22 (Tetepare, Appendix V) the requirements for the stakeholder group was that at least 20% of the group must be female.

Figure 7 shows the variable types of female involvement in ownership. The majority of cases reported no data on female involvement in ownership. Case studies indicated general female presence in ownership, specifically indicated a rising presence in ownership, described female representation in community leadership positions, such as owning businesses, or presented percentages of female involvement. There was one case

study, CS #6 (Kokkrellur, Appendix G), where there was an absence of female involvement, but it was based on a cultural norm.

Figure 8 shows the variable types of female involvement in management. The majority of cases reported no data on female involvement in management. Some cases indicated general female presence in management, specifically indicated a rising presence in management, described female representation in community leadership positions, such as managing businesses or women's groups, or presented percentages of female involvement in management. CS #6 (Kokkrellur, Appendix G) was the only case study to indicate no female involvement based on a cultural norm.

There were nine cases that explicitly discussed equal gender representation as an initiative of their newly developing enterprise. CS #7 (Phansoli Eco Development Committee, Appendix G), #14 (Anja Miray Association, Appendix N), #22 (Tetepare, Appendix V), and #30 (Ghalegaon, Appendix DD) all required that a certain percentage of their community stakeholder group or management committee be female. CS #30 (Ghalegaon, Appendix DD) was one of the unsuccessful attempts of community-based ecotourism, and the political system they set up, which required at least three committee seats be filled by women, was dissolved. However, it is indicated that women who are involved in the homestay project have become more economically independent (HBP 2013). The other case studies, examined in detail in the annexes, encouraged female representation through creation of female-run businesses and increased access to education and scholarship opportunities for girls in school.

Key Factor 4 – Income from the Enterprise and Entrepreneurial Efforts

This factor examines the distribution of income within the host community, the percentage of income given to the host community, and any indication of an income threshold needed for the enterprise to succeed. The results from this factor were highly variable. Many of the enterprises have funds set up specifically for conservation and community development, where direct income to families or individuals is based on employment or direct participation. Figure 9 shows the variability in types of income distribution. According to the data, income was distributed based on employment within the enterprise in 25 out of the 30 case studies. The next most common method of income distribution was to set aside a portion of the income generated to conservation activities. There were also funds set up for school children, ranging from scholarships to helping to buy school supplies.

Equitability was a common challenge these enterprises faced because economic gain was a desirable, and at times expected, outcome of the enterprise. Employment was not attainable at times because of the lack of education in trail guiding, business, computation, or knowledge of English. This again brings up the important component of host community empowerment through education. Through providing education on basic business practices, such as management and computation, as well as basic English classes, members of the host community can be empowered to create their own businesses for secondary income.

An example of empowerment from education comes from CS # 26 (Pemuteran Bay Coral Protection Foundation, Appendix Z), where the local populations realized that placement in tourism related jobs largely required a higher level of education, which

encouraged the younger generations within the community to pursue higher education because of its direct relationship to higher probability of job placement (UNDP 2013a).

Another example comes from CS #25 (Las Marias, Appendix Y), where, through multiple participatory planning workshops and meetings, the host community created two new organizations made up of the community of Las Marias: Ecotourism Committee and United Women of Las Marias (Nielson 2001). The United Women of Las Marias organization then created their own business to sell handicrafts and local foods to the tourists, which added an alternative income source, and also encouraged the education of the younger generation of females in the community to learn how to make the traditional handicrafts, thus conserving part of the local culture (Nielson 2001). In these cases, the empowerment of the host communities through education gave them increased power over the benefits received from the enterprise.

Key Factor 5 – Indirect Benefits

This factor describes the indirect benefits accruing to the host communities as a result of the new enterprise. Results are variable, but still adhere to a small number of indirect benefits that occur consistently across all case studies in this sample population: education, healthcare, recognition by overarching government, governmental support, social cohesion, gender equality, minority involvement, and increased conservation awareness (Fig. 10). Table 10 lists the specifics of the benefit categories.

In 22 of the 30 case studies, the host population, adding to their empowerment and sometimes leading to entrepreneurial activity, had increased access to education in some form. The next highest benefit was explicit statements by the host community that social cohesion had increased in some form. According to Razzaq et al (2012) , social

cohesion and empowerment are crucial to the longevity of a community-based development initiative.

Key Factor 6 – Presence of Local Political System

I included this factor based on my experience in Perú, where the two communities, named A and B in this thesis, both developed their own local governmental system in order to organize their communities better as a unit. I wanted to see if the development of local politics was a consistently occurring phenomenon. The results of the presence of political systems in the case study population are shown in Figure 11. The local government was stated as absent, developed as a result of the enterprise, already existed, or other, such as development of a management, tourism, conservation, or executive committee.

The results revealed that the same number of cases had developed their own governmental system as those that already had one in existence. However, combined with the management, tourism, and conservation committees that developed, it does suggest that development of local organizational structures is a common phenomenon with community-based ecotourism. This phenomenon also goes along with the empowerment of the host community, and at times brings about increased gender representation.

One of the unsuccessful enterprises, CS #30 (Ghalegaon, Appendix DD), in this sample developed a local organizational structure but it does not acknowledge or give benefits to an ethnic minority in the community. The other two either did not have one, or it was not strong. CS #29 (Baghmara Community Forest User Group, Appendix 29) has an existing governmental structure, but it was not strong and eventually broke up into a system that does not represent the community as a whole, nor does it communicate

directly with the rest of the community (HBP 2013), and CS #1 (Khao Yai National Park, Appendix B) did not have any sort of organizational structure.

Key Factor 7 – Policing of Natural Resources

The amount of host community involvement in policing the natural resources also plays into the empowerment aspect of community-based ecotourism. Typically, land set aside for ecotourism was used by the host population for resources such as food, firewood, or income. Results of this factor are shown in Figure 12. Results were categorized into five types: N (none), ND (no direct), V (voluntary), OE (outside employer), and SE (self-employed) (Table 11). With the development of ecotourism, many such activities have to be reduced or restricted all together, which can put economic pressures on the community members at the familial and individual level. If the enterprise is located in a national park, the park authorities will at times hire some of the host population as monitors of the forest or marine resources.

The results also reveal that, with increased knowledge about the importance of such natural resources, host communities will actually police the resources themselves and base the monitoring on local laws of extraction. One example comes from CS #19 (Velondriake Ecotourism, Appendix S), where the government of Madagascar recognized the indigenous law of dina. Dina are local codes of conduct and are deeply rooted in Vezo culture (UNDP 2012l). In this case, dina laws prohibit marine extraction during certain periods in the year so that marine life has time to regenerate, thus making harvest times more fruitful (UNDP 2012l).

Type N Resource Control – Takes no action

Both cases with Type N resource control are located within national parks that have their own resource policing systems (Table 12), and both cases are examples of government-initiated projects that include the local populations in sustainable development practices in hopes of alleviating their reliance on the resources within the national park. CS #2 (Pangandaran Tourism, Appendix C) is also managed and owned by an outside entity. The community's lack of interest in policing their resources may stem from a lack of empowerment over the activity going on in the national park. If they had more say in what goes on in the park, and were direct beneficiaries of ecotourism activity in the park, they may be more inclined to protect the area. CS #20 (Mesomagur Ecotourism, Appendix T) adheres to a system of co-ownership and co-management, where they do not have to police the natural resources because that is part of the agreement.

Type ND Resource Control – No official policing infrastructure

All four cases with Type ND resource control are located within natural reserves (Table 13). Direct policing is not required of them because of their location, specifically stated in CS #30 (Ghalegaon, Appendix DD). All cases except for one are completely community owned. With CS #28 (Community Tours Sian Ka'an, Appendix BB), the host community does not exclusively own or manage the ecotourism enterprise or the conservation area, but they will report illegal action if it is obvious because they still benefit from ecotourism activity in the area through direct employment.

Type V Resource Control – Voluntary Reporting

There are ten cases of resource policing based on voluntary reporting. These cases also have either complete community ownership and management, or they are co-owned and co-managed (Table 14). One of these cases, CS #21 (Nguna-Pele Marine and Land Protected Area Network, Appendix U), is located within what is called a CMP (community protected area), which is an area of land that is owned by the local populations. The ownership is based on an agreement between a governmental entity and the host community and states, that any development within those areas will be environmentally sustainable. Two other cases are located on land that is owned by them based on laws securing indigenous land to the indigenous people.

Type OE Resource Control – Employed by Outside Entity

There are eight cases with this type of resource control. The ownership and management styles are highly variable, so it is difficult to discern if the level of ownership and management plays a part in this type of resource control (Table 15). The locations are also either within national parks or CMPs. One of the failed attempts at community-based ecotourism, CS #1 (Khao Yai National Park, Appendix B), is among those listed as having Type OE resource control, where being employed as a monitor is one of the only income sources directly related to conservation available to the host community.

Type SE Resource Control – Self-Employed

There are six cases of self-employed resource control (Table 16). Interestingly, all of these cases are located within conservation areas that are CPAs, CMPAs, indigenous territory, or a culmination of land from local farmers. Having direct ownership of the land

empowers these host communities to police the for conservation purposes. It is important to note, too, that policing of these areas means reduced extraction of forest resources, and prohibition of unsustainable agriculture and livestock rearing, which are, or were, livelihood activities of these host communities. Such voluntary restriction shows a high amount of dedication to conservation on the part of the host community. One of these cases, CS #29 (Baghmara Community Forest User Group, Appendix CC), is an example of a failed attempt at community-based ecotourism; however, it is only a failure on the basis of lacking social sustainability. The environmental and economic sustainability components are very strong.

Key Factor 8 – Migration

The purpose of this factor is to see if migration into or out of the host community is a common phenomenon. It has been theorized that developing an ecotourism business will attract people from outside the local population in search of employment (Hernandez Cruz, et al. 2005; Lundmark 2006; Wunder 2000). I wanted to see if such a phenomenon appeared in the majority of the cases I obtained. The results show that migration into the host community from outsiders is not a common phenomenon. There are five cases of migration into the host community (Table 17). Only two of the five cases indicated migration into the host community by those seeking employment. The other cases are of migration into the community by tour guides, previous residents of the community, and through marriage. CS #30 (Ghalegaon, Appendix DD), one of the failed attempts, was the single case where migration out of the community occurred because of the low income generated by the ecotourism business.

The majority of cases did not indicate any migration into or out of the host community (Table 18). This information is, however, obtained through secondary sources. Obtaining primary data from the owners and managers of these enterprises may give more in-depth information about migration that may be happening or that may have happened in the past due to the development of the community-based ecotourism enterprise.

Because economic gain is a common goal in community-based ecotourism enterprises, it would seem that some residents of the host community would want to leave the area perhaps after they have saved up money, whether to seek better education for their children or to seek better employment after receiving education in marketable skills such as management, tourism, conservation, guiding, or computation. The president of community B expressed such a desire to me during my stay in Perú. However, not many cases identified migration out of the location of the enterprise as an occurrence directly related to the development of the ecotourism enterprise. In fact, in some cases, an initiative of the enterprise was to stop migration of the younger generation out of the community (Table 19).

Key Factor 9 – NGO Participation

Participation by non-governmental organizations (NGOs) in community-based ecotourism development tends to be a common occurrence. Although the intention of the NGO may be good, they are often cited in literature as inefficient, inexperienced, and unorganized, which results in a failed or mismanaged community-based ecotourism enterprise (Butcher 2007). I wanted to see the type of involvement NGOs had, if any, with the case studies included in my analysis. Table 20 lists the five types of involvement

by NGOs in my analysis: N, no involvement; IN, helped with in-kind donation; FI, helped financially; IN-FI, helped with in-kind donation and financially; and S, successfully integrated the host community into ownership and management positions.

Type N – No NGO involvement

There were two cases that did not indicate NGO involvement (Table 21). In the case of CS #30 (Ghalegaon, Appendix DD), the CBE initiative was completely based on one community member's vision of creating an ecotourism business for his community. The other stakeholders were from a different enterprise and from the Nepalese government. It is notable that one of the cases with no NGO support is a failed attempt; however, this does not suggest overall effectiveness of NGO participation in community-based ecotourism.

Type FI – Helped Financially

There were four cases where exclusively financial assistance was given to the enterprise from an NGO (Table 22). One of these cases, CS #29 (Baghmara Community Forest User Group, Appendix CC), failed at social sustainability; their lack of success was partially due to lack of follow up to organizations overseeing the development of the project. The ideas proposed to be implemented by the host community coincided with some ideas proposed in some of the other successful case studies, and would have attributed to a higher amount of social sustainability had the host community been provided with proper training in areas of management, finance, and democratic governance. Herein lies an example of the importance of host community empowerment: the host community was not empowered to manage their enterprise efficiently, so it began to gradually fail.

Type IN – Helped with in-kind donation

In-kind participation by NGOs is mainly in the form of training and co-management. This type of participation was found in three case studies (Table 23). One of these, CS #1 (Khao Yai National Park, Appendix B), was a failed attempt at community-based ecotourism. Although it was a failed attempt, the training provided by NGOs in CS #1 (Khao Yai National Park, Appendix B) was successful to a small degree as it allowed a small amount of community members the opportunity to work as guides.

Type FI-IN – Helped financially and with in-kind

Financial help provided by NGOs was seen in ten cases (Table 24). Where type FI was exclusively financial assistance, and type IN constituted exclusively in-kind assistance, this type includes enterprises that indicated both financial and in-kind assistance from an NGO. All of the cases were either co-owned/co-managed or completely owned/managed by the host community, except for CS #28 (Community Tours Sian Ka'an, Appendix BB), which is an enterprise with host community ownership over the land and not the actual community-based ecotourism business. Such a high level of ownership/management by the host community in this sample, coupled with the empowerment through training by an NGO and finances to provide training from other sources, confirms the hypothesis that empowerment of the host community does in fact contribute to a higher success rate of community-based ecotourism that attains economic, social, and environmental sustainability.

Type S – Successfully integrates the host community into ownership and management

This type of participation by NGOs attributes host community ownership/management success explicitly to an NGO, or NPO, that helped start the enterprise, and that developed an exit strategy that allows for successful implementation of the host community into full ownership/management roles. The results are nine cases of successful host community ownership/management integration with direct help from an NGO/NPO (Table 25). Of these nine cases, seven show attainment of significant amounts of indirect benefits such as training, education, and healthcare.

This analysis of NGO participation is not indicative of NGO participation on a large scale. It merely serves as an example that NGOs have the capacity to increase the empowerment of host communities in community-based ecotourism development. It is important to note, however, that NGOs are still attributed with low experience levels in tourism, which can, and at times has, led to mismanagement of the developing enterprise (Coria 2011). Utilizing multiple sources for training in various areas, such as guiding, management, and conservation, will be the most beneficial (FFRC 2008).

In some cases, training may not be provided for skills marketable outside of ecotourism, such as computation, management, and finance, for the fear that the host community will seek better employment elsewhere, possibly in careers that go against sustainable development. Such reasons for restricting empowerment of the host population actually enforce neoliberal governance on the host community by the NGO supposedly trying to help the host community. In reality, the NGO may be attempting to benefit themselves in some way (Holmes 2012). Restricting the host population from

skills they inevitably need to support the longevity of the ecotourism enterprise suggests that the NGO has no intention of integrating the host population into complete ownership and management, and in a sense feels some sort of ownership over the host community and their land because of the help the NGO is offering.

The main role of NGOs should be to find funding sources for their projects, and more importantly to give that funding directly to the project they are helping develop. However, one of the main difficulties NGOs have, overall, is finding funding sources for their projects (Parks 2008). Through my internship at NGO Rainforest Partnership, I was witness to the difficulty of finding funding sources to support the various projects the NGO was developing. It should be noted, then, that a low level of NGO assistance in empowering a host community is not because they are refusing to do so, but may be because the NGO is having a difficult time providing the funding needed to provide the necessary empowerment of the host population. It will be important for the NGO to focus on focus on finding the funding for projects that are already in play, rather than creating more projects without finishing the ones that are already started.

Key Factor 10 – Variability of Financial Aid for Community-Based Ecotourism

Development

This factor is solely for the purpose of observing the types of financial assistance offered to the host communities included in this meta-analysis (Fig. 13). Based on the data, most of the financial assistance came from national governments. The variability of the origins of financial assistance suggests that multiple actors, or organizations collaborating in community-based ecotourism development, are an effective method of development. The majority of host communities, approximately 67% in this meta-

analysis, explicitly acknowledged the importance of multiple income sources, mainly based on entrepreneurial efforts (Fig. 14). These efforts stemmed from some degree of host community empowerment, where the host communities recognized the supply and demand nature of the tourism industry, and took action in securing economic sustainability through utilization of multiple income sources, be they increased lodging, more varied attractions, marketing of handicrafts, or provision of local transport to and from larger cities. The entrepreneurial efforts were based on the provision of training in some form – host community empowerment.

CHAPTER 4

Spatial Representation – Accessibility

The majority of the case studies in this meta-analysis are located in very remote areas only accessible by boat, foot, or air. However, the remoteness of their locations did not seem to be the biggest hindrance to the success of the enterprise. The successful case studies, even those in the most remote area of rainforest only accessibly by boat or by foot, did not have a major issue with accessibility because of their partnership with tourism operators who would advertise for the host community and organize transport of the tourists in coordination with the host community or other tourism operator. In this sense, the success factor as it relates to accessibility is better determined by the amount of local, regional, or international tourism operator partnerships with the host community.

Some of these case studies also adapted to be more accessible as a result of their ecotourism enterprise. One example comes from CS # 11 (Zabalo Ecotourism, Appendix K), where the host community created an airstrip just outside the village so that tourists could have a direct flight from Quito, the capital of Ecuador, to Zabalo, the location of the community-based ecotourism enterprise. This effort also stemmed from the political instability in the heavily rainforested areas of Ecuador near the border of Colombia, where it was unsafe for tourists to travel through the rainforest (CSF 2013).

CS #23 (Bunaken Ecotourism, Appendix W) explicitly mentioned the high accessibility factor as a big contributor to the success of the enterprise; however, such high accessibility is also seen as a threat to the biodiversity of the area (Münster and Münster 2012). Because the area is highly accessible, the growth of the enterprise will be

difficult to restrain. This case study shows the contradictory phrasing of ‘sustainable development’, where environmental sustainability is only achieved through reducing the degenerative activity, but economic sustainability is at times only achieved through increased size of the enterprise over time: development.

Based on the reported and approximated distances of the case study enterprises to large cities, the average distance was 117.16 km (Table 26). There were only two case studies that explicitly mentioned accessibility as a hindrance to the enterprise, CS #29 (Baghmara Community Forest User Group, Appendix CC) and CS #30 (Ghalegaon, Appendix DD). Both of these enterprises had a host community that was not empowered, and both cases were determined to be unsuccessful in terms of sustainability.

Although close proximity of the community-based ecotourism enterprise to a larger city can at times be critical to the enterprise’s success, through this analysis it was evident that enterprises in remote areas are able to overcome the distance to larger cities through effective marketing and partnerships with tourism operators.

CHAPTER 5

Chi-Squared Analyses

Using IBM SPSS 21 (IBM 2014), I did crosstabulation (Table 27, 28) and chi squared test of independence analyses comparing the management and ownership styles to the resource control types to see if the management/ownership and resource control variables were independent of each other. First, I will explain the comparison between management structure and resource control type. The null hypothesis was that management style and resource control are independent of each other. According to the chi squared test ($n = 30$, $\chi^2 = 31.6$, $df = 16$, $P < .05$) management style and resource control are related in some way – they are not independent of each other (Table 29). The resulting P-value is 0.011, so the null is rejected at the .05 level of significance. These results suggest that host community participation in resource control increases as host community participation in management of the enterprise increases. Empowerment of the host community at the managerial level, then, can lead to increased community empowerment in other aspects of the enterprise related to sustainable use of the environment.

I used a chi-squared test of independence to compare the ownership style to resource control type as well. The null hypothesis was that ownership style and resource control type are independent of each other. According to the chi squared test ($n = 30$, $\chi^2 = 21.7$, $df = 16$, $P > .05$) the resulting P-value is 0.154. The null is accepted at the .05 level of significance, meaning ownership style and resource control type are independent of each other (Table 30). These results could suggest that there is no rigid correlation

between the level of host community involvement in ownership and the type of resource control being enacted.

If the management/ownership styles were based on a hierarchical scale, where one type is considered better than the other, the two types could be combined so that the overall management and ownership type of each individual case study could be tested against the other variables (such as resource control type) to see if the management/ownership types are independent of the other key factors, or if management/ownership type will affect the level of host community involvement in the other key factors. However, in order to rank the styles the questionnaire and data collection would have to be streamlined so that all measurements are determined equally.

Part II
FIELD STUDY

CHAPTER 6

Methodology

The next approach is the field study totaling six and a half months, where four months were spent volunteering at Austin, Texas based non-governmental organization (NGO) Rainforest Partnership (RP) and two and a half months were spent in Peru with two of the communities working with RP. I wanted to know if what I observed in the literature would be the same as what I might encounter in the field – in practice. This field study portion of my thesis is important because it provides an applied aspect to my analyses and results. It is one thing to analyze research other people have done and come to conclusions based on their data. My hypothesis was that I would identify similar phenomena relating to community-based ecotourism development in the field study as I did in the meta-analysis, which did occur. The importance of host community empowerment is seen within the field study and the meta-analysis, where empowerment led to several key factors such as: increased gender equality, financial assistance, development of a local political system, and varied indirect benefits in one or both of the host communities I stayed with in Peru.

Current executive director Niyanta Spelman and current Board of Directors treasurer Hazel Barbour founded RP in December 2009. RP's main goal is to connect with people who live in and around rainforested areas in order to encourage the development of environmentally sustainable economies. They currently have four projects in Peru and Ecuador, and continuously promote rainforest conservation in the Austin Metropolitan area through various fundraisers and participation in local events.

The first four months spent at RP allowed me to directly observe the interaction between an NGO and a host community when developing an ecotourism enterprise.

At RP, I assisted their Peru coordinators with developing a management plan for their developing ecotourism project, located on the eastern side of the Peruvian Andes. With the approval of the RP staff and representatives of the two communities the enterprise is located within, named A and B here, I traveled to Peru to observe and assist with development of the community-based ecotourism business.

During my stay in Peru, I attended weekly community meetings and distributed various questionnaires to community members to collect demographic information, as well as to gain insight on their understanding of the importance of conservation and reaction to working with RP. I was also able to collect ethnobotanical data from both communities through informal conversation and questionnaires. The ethnobotanical data collection was a pilot project for a potential medicinal garden the two communities showed interest in incorporating into their ecotourism enterprise.

Field Study – Austin, Texas

My main task when I started at RP in January 2013 was to help create a management plan for the community-based ecotourism project in Peru. The management plan needed to be written in such a way that the communities could easily comprehend and implement in into their livelihoods. A management plan is essentially a plan of action that outlines all factors of the business at hand (Leedy and Ormrod 2005). It is a way of organizing the process of creating a business. For ecotourism enterprises, it is essentially a set of conceptual principles, policies, agreements by stakeholders, the host community, and the local governments, as well as previous and current marketing strategies for the

enterprise (McKercher 2000). The plan had to be easy enough to understand for people who have no experience in business management – for them to be able to organize themselves into a working unit. Through outlining and explaining the responsibilities of the positions that must be filled, the management plan can be used as a tool that assists community leaders in assigning tasks to different people in order to prepare the business for operation (Patterson 2007).

Creating a management plan from scratch is a tenuous endeavor. Before I came to RP, there were two Peru based coordinators who worked on creating a management plan for this ecotourism business, but without much progress as they were tasked with multiple other projects as well. I attempted to find a management plan I could use as a template so as to not exclude vital information as a result of my own ignorance. Fortunately, I found a [mock management plan](#) for a fictional ecotourism industry that was created by Contact Nord, an online learning resource for professors and students in Ontario, Canada. The document did not need to be elaborate; it needed to be simple and well organized. I collaborated with RP's Peru coordinators on a weekly basis, acting as a team to create the management plan.

Elements of the Management Plan

Elements of the management plan are listed in Table 31. The mock plan included samples of signed agreements from the host community, the stakeholders, NGOs, and relevant governmental agencies to show what the real documents might include. This mock plan had sections for proposed activities, referring to what tourists would have the opportunity to do, as well as impact on the environment, campsite design, resources, and town infrastructure; cultural considerations, including contact history and heritage and

positive impacts on the culture of the host community. It also included economic and social issues, including community support, impact on employment and training, and possible negative impacts and management strategies; health, safety and security issues, including laws and regulations, staff responsibilities, visitor information; a section on the tourism sector, which entails networks, local and regional tourism businesses, and quality assurance certification; and on trialing and evaluating the venture, which explains how trial runs were conducted, if at all, and the responses of the participants' experience.

After I read through this document, I began to edit it to pertain specifically to the RP project. Most of my editing included deletion of their text (since it was irrelevant to the plan I was making) and replacement of questions to answer about the history, culture, government, and local economies of communities A and B. The reason for replacing their information with RP's, and the importance of using a mock management plan, is that management plans are themselves intellectual property, and sometimes they are stolen from other businesses (McKercher 2000). Tourism is a competitive industry, where different businesses can start out as partners, but later become competitors (McKercher and Robbins 1998; Norris, et al. 1998). In order to avoid infringement upon another enterprise's ideals, I chose to model a plan from a fictional business.

The other information in the management plan, such as a schedule for tourists, how waste was taken care of, the different structures that are being built, and attractions tourists would have access to, could be filled in by the two project coordinators in Peru. I sent the management plan to them so they could fill in the blanks. For whatever was left, they decided it would be best if, while I was in Peru, the communities voted on what they want and do not want for the business, as well as on who will be doing what tasks.

However, because of the slow pace of the project and lack of business infrastructure and knowledge of business management in the host community, the community members did not get a chance to vote on elements of the management plan while I was there.

There is also an entire section of the management plan dedicated to the culture of the local populations, including the different cultural practices ecotourists could engage in, if any. This cultural section is one aspect that sets a community-based infrastructure apart from other types of tourism infrastructures. The RP management team decided it would be best to wait until I was in Peru to update this section so that the data collected would be primary. This way, too, the communities themselves would be deciding how much of their culture could be experienced by ecotourists.

Once I received the final additions from the Peru coordinators, I edited the entire document for grammatical content. Previously, I included specific questions to guide the other members of the management team in collecting the correct information. I took those questions out, leaving the questions in the section on the local population's culture. I also gathered together the various legal documents associated with the business, which included signed agreements by the local community leaders, regional municipality, RP stakeholders, and other partnering institutions, such as Architects without Borders, who agreed to assist in the creation of the ecolodge for this business. After the final edits were completed, I sent the plan back the Peru coordinators so they could familiarize themselves with its elements. Edits are still taking place as the communities A and B customize their management plan to meet their own economic needs, as well as the conservation of their cloudforest.

Field Study – Peru

Even though the issues rising from sustainable development have effects on a global scale, such as ecotourism's effect on global economies, there are also impacts that occur at the local level (Leach and Fairhead 2002). Anthropologists have the training in cultural sensitivity that can prove crucial in bringing the concerns of local populations involved in ecotourism, especially community-based ecotourism (Abram 2010; Leach and Fairhead 2002). It is important to understand the needs of the host populations first, so that an efficient community-based infrastructure is the foundation of the entire enterprise. My role while in Peru was to do just that; provide an outlet for the host populations to express concerns, fears, praises, and encouragements to the NGO they have been working with.

During my two and a half month stay in these communities, I witnessed firsthand the local business and politics of starting a community-based ecotourism business from the ground up. Doing the field-study helped me to identify and look out for unique phenomena that occur during developing stages of an ecotourism enterprise, such as development of local political systems.

The ecological area is termed a cloudforest because of its location just below the tree line, but high enough in elevation that condensation from the cool air and humid forest create clouds within and above the forest (UNDP 2013c). The cloudforest is one of the world's most biodiverse ecosystems, and, unfortunately, it is also one of the more endangered ecosystems (Scatena, et al. 2013).

Community A is an agricultural community, where coffee is the main cash crop. Residents also grow bananas, coca leaves, and have small populations of cattle. In

addition, some families raise bees to harvest honey. Based on demographic data I collected, the population of community A contains 139 men, women, and children. Average monthly income is approximately 222 s/. (Soles) per month, which is approximately \$78.67. Income levels were collected by month because harvesting time for coffee, the main cash crop, is May through July. Income during off-season months varies based on the availability of odd jobs in neighboring towns.

Based on information given to me by residents, the average amount of time an adult from community A spent in school is 5.9 years, with primary education being the most common level of education of the informants (Fig. 15). All households are bilingual, speaking Quechua, a native language of the Peruvian highlands, and Spanish. English is taught to children starting in educación inicial (equivalent to kindergarten) and continuing into secondary school (equivalent to high school). In community A, there is a kindergarten and two sections of primary schools, separated from first to third grade and fourth to sixth grade. Older children attend secondary school in the municipal capital.

Community B is also an agricultural community and is located approximately 15.7 km from community A. Because community B is approximately 883.9 m higher in elevation than community A, coffee does not grow there. The main cash crops are granadillas, pumpkins, and lemons. Some families have small populations of cattle as well. Based on demographic data I collected, the population of community B is 54 men, women, and children. However, further investigation through informal conversations with residents revealed that there are only seven permanent families living in the community. The rest of the population stays in the town for the harvesting months and then returns to their permanent residences in surrounding towns. Average monthly

income in community B is approximately 210.95 s/. (Soles) per month, which is approximately \$74.77. Income data was collected by month because income is focused around harvesting seasons, which are three months out of the year.

The residents of community B also partake in odd jobs. For example, the brother of the president of community A maintains a small shack in the regional capital where he stays during selling seasons and drives a moto, or motorbike taxi, for more income. The practice of having two residences for the sake of maintaining multiple jobs is not uncommon for residents of both communities. Often times, one family will own a second house in a larger town, but other members of the community will help build it, thereby, through reciprocity, securing a place for them to stay when they travel to the larger town (Informant 2013a).

Based on information gathered from the residents of community B, the average number of years spent in school is 5.5, with primary education being the most common level of education (Fig. 16). However, there was also a large percentage of the population that was not around when I visited because of the busy harvesting season, so the data collected may not be completely representative of the entire population. Based on information gathered from the president of community A and past resident of community B, the education level in community B is less because there are more families there to whom education is not financially accessible (Informant 2013a). The current president of community B confirmed this information and expressed remorse that he could not afford to send his eldest three daughters to secondary school (Informant 2013b).

While in Peru, I added factors to my questionnaire that I wanted to look for in other case studies. The added phenomena were: creation of local political systems,

increased community cooperation/cohesion, creation of local fundraising programs, and university partnerships. I was also able to get the reactions of people of the two communities about the new business, and see the interaction between them, the non-profit organization Rainforest Partnership, and any other outside sources that will be helping the communities.

CHAPTER 7

Results

In the results from the field research, I will discuss the ethnographic accounts about the progress of the ecotourism business in communities A and B, descriptions of their community development projects, and their interactions with NGO Rainforest Partnership and the forestry-engineering students from the a Peruvian university in Huancayo, Perú.

This section reviews the data from the surveys about conservation and host community's reaction to RP. The reason for the survey about the host community's reaction to RP was to see if the community's' attitudes toward the NGO have become more positive, the same, or negative since RP started to work with them. This was a crucial part of the survey because, if there was any negativity toward how RP was functioning, such negativity needed to be addressed right away if the project is to progress. Information about the current knowledge of the communities in terms of conservation and its importance was also an important factor to obtain. If conservation was not an important aspect of their reason to create this business, further education of conservation and its importance would need to be introduced to the communities. A lack of interest in conservation may also indicate the likelihood of the host communities continuing their agricultural habits unsustainably.

Ethnographic data was gathered through informal conversations, as well as through written surveys. The previous condition of RP's demographic information was three years out of date and very fragmented. I wrote a four-part feasibility analysis survey

that was composed of a demographic survey, reaction to RP, knowledge about conservation, and ethnobotanical survey (Appendix 1). The first draft was sent to RP for edits, and was then brought to community A by one of the RP's Peru coordinators.

Importance of Conservation

Data obtained for this section only represents community A, as time and accessibility limited the data collection process in community B. Based on the data, community members acknowledged that flora and fauna were of greatest importance to the conservation of their forest (Fig. 17). Also included in their responses was that conservation was important because it gives life to the Earth, and because it is beautiful. It is evident that the community acknowledges the importance of their forest.

In community B, too, there is evidence to support the same conclusion. While observing and participating in the planting of granadilla trees near community B, I was able to ask how the men chose the land they used for planting, which included burning large sections of forest. The main response was that, in the areas where they burned, there was a fungus growing on the trees called chaka-chaka. This fungus is black, rigid, and sharp, and it eventually kills the tree it is on and spreads to other trees and shrubs in the area. The presence of chaka-chaka is a main indicator for a good place to burn because burning the infected and dying trees kills the bacterial growth.

In another section of the survey, I asked what primary uses the community members have for the land they own. Based on the responses, in community B the primary use was agroforestry, and in community A the primary use was agriculture (Fig. 18). There were also mentions of primary uses for conservation, or *protegida*, which consisted of leaving the land alone for regrowth. Agroforestry is different than agriculture

because, with agroforestry, multiple plants are planted in the same cultivation area (Sanchez 1995). Four cases in the meta-analysis also utilized agroforestry as either an attraction for tourists, or as an alternate source of income that supported a conservation area or the community-based ecotourism business (Table 32). One of these cases, CS #2 (Pangandaran Ecotourism, Appendix C), is in the process of creating an agro-tourism aspect to their community-based ecotourism enterprise. Agro-tourism is a form of ecotourism where agroforestry serves as an economic incentive to the host population and as an opportunity for tourists to see methods of cultivation of multiple different endemic floral species of an area (Stamboulis and Skayannis 2003; Yang, et al. 2010).

Reaction to NGO Rainforest Partnership

The purpose of this section was to see how the host communities viewed the assistance RP was offering them; to see if it lined up with what RP wanted to provide to them. Through the survey, I asked community members how RP has helped their community so far (Fig. 19). The results largely suggested that RP was providing what they said they would, which was support and advice in tourism development. However, there were mentions of things RP could improve on.

Established in December 2007, Rainforest Partnership is a relatively new organization. Because of this, they are still developing the management structure for project coordination in Perú. After moving moderately slowly, since 2010 the pace has considerably picked up. This section will examine the reactions of communities A and B to RP so far. I will also highlight the achievements of the host communities, as well as the partnerships that were created with a university in Huancayo, and the local,

municipal, and regional governments in the area during my stay in the two host communities.

There was also a section in the survey that asked the community members what RP could improve on (Fig. 20). This was an important issue to address, because, if there were any inconsistencies they needed to be revealed and mediated so that the development of the enterprise would not be stunted. The results showed that many of the respondents wished that RP were closer to the community, a response most prevalent in community B. Through conversation with some of the community B residents it was clear that they were beginning to feel isolated. In community A, too, there was some feeling of isolation from RP. This was to be expected since RP is located in North America, an entire continent away from the host communities. On top of that, communication is difficult in the highlands because of the lack of stable internet. The nearest place to get stable internet was the municipal building, 22 km from community B and 6.3 km from community A, but access was not always allowed. The next internet accessible place was through internet cafes in the next largest city, 45.3 km from community B and 29.6 km from community A.

Another response from community A was for RP to provide help in the current agricultural work, specifically their coffee production. However, it was indicated that community A respondents intended to stop agricultural work if tourism was a success (Fig. 21). It is unclear whether such a unanimous response is due to inherent belief in the ecotourism business's long-term success, or if they were providing an answer they believed RP would want to hear.

There were also a few requests for RP to send business professionals to help develop their enterprise. It was becoming clear to the community members of communities A and B that the RP coordinators in Perú were not as knowledgeable in the business of ecotourism as they had hoped, and some attributed the slow pace of the project to this. It was expressed to me multiple times by the current president of community A that he wished to be educated more in management and computation. He revealed to me several friends of his who were involved with tourism in the area, and some located in the local university down the mountain. I encouraged him to utilize his resources to get the experience he needed, but I also warned him against signing any agreements, as some people might try to take advantage of the developing enterprise for their own gain. Provision of experienced professionals to both host communities will be crucial to their effective empowerment.

Condition of the Two Host Communities

Both community A and B have created their own quazi-political systems with a president, vice president, treasurer, and secretary. The functions of the members of the political bodies are very basic. The president holds most of the administrative power, and the vice president is an advisor to the president. The main task of the secretary is to take notes during all community meetings, and the treasurer is in charge of keeping current books on loan statuses, in-kind donation support within the community, and income from visitors to the lodge or hostel. In community A, women fill half of these positions, which is a big step towards equality in an area of the country where women used to be greatly marginalized (Boesten 2003). Both community governmental bodies have signed written

agreements with their municipal government and RP to participate and support the community-based ecotourism business.

Community A designated mandatory community workdays, where the entire community gets together to work on various projects to clean up the town and finish the lodge. If a person does not participate, they are required to pay s/. 150 to the treasurer because the work is counted as in-kind donation. The money from this rule goes to the repayment of a newly obtained loan for a student transport moto-taxi.

In community B there was an issue with the first man who was serving as president. But after several months of bickering he was removed from office and replaced by a local restaurant owner. The new president of community B is a very kind man who understands the benefit the community-based ecotourism business can bring to his community. He has even cleaned up his own restaurant by redoing his kitchen and buying a brand new table for the dining area, doubling occupancy.

There has been some concern in community B about not having a lodge like in community A. Currently, community B has a temporary hostel that has received fifteen guests in the past two years from Colibri Expeditions. The residents of community B are eager to create their own lodge to be more attractive to visitors because they fear community A will receive the most business once their lodge is finished. After the meeting with RP's project staff, and presidents of communities A and B, Niyanta, current executive director of RP, was able to encourage them that as soon as they (community B) can collectively agree on where they want the lodge and when RP can find the funding to create it, the lodge will be built.

Community Expected Outcomes of the Enterprise

Another aspect of this survey was to see what kinds of outcomes the community members were expecting from the ecotourism business. This was an important aspect to address because the expectations of the two communities and the feasible outcomes of the actual enterprise RP was helping develop needed to coincide, or problems may arise during the trial phases of the enterprise. This survey was only conducted in community A because of time constraints and difficult accessibility to community B. The results showed that economic gain was the primary outcome members of community A were expecting (Fig. 22). After hearing the responses from community A, I was curious to see what types of services they were going to offer as part of the enterprise accommodations. The responses I got did not indicate large economic gain, as the services were minimal and limited to one meal a day and some guiding service (although no training in guiding has been provided to the community members).

In an effort to help raise the potential for economic gain for the community members, I suggested they attempt to offer more services to the tourists, such as laundry service, a small breakfast service, and daily cleaning of bathrooms. These accommodations could allow them to raise the price per night. The lodge and hostel, as they were while I stayed there, did not have much customization to them, either. In an effort to help both communities attain a higher sense of ownership of their business, I suggested they try to decorate the lodge and hostel – customize them to their own cultures. Many of the residents of communities A and B are not indigenous to that specific area of highland (Fig. 23). Based on the questionnaire answers, and through informal conversation, I found that many of the residents of both communities have

moved to their current location from other parts of the Peruvian highlands for the purpose of agriculture. Such a wide range of cultural identity can allow them to present a unique cultural experience for the tourists because they can be witness to a wide range of Peruvian culture in a single area. This suggestion was widely appreciated and is pending implementation as the official management plan is finished.

I also wanted to see what types of entrepreneurial aspirations, if any, the community members had, and what types of work they wanted to be involved in. This question was also limited to the residents of community A. The results show four main employment interests: hospitality, management of the lodge, trail guiding, and cooking (Fig. 24). Those respondents interested in cooking also showed interest in creating their own restaurant where they could serve native foods of the Peruvian highlands. One woman expressed interest in selling cheese that she makes at home.

Municipal and Regional Government Partnerships

During Niyanta's visit to Peru, we were able to meet with the municipal governor. During this meeting, we were able to create an agreement with the governor to help with monetary support for the new bathrooms that need to be built for the lodge in community A and for support and clearance for building a lodge in community B. The mayor was very receptive of RP's work and future plans, and he sees the benefit of introducing ecotourism to the district.

The meeting with the regional government, however, was something none of us had planned on having. It was something Niyanta knew needed to happen, but we did not know it would occur on this trip as we had not planned it, nor had we contacted them yet. On the day that we arrived in community B to have our scheduled community meeting,

we saw a nice pickup truck with a man and woman standing outside of it wearing jackets of the regional government, whom ended up being forestry engineers for the local province. They had in fact just arrived to see the condition of community B and talk to some people in the community because they wanted to extend a conservation area to include community B.

Hearing this, we were thrilled to encounter them and Niyanta informed them why we were there. They were as excited as we were and we were then able to have a joint meeting with community B, the regional government officials, and RP. We were also able to set up a meeting with one of the regional government engineers in Huancayo the following week. This chance happening has the potential to help the project in many ways. RP now has connections with a higher government than the municipal government, which means it may be easier to get permission to do conservation work, and to secure the conservation areas. The regional government is also not as hesitant about increasing conservation standards, unlike the municipal government who only just now came around to trusting RP. Funding opportunities may also open up now that RP has the support of local, municipal, and regional governments.

University Partnership

While in Huancayo, Niyanta was able to set up a time for us to meet with two professors, named Professor M. and Professor L. here, one of whom is a biologist, and the other a forestry engineer at the university located in Huancayo, Peru. He has been creating plans for a research station located between the communities A and B. He has already attained a 50-year concession to create this research station and has the support of both communities. At first, he was hesitant to include the communities in the decision,

but after explaining to him the benefits of having a partnership with the local populations he has agreed to let them play a larger role in the development of the research station.

During the meeting with the two professors, we were able to convince them of the importance of the local community participation. Thankfully this is something one professors, Professor L. already understood. Professor M. has already secured the concession area, and he is now in the processes of generating funds to build a research station within the concession area. The entire research station will cost approximately \$80,000. Because of the rocky start with the communities, there is no construction yet. The concession Professor M. made was about two years ago, and now he needs to start building soon in order to keep the concession alive.

First Contact with Forestry Engineering Students

In late June, Professor L. came to community A with a group of twenty-seven forestry-engineering students ranging from second to seventh semester. I was able to go along with the seventh semester students as they went on a hike into an area of forest virtually untouched by humans. The purpose was to start collecting data for an ecological map of the concession area the Huancayo university currently has. The students took measurements of various trees, collected a small wedge of the trees with a machete, and would GPS the location of the tree sampled. There were two men from community A who served as guides for our trek. We walked for about four hours during which I was able to witness the knowledge of the tree species that Professor L. and his students had.

Even more impressive was the amount of knowledge of one of the community A guides had about the tree and shrub species of the forest. One student, Raul, would frequently ask the local guide what different species of trees were, addressing him as

“maestro”. Consistently the local guide answered and explained various uses of some of the species. It was very encouraging to see the positive interaction between the university students and the guides from community A. Raul asked me if I believed community A could actually create a successful community-based ecotourism business. My response was that they already had the drive, and now that the economic pressure to create this enterprise has increased, they have more incentive to find a different income option. But if the enterprise were to be successful, they would need support from the municipal and regional governments, as well as university partnerships like his university was hoping to provide.

CHAPTER 8

Ethnobotanical Analysis

I wanted to provide options to the two communities that would aid their developing ecotourism business in terms of economic gain, while also maintaining conservation of the environment. One way other enterprises have done this is through the development of alternate income sources in conjunction with the ecotourism business, such as a type of garden (Byczek 2011; Jones 2005). As stated by Wood (1998), “Like all businesses, diversification of income streams within the community provides a stable economic base, even in years showing lower profits” (pg 12). A medicinal garden, however, not only provides an extra attraction to the business, it also creates an educational experience for the tourists and supports the preservation of local ethnobotanical knowledge while preserving those plants within the garden, reducing their extraction from the rainforest (Stone 2011; WWF 2003).

For a side project, I collected ethnobotanical data to document the various plants that were used for their medicinal properties in both communities. I conducted two focus groups, one in community A and one in community B, to obtain a greater part of the data. The rest was collected as I lived in the two communities, at times experiencing first-hand the medicinal properties of some of the plants as circumstances demanded.

Results

The survey yielded a total of nineteen plants or trees, not including various fruits that were also used for medicinal properties. Of these plants, eleven medicinal uses were identified (Fig. 25). The most common ailment was for gastrointestinal distress, typically

in children. The granadilla and banana were two fruits, not included in the analysis, which also aided gastrointestinal regulation in children. I took the analysis one step further, looking at ethnobotanical, pharmaceutical, medical, and botany journals to see other clinically proven uses of the plants, and to look for any overlap with the information I was given. Table 33 shows the results of this analysis, where 63 clinically researched uses of the same species of plants were identified. All of the results I obtained from the community members overlapped with the results from the academic journals.

During the focus groups I asked the community members if the idea of a medicinal garden was something they would enjoy creating. Everyone was unanimous that the garden was a good plan, and that it would allow the children in the community to learn more about the cloud forest vegetation. Some of the community members expressed excitement that they would get to share the knowledge of their ancestors, allowing the knowledge to last longer.

Education is a necessary outcome for a tourism enterprise to be defined as ecotourism (Diamantis 1999; Nyaupane and Thapa 2004; Reimer and Walter 2013). A medicinal garden provides the tourists and host communities – especially the children – the opportunity to gain local knowledge of the various plants that can be used for their medicinal properties (Ohl-Schacherer, et al. 2008; Rehecho, et al. 2011). Not only does the garden provide a source of income for the host community, it also supports social cohesion in the community where all members contribute to maintaining the garden and sharing knowledge. The garden also serves as a method of conservation, where some of the indigenous tree and plant species from the rainforest are replanted within the

communities. In this way, the medicinal garden contributes to all three aspects of sustainable use.

Cases in Meta-Analysis

There were seven cases in my meta-analysis where some sort of medicinal garden, or medicinal plant attraction, was utilized as an attraction to the ecotourism enterprise (Table 34). Two of these cases reported the medicinal garden as a main attraction. CS #28 (Community Tours Sian Ka'an, Appendix BB) is an enterprise that is based exclusively on the development of the medicinal garden as a conservation initiative. The ecotourism enterprise developed later provides monetary support for the conservation initiative.

Besides the economic and social benefits to communities A and B, conservation of this area of cloud forest will help to conserve plants containing compounds that are utilized in several of today's pharmaceuticals for various viral and bacterial infections (see Table 33 for references). Preservation may not be an large-scale option anymore, but conservation certainly is through the use of sustainable development techniques such as community-based ecotourism. Instead of circulating discourse on the negative effects ecotourism can, and at times does, create, such issues should be addressed in practice to increase the success stories and move us closer to a solution to human-environment coexistence.

PART III
DISCUSSION and CONCLUSION

CHAPTER 9

Discussion

Community-Based Ecotourism as a Method of Sustainable Development

Community-based ecotourism can provide a framework for the provision of economic, social, and environmental sustainability (Backman, et al. 2000; Butcher 2006; Cheia 2013). Based on the analyses in this thesis, it is in the developing stages of a community-based ecotourism enterprise that the host population must first be intricately involved, and their involvement sustained throughout the longevity of the enterprise. Through direct involvement in the development of the enterprise, the host community gains empowerment through necessary training in various skills needed for the longevity of the enterprise (Coria 2011; Schellhorn 2010).

It is important to note that those organizations, be they governmental, non-governmental, private, or non-profit, that are involved with community-based ecotourism development provide an organizational framework that is conducive to the education level of the host community. Having a system of initial co-ownership/management is a very effective way for gradually giving full ownership and management responsibility to the host community (Diamantis 1999; Plummer and Fitzgibbon 2004; UNDP 2012g). Such a system helps to ensure the empowerment of the host community, and thus a higher rate of enterprise longevity.

Importance of Multiple Income Sources

Rarely does community-based ecotourism provide enough economic sustainability to the host community (Liu, et al. 2012). Developing multiple income

outlets can alleviate the exclusive reliance on lodging fees (Eagles 2002; Lindberg 1991). The methods of utilizing multiple income sources within this meta-analysis are variable and provide excellent examples of the types of income outlets that can be developed to support the longevity of the community-based ecotourism enterprise or conservation area.

What was interesting to see in this meta-analysis was the development of ecotourism as a secondary source of income that served to support a conservation initiative. Table 35 lists the seventeen enterprises that utilized ecotourism as a secondary income source. These cases are unique in that, either conservation was the primary goal of the entire endeavor, not necessarily economic gain, or the host communities saw the economic benefit from increased conservation of their terrestrial or marine area. One example comes from CS #19 (Velondriake Ecotourism, Appendix S), where the political body of the host communities had already established laws defining times of the year that extraction of marine resources was not permitted (UNDP 2012l). These extraction times allowed for the regeneration of the marine species, thus making the harvests significantly greater when extraction was allowed (UNDP 2012l).

Host communities in this meta-analysis saw the damage that was being done to the natural environment, either by themselves from unsustainable agriculture or fishing, or by an outside force in the form of deforestation, and took action to reduce the amount of environmental damage by creating conservation initiatives. These conservation initiatives in turn became part of the ecotourism attraction and a method of employment for the host communities. Developing multiple income sources also gives a level of empowerment to the host community because they are able to develop multiple skills not offered, or even accessible, to them before the creation of the enterprise (Eagles 2002).

Empowerment of the Host Community

The empowerment of the host community is crucial to the longevity of the ecotourism enterprise (Coria 2011; MB 2012; Schellhorn 2010). Empowerment has a lot to do with the varying relations of power between the host community and the outside entity interacting with them (Buckley 2009). Based on the types of ownership/management in Table 4, we can extrapolate where the power lies within the infrastructure of the enterprise. I designed logical models to observe the relations of power in the five ownership/management types. Please refer to the key in Figure 26 to understand the models.

For Type 1 ownership/management, the power lies with the outside entity (Fig. 27). All of the project ideas and consultation of the project ideas happen internally within the outside entity. The implementation of the ideas is also carried out by the outside entity. The effect of the decisions made by the outside entity, however, directly affects the host community. The host community, in this case, does not attain much, if any, power over the development of the ecotourism enterprise, and they are left to accept the decisions made by the outside entity with a low degree of empowerment.

For Type 2 ownership/management, the power lies primarily with the host community (Fig. 28). The host community provides ideas for the enterprise, and the outside entity consults the host community on the ideas they come up with. After consultation, the projects are implemented by the host community, which also directly affects them. Although most of the power lies with the host community, they are able to pass ideas through the outside entity to get an outsiders perspective – a perspective ideally based on experience in the tourism industry. In this sense, power is shared, but the

amount of community empowerment is greater because of the consultation aspect by the outside entity.

For Type 3 ownership/management, the power lies primarily with the outside entity (Fig. 29). The host community, in this case, has the consultation power. Ideas are provided by the outside entity and then passed to the host community for their input about the development ideas. The host community, in this way, retains a level of power in the decision making process that will directly affect their livelihoods, empowering them to develop their skills in preparation for increased ownership/management responsibility.

For Type 4 ownership/management, power is equally shared between the outside entity and host community (Fig. 30). This is an example of co-ownership/co-management of the enterprise. Ideas and consultations are discussed between the two actors, and a decision is made and implemented into the enterprise by both actors. Empowerment of the host community is attained through a process of gradual integration into ownership/management positions.

For Type 5 ownership/management, the host community maintains the power over the enterprise (Fig. 31). All decisions are made and consulted within the host community, typically through some sort of local political body or other type of local organizational structure. However, power is only as useful as the amount of empowerment attained by the host community. An un-empowered host community with all the power over the enterprise might actually make decisions that hinder the development of the enterprise because they had not been effectively empowered through various training and education. Types 2, 3 and 4 seem to have the best organizational structure for a developing community-based ecotourism enterprise because the host

community has the opportunity to gain experience, to be empowered, with the help of the outside entity.

Scheyvens (1999) provides a model of identifying the type of empowerment attained in the host community. She identifies four distinct types of empowerment: economic, psychological, social, and political. When identifying economic empowerment, the main identifying factor is money that is distributed to multiple households in the community. These funds can then leach into indirect benefits to the host community, such as increased healthcare and access to resources such as clean water.

The effect of economic empowerment leads to the occurrence of social and psychological empowerment. Psychological empowerment is identified by increased self-esteem within the host population, be it about their economic standing or an individual's pride about his or her culture (Scheyvens 1999). This was identified in CS #s 16 (Rumbo Al Dorado Ecotourism, Appendix P), 22 (Tetepare, Appendix V), and 26 (Pemuteran Bay Coral Protection Foundation, Appendix Z) in the meta-analysis. All these case studies identified increased self-esteem and/or increased pride in the local culture as an indirect benefit to the development of the community-based ecotourism enterprise or conservation effort. Social empowerment, too, goes along the lines of indirect benefits.

Social empowerment is identified through increased social cohesion, and at times the sequestering of funds specifically for social development projects. Such projects include scholarships for students, or, like with the case of community A, a loan repayment fund that was set up for the purchase of a moto-taxi that secondary school students can take to school (Scheyvens 1999). Social cohesion was identified in CS #s 4

(Mapu Lahual Network of Indigenous Parks, Appendix E), 17 (Chalalán Eco-Lodge, Appendix Q), 18 (Batu Puteh Community Ecotourism Cooperative, Appendix R), 19 (Velondriake Ecotourism, Appendix S), 21 (Nguna-Pele Marine and Land Protected Area Network, Appendix U), and 22 (Tetepare, Appendix V). Social empowerment, as well as psychological empowerment, can also be identified through the increasing amount of gender and ethnic equality within the host community. In several cases in this meta-analysis, the empowerment of women led to the creation of alternative income sources and the financial independence of women. CS #8 is one such example, where a women's organization ended up creating thirteen women's self-help groups that provide support and employment exclusively to women (Moeurn, et al. 2008).

CS #10 (Kapawi, Appendix J) provides an excellent example of representation of ethnic minority groups. Daniel Koupermann, the main instigator of the Kapawi ecotourism enterprise, acknowledged that the Candoros organization started to be viewed as a sort of charity to the Quechua ethnic group, who are the ethnic majority in the host community (Stronza 2003). He quickly combated the issue by ensuring that the Achuar, the ethnic minority, be involved with every aspect of ownership and management of the enterprise, as to not disintegrate their cultural practice of giving without expecting something in return (Stronza 2003).

Political empowerment is identified through the presence of a local political structure that represents the ideals, wants, and needs of the entire host community (Scheyvens 1999). This type of empowerment can also extend to the politics of the larger economy, where increased trust by the host community to the overarching government is achieved, or recognition of the local politics of the host population is achieved

(Scheyvens 1999). There were two cases in this meta-analysis, CS #s 19 (Velondriake Ecotourism, Appendix S) and 26 (Pemuteran Bay Coral Protection Foundation, Appendix Z), where the local laws were used as a framework for resource control and land ownership that were recognized by the larger political body of the country (UNDP 2012l; UNDP 2013a).

Identification of the different types of host community empowerment, therefore, can serve as an identifier of the sustainability of the economic and social aspects of the enterprise. The environmental sustainability factor can be observed through the resulting empowerment of the host community with increased knowledge about the global importance of their natural environment and the projects they pursue to ensure a higher than originally maintained level of environmental protection.

Future Growth of the Industry

In terms of future directions of community-based ecotourism, what must be remembered are the types of economic activities that community-based ecotourism is attempting to replace, which are chiefly methods of large-scale deforestation. Employment in the timber and oil extraction industries will offer economic gain to the local population, and these employers know how to manipulate the local populations by offering them gifts in exchange for entering, and ultimately decimating, their land (Dauvergne 1998). What are not revealed to the local populations are the temporary nature of the income, the risk of being displaced from what is often their indigenous land, and the disappearance of flora and fauna they may be reliant on for food.

The bottom-up approach within the infrastructure of community-based ecotourism acts in direct adherence to the needs of the local population (Bossel 1999). But success of

the enterprise goes beyond the organizational structure alone. The local population the enterprise will be established in plays a large part in developing a successful community-based ecotourism enterprise that evolves into a replicable sustainable development strategy. If the local population does not have the drive or want to change their current agricultural or other unsustainable income habits, they must not be forced into doing so. Many of these local populations have been harvesting the same way for centuries; some longer than the United States has been a country (DeWalt 1994).

It is clear that NGOs have a proven track record in assisting with development of community-based ecotourism, but being not-for-profit makes the finding of funding resources difficult. Without funding, the training the host community needs in order to be empowered may not be attained. It may not always be that the NGO is refusing to offer the training, but rather the funding resources are not as readily accessible. Here are two areas that can continue to be improved upon – the generation of funding for sustainable development techniques, and NGOs that can competently create sustainable development projects.

The actors involved in community-based ecotourism development must also be of a certain type. Not all people have the passion to put in the required amount of work necessary to develop an effective community-based ecotourism enterprise. I was struck with a quote from Corporação Nacional Forestal official Alejandro Escobar in McAlpin (2008); “There is a professional motivation and a personal motivation that goes beyond the job that one has for doing things well – for intervening in a good way and creating good strategies” (pg. 61). Maintaining dedication to the empowerment of the host

community and to the conservation of the natural environment are necessary characteristics of the outside entity attempting to empower the host community.

Now that community-based ecotourism is receiving so much attention by the United Nations Development Committee, and various universities and NGOs across the globe, there are models for community-based ecotourism development that can be followed and implemented in almost any part of the globe. Replicability makes these types of sustainable development much easier to create the right way. However, this type of sustainable development is one that adheres to a global economy – a capitalist paradigm of supply and demand – that does not, in essence, provide long-term economic, social, or environmental sustainability (Cater 2006). The next step in the future of sustainable development is to adhere to a paradigm of human-environment coexistence.

Sustainability Education

In order to maintain the paradigm that human society and the natural world can coexist, the paradigm must continue to be integrated into our education systems. Ecotourism is a product of the combination of the global economy and the new ecologically sensitive paradigm through the development of methods to reduce environmental degradation by attempting to sell the natural environment (Cater 2006; Douglas 2014). We created a demand for pristine wilderness through a cathartic notion of environmental nostalgia. Although resourceful and innovative, if we are to create new methods of conservation, while the global population continues to increase exponentially and at a rate that the natural environment cannot sustain, we must first change the ways and rate at which we take from the environment (Rees 1990).

Such a statement is not novel or revolutionary, but it should still remain in discourse if change is to occur. There needs to be a change in how we are educating the next generation, emphasizing the relationship between natural ecology and human society, because it is the next generation that will feel the brunt of the previous generation's anthropocentrism (Scott 2002). They will either continue the destructive habits, or attempt to reduce the damage being done on a global scale.

A question that remains is: from where must this education stem? To answer simply, there is no single academic area; it must be a collaborative effort between natural and social sciences (Hanley 2005). The complexity that is sustainability science cannot be watered-down because of its intricate connections to cultural ecology, natural ecology, and political ecology (Hanley 2005; Liu, et al. 2007). As stated in UNESCO's Draft International Implementation Scheme (2004), "No aspect of life is left untouched by the pursuit of sustainable development, just as development that is increasingly sustainable will have an impact in every part of life. Complexity and interconnectedness mean that ESD [education for sustainable development] must convey messages that are subtle yet clear, holistic yet tangible, multi-dimensional yet direct" (pg 13).

According to Rees (1990), the original function of sustainable development is to mediate material development on the basis of adhering to the ecological limits of the natural world. Based on such a definition, it would be beneficial to include local, or indigenous, knowledge of natural systems throughout the world within the framework of sustainability education (Leach and Fairhead 2002; Nakashima and Roué 2002). Within the framework of community-based ecotourism, then, empowerment of the host communities can lead to the enlightenment of Western society about the delicate

relationship between ecological regrowth and social development, based on the exchange of ideas and culture between the host community and outside entity. The host populations included in many community-based ecotourism endeavors already understand the ecological systems of their environment, acknowledging that the input-output relationship between mankind and nature must be in equilibrium (Nakashima and Roué 2002).

In a sense, social development and ecological regrowth are based on the 1st and 2nd laws of thermodynamics, where the amount we consume must be equal to ecological carrying capacity of energy/mass input and output (Daly 1990). However, we consume more than the environment can provide and expel waste that is not renewable. As stated by Daly (1990), “We live in a finite world with finite resources”. By including indigenous knowledge in sustainability science education, we open the door to an understanding of ecological systems outside of the global economic context (DeWalt 1994; Nakashima and Roué 2002).

Limitations of this Thesis

The methods in which data was collected for the meta-analysis and the field study portions of this thesis limited the amount of statistical analyses and general inferences that can be made from the data. As far as the method of collecting case studies for the meta-analysis, it would have been preferable to obtain all data in primary format, meaning directly from an owner or manager, even NGO official, who works for the enterprise in question. In this way, the data collection bias, on behalf of the researcher, is reduced because the data is given by individuals from the enterprise in question.

Every community-based ecotourism enterprise is unique because of the varied cultures involved in creating them. When doing a meta-analysis like this, it is important

to include the characteristics that make each enterprise unique in their own way. Such inclusions can help expand the imaginations of current or future practitioners of community-based ecotourism, to help them look for different options not readily thought of before, but that are specific to the culture of the host community – be they the creation of benefits, integration of local laws into resource control, or equitable distribution of funds.

For the meta-analysis, it would also be beneficial to include the longevity of each of the case studies mentioned. The longevity, or time, factor is important when making inferences to the enterprise's success or failure because each case study is assessed based on how long it has been in operation (Fannell 2004; Sharpley 2006). Longevity may have something to do with income generated by the enterprise. Because of this, it would be beneficial to look at the types of income generating activities for each enterprise, which typically requires a direct contact – primary information. CS # 23 (Bunaken Ecotourism – Appendix W) in the meta-analysis within this thesis utilized a park entrance fee, and a percentage of that fee was used to support social development projects. There may have been other enterprises who utilized some sort of entrance fee like this, but it was not documented.

Referring to the meta-analysis again, should the ownership/management styles been ranked on a hierarchical scale, it would be easier to analyze both ownership and management styles together as they relate to other key factors. The total of the combined ownership and management styles could then be weighed against a different key factor to see if there is a relationship between the combination of higher ownership/management styles and the presence of those key factors.

Referring to the methods used in the field study, it would be more beneficial to go door to door to collect all the information on the questionnaires. I was able to do this in community A for some of the material, but time constraints and some language barriers made it difficult to ask all of the questionnaire questions directly to the community members. These issues also resulted in information gaps within the data that was collected. For any community-based ecotourism enterprise, it will be important to continue the mediation process periodically to ensure that the expectations of the host community and the reality of what is being, or that can be, developed coincide.

CHAPTER 10

Conclusion

The main question I sought to answer with this thesis was: what factors may contribute to a successful community-based ecotourism enterprise? The field study is an applied approach that is necessary when analyzing a culturally specific industry such as community-based ecotourism. The key factors listed in the meta-analysis do occur in more than one case study, but not every case study represents the key factors in the same way because local culture affects how the key factors are represented in the enterprise.

The applied aspect of this thesis adds a real-world example of the issues and successes identified in the meta-analysis. It is one thing to look through data collected by other researchers, but to be able to take that data and see the same phenomena occurring in practice adds another level of authenticity to the findings. Through the analyses in the meta-analysis and the field study, it is clear that there are many factors that can contribute to the success of a community-based ecotourism enterprise, but all of them are based on a single determining factor: host community empowerment.

No matter what the level of host community involvement is – whether the host community is intrinsically involved or are only marginal beneficiaries – if they are not taught, not empowered, to accrue benefits or to manage the enterprise themselves, the enterprise will not survive. If it does survive and generate profit without the empowerment of the host community, it may not be adhering to a community-based infrastructure because it is not the host community whom are receiving the benefits.

My initial hypothesis was that I would see the same phenomena in the field study as I did in the cases in the meta-analysis, which did occur. The importance of host community empowerment is seen within the field study and the meta-analysis, where empowerment lead to several key factors such as: increased gender equality, financial assistance, development of a local political system, and varied indirect benefits in one or both of the host communities I stayed with in Peru. NGO Rainforest Partnership, which utilizes a bottom-up approach to their community-based ecotourism management structure, assisted in empowering Communities A and B. I was able to be apart of their managerial structure through the co-development of the management plan and by visiting the two host communities to get their input on the culturally sensitive aspects of the management plan.

The effects of Rainforest Partnership's bottom-up approach have already led to social empowerment within Community A through increased gender representation, where the governmental system in Community A is 50% female; creation of community clean-up days with monetary penalties for non-involvement; and acquirement of a loan for a moto-taxi to transport secondary school children to and from school. These were all ideas created by the residents of Community A, and they are all present phenomena in several of the case studies from the meta-analysis. It will, however, be crucial to continue to nurture the growth of host-community empowerment, including Community B, possibly through education in management and computation. The provision of education in management, computation, conservation, agroforestry, and hospitality were present in several successful cases in the meta-analysis. It was also an NGO that either provided the education, or provided funding so that the host communities could obtain the education

from a more knowledgeable source – perhaps by an organization not only specializing in the training at hand, but also one familiar with the local culture.

There does not seem to be a clear-cut way to evaluate community-based ecotourism because of the high level of influence local culture has on the creation of each individual enterprise. Every enterprise will end up as unique. Community-based ecotourism is more than tourists visiting a natural area, but rather a synergy of environmental conservation and local social development (Ross and Wall 1999). Herein lies the importance of meeting the goals of conservation as well as the needs of the host community – they are connected.

TABLES

Table 1. Enterprise Key Factors

Factor	Explanation
Ownership and Management	Refers to who owns the enterprise and who manages the enterprise. This factor looks directly at how involved the host community is in ownership and management
Presence of Stakeholder Group	Refers to whether or not a stakeholder group exists. If it does, whether it is composed of government, private, non-profit, non-government, the local community, or a combination of those
Gender Representation	Refers to how involved women are in the enterprise: whether involved in ownership, management, or other positions. This factor will highlight efforts to incorporate gender equality
Income from the Enterprise and Entrepreneurial Efforts	Refers to how income is distributed, the percentage of income given to the host community, and any side businesses started by the host community to supply supplemental income, such as handicrafts, taxi services, or selling of agricultural products. This factor also highlights how dependent the host community is on the side businesses, if at all dependent
Indirect Benefits	Refers to the benefits had by the host community as a result of the new enterprise
Presence of Local Political System	Refers to any political system that was already present in the host community, or political system that developed as a result of the new enterprise
Policing of Natural Resources	Refers to any action taken by the host community to police their own resources, whether through employment by a larger governing body or locally by the community members. This factor also highlights any changes to resource control since the development of the enterprise and the legal claim, if any, to the land by the host communities
Migration	Refers to any migration into the host community from other areas, or out of the location of the enterprise, because of the new business. It highlights reasons for the movement into or out of the location of the enterprise and how such movement affected the enterprise
NGO Participation	Refers to any participation by NGOs in the development of the enterprise
Financial Assistance	Refers to any outside financial aid given help fund the new enterprise, be it monetary or in-kind, and where such aid came from

Table 2. Enterprise Basic Information Table

Factor	Explanation
Type of Ecotourist	Refers to the type of recreation sought after by the ecotourist
Protected Area	Refers to the protected area, if any, that the enterprise is located within (national park, conservation area, ect)
Primary Habitat	Refers to the natural habitat the enterprise is located within
Proximity to Large City	Refers to the nearest metropolitan area in reference to the enterprise. Specifically referring to how accessible the enterprise is
Natural Disasters	Refers to any natural disasters, such as hurricanes, typhoons, monsoons, or other weather related phenomena that may hinder the enterprise, or those that have already been encountered
Social or Political Upheaval	Refers to any social or political unrest that has had an affect on the enterprise: safety hazards to international and domestic tourists, rises in prices, closure of national parks, protests, blacklists, ect.

Table 3. Geographic Span of Locations Including Enterprise Name and Conservation Area it is Within

<i>Continent</i>	<i>Individual Cases</i>			
<i>Asia</i>	CS	Country	Enterprise Name	Conservation Area
	8	Cambodia	Chambok Community-based Ecotourism	Community Conservation Zone - Kirirom National Park
	12	Cambodia	Chiphat	Southern Cardamom Protected Area
	6	India	Kokkrebellur	Kokkare Bellur Bird Sanctuary
	7	India	Phansoli Eco Development Committee	Dandeli Wildlife Sanctuary (in buffer zone)
	2	Indonesia	Pangandaran Tourism	Pangandaran Nature Reserve and Pangandaran Recreational Park
	23	Indonesia	Bunaken National Park	Bunaken National Park

Table 3 continued				
	CS	Country	Enterprise Name	Conservation Area
Africa	26	Indonesia	Pemuteran Ecotourism	CMPA (community marine protected area)
	5	Laos	Nam Ha Ecotourism	Nam Ha National Protected Area
	18	Malaysia	Batu Puteh Community Ecotourism Cooperative	Supu Forest Reserve and Kinabatangan Wildlife Sanctuary
	29	Nepal	Baghmara Community Forest User Group	Baghmara Community Forest
	30	Nepal	Ghalegaon Homestay	Annapurna Conservation Area
	1	Thailand	Khao Yai Ecotourism	Khao Yai National Park
	13	Ghana	Wechiau Community Hippo Sanctuary	Wechiau Community Hippo Sanctuary
	20	Ghana	Mesomagur Ecotourism	Kakum National Park
	14	Madagascar	Anja Miray Association	CPA: Anja Miray Association territory
	19	Madagascar	Velondriake Ecotourism	Velondriake LMMA
Central America	15	Costa Rica	Foundation for Monte Alto Forest Reserve	Monte Alto Protected Zone
	25	Honduras	Las Marias	Rio Plato Biosphere Reserve
	27	Honduras	Raista Ecotourism and Butterfly Farm	Rio Plato Biosphere Reserve
North America	28	Mexico	Community Tours Sian Ka'an	Sian Ka'an Biosphere Reserve
Oceania	22	Solomon Islands	Tetepare Ecotourism	CMPA – community marine protected areas
	21	Vanuatu	Nguna-Pele Marine and Land Protected Area Network	CMPA – community marine protected areas

South America	Table 3 continued			
	CS	Country	Enterprise Name	Conservation Area
	17	Bolivia	Chanalán Eco-lodge	Madidi Protected Area
	4	Chile	Mapu Lahual Network of Indigenous Parks (RML)	CPA – community protected area 5 areas defined by land rights of the eight communities
	10	Ecuador	Kapawi	Indigenous land of Achuar, within Kapawi Reserve
	11	Ecuador	Zabalo	Cuyabeno Wildlife Reserve
	24	Ecuador	ASARTY	Sangay National Park
	3	Perú	Casa Matsigenka	Manu National Park
	9	Perú	Posadas Amazonas	Tambopata National Reserve buffer zone
	16	Perú	Rumbo Al Dorado	Pacaya-Samiria National Reserve

Table 4. Categorization of Host Community Ownership and Management Types

Type	Community Ownership Level	Type	Community Management Level
1	Only outside ownership <i>Power lies with outside entity</i>	1	Only outside management <i>Power lies with outside entity</i>
2	Outside owner consults community <i>Small amount of power given to host community by consulting them</i>	2	Outside management consults community <i>Small amount of power given to host community by consulting them</i>
3	Community owned with direct outside advice <i>Most of the power lies with host community, but not all due to lack of experience</i>	3	Community managed with direct outside advice <i>Most of the power lies with host community, but not all due to lack of experience</i>
4	Co-ownership, where community works directly with outside management <i>Equal power between host community and outside entity</i>	4	Co-management, where community works directly with outside management <i>Equal power between host community and outside entity</i>
5	Only community owned <i>All power lies with host community</i>	5	Only community managed <i>All power lies with host community</i>

Table 5. Cases with Type 1 Ownership

CS	Continent	Country	Name	Ownership	Management
1	Asia	Thailand	World Heritage Site	1	2
2	Asia	Indonesia	Pangandaran Tourism	1	2
23	Asia	Indonesia	Bunaken National Park	1	2

Table 6. Cases with Type 2 Ownership

CS	Continent	Country	Name	Ownership	Management
26	Asia	Indonesia	Pemuteran Ecotourism	2	2
28	North America	Mexico	Community Tours Sian Ka'an	2	2

Table 7. Cases with Type 3 Ownership

CS	Continent	Country	Name	Ownership	Management
6	Asia	India	Kokkrellur	3	2

Table 8. Cases with Type 4 Ownership

CS	Continent	Country	Name	Ownership	Management
5	Asia	Laos	Nam Ha Ecotourism	4	4
7	Asia	India	Phansoli Eco Development Committee	4	5
9	South America	Peru	Posadas Amazonas	4	4
12	Asia	Cambodia	Chiphat	4	5
16	South America	Perú	Rumbo Al Dorado	4	4
19	Africa	Madagascar	Velondriake Ecotourism	4	4
20	Africa	Ghana	Mesomagur Ecotourism	4	4

Table 9. Cases with Type 5 Ownership

CS	Continent	Country	Name	Ownership	Management
3	South America	Peru	Casa Matsigenka	5	5
4	South America	Chile	Mapu Lahual Network of Indigenous Parks (RML)	5	5
8	Asia	Cambodia	Chambok Community-based Ecotourism	5	3
10	South America	Ecuador	Kapawi	5	5
11	South America	Ecuador	Zabalo	5	5
13	Africa	Ghana	Wechiau Community Hippo Sanctuary	5	5
14	Africa	Madagascar	Anja Miray Association	5	5
15	Central America	Costa Rica	Foundation for Monte Alto Forest Reserve	5	4
17	South America	Bolivia	Chanalán Eco-lodge	5	5
18	Asia	Malaysia	Batu Puteh Community Ecotourism Cooperative	5	5
21	Oceania	Republic of Vanuatu	Nguna-Pele Marine and Land Protected Area Network	5	5
22	Oceania	Solomon Islands	Tetepare Ecotourism	5	5
24	South America	Ecuador	ASARTY	5	5
25	Central America	Honduras	Las Marias	5	3
27	Central America	Honduras	Raista Ecotourism and Butterfly Farm	5	3
29	Asia	Nepal	Baghmara Community Forest User Group	5	4

Table 9 continued

CS	Continent	Country	Name	Ownership	Management
30	Asia	Nepal	Ghalegaon Homestay	5	5

Table 10. Specifics of Indirect Benefit Types

Benefit	Description
Education	Refers to any educational incentive or training offered to the host population, be they through workshops, training, scholarships, or building of schools
Healthcare	Refers to any benefits having to do with increased access to healthcare, such family planning, dentistry, or sexual health workshops
Recognition by Overarching Government	Refers to the acknowledgement of the host community by the overarching regional or national government, acquisition of land titles, and increased trust had by the host community and overarching government
Governmental Support	Refers to monetary or in-kind support given to the host community by the overarching government for the ecotourism enterprise
Social Cohesion	Refers to the explicit statement by the host community that they see the community in better relations among each other, including development or strengthening of local political systems and acknowledgement of increased pride in local culture
Increased Gender Equality	Refers to the increased involvement of females in community meetings and government
Increased Minority Involvement	Refers to increased involvement and recognition of minority ethnic groups in community meetings and government
Increased Conservation Awareness	Refers to increased awareness of the importance of the natural environment to the host community's livelihoods and culture

Table 11. Types of Resource Control

Type	Description
N	Takes no action
ND	No direct policing, only if there are obvious trespassers
V	Voluntarily reports to an authority
EO	Employed as monitors by outside entity
ES	Employed as monitors based on development of local policing system

Table 12. Type N Resource Control – Takes no action

CS	Continent	Country	Name	Prot. Area	Owner	Manager	Resource Control
2	Asia	Indonesia	Pangandaran Tourism	Pangandaran Nature Reserve and Pangandaran Recreational Park	1	1	N
20	Africa	Ghana	Mesomagur Ecotourism	Kakum Nat. Park	4	4	N

Table 13. Type ND Resource Control – No direct policing organization

CS	Continent	Country	Name	Prot. Area	Owner	Manager	Resource Control
25	Central America	Honduras	Las Marias	Rio Plato Biosphere Reserve	5	3	ND
27	Central America	Honduras	Raista Ecotourism and Butterfly Farm	Rio Plato Biosphere Reserve	5	3	ND
28	North America	Mexico	Community Tours Sian Ka'an	Sian Ka'an Biosphere Reserve	2	2	ND
30	Asia	Nepal	Ghalegaon Homestay	Annapurna Conservation Area	5	5	ND

Table 14. Type V Resource Control – Voluntary Reporting

CS	Continent	Country	Name	Prot. Area	Owner	Manager	Resource Control
4	South America	Chile	Mapu Lahual Network of Indigenous Parks (RML)	5 areas defined by land rights of the eight communities	5	5	V
5	Asia	Laos	Nam Ha Ecotourism	Nam Ha National Protected Area	4	4	V
9	South America	Peru	Posadas Amazonas	Tambopata National Reserve buffer zone	4	4	V
10	South America	Ecuador	Kapawi	Indigenous land of Achuar, Kapawi Reserve	5	5	V
11	South America	Ecuador	Zabalo	Cuyabeno Wildlife Reserve	5	5	V

Table 14 continued

CS	Continent	Country	Name	Prot. Area	Owner	Manager	Resource Control
16	South America	Perú	Rumbo Al Dorado	Pacaya-Samiria National Reserve	4	4	V
17	South America	Bolivia	Chanalán Eco-lodge	Madidi Protected Area	5	5	V
18	Asia	Malaysia	Batu Puteh Community Ecotourism Cooperative	Supu Forest Reserve and Kinabatangan Wildlife Sanctuary	5	5	V
21	Oceania	Republic of Vanuatu	Nguna-Pele Marine and Land Protected Area Network	CPA, community protected areas	5	5	V
24	South America	Ecuador	ASARTY	Sangay National Park	5	5	V

Table 15. Type EO Resource Control – Employed by outside entity

CS	Continent	Country	Name	Prot. Area	Owner	Manager	Resource Control
1	Asia	Thailand	World Heritage Site	Khao Yai National Park	1	2	EO
3	South America	Peru	Casa Matsigenka	Manu National Park	5	5	EO
6	Asia	India	Kokkrellur	Kokkare Bellur Bird Sanctuary	3	2	EO
7	Asia	India	Phansoli Eco Development Committee	Dandeli Wildlife Sanctuary (in buffer zone)	4	5	EO
8	Asia	Cambodia	Chambok Community-based Ecotourism	Community Conservation Zone - Kirirom National Park	5	3	EO
12	Asia	Cambodia	Chiphat	Southern Cardamom Protected Area	4	5	EO
19	Africa	Madagascar	Velondriake Ecotourism	Velondriake LMMA	4	4	EO
23	Asia	Indonesia	Bunaken National Park	Bunaken National Park	1	2	EO

Table 16. Type SE Resource Control – Self-employed

CS	Continent	Country	Name	Prot. Area	Owner	Manager	Resource Control
13	Africa	Ghana	Wechiau Community Hippo Sanctuary	Wechiau Community Hippo Sanctuary	5	5	SE
14	Africa	Madagascar	Anja Miray Association	Anja Miray Association territory	5	5	SE
15	Central America	Costa Rica	Foundation for Monte Alto Forest Reserve	Monte Alto Protected Zone	5	4	SE
22	Oceania	Solomon Islands	Tetepare Ecotourism	CPA (community protected area), CMPA (community marine protected areas)	5	5	SE
26	Asia	Indonesia	Pemuteran Ecotourism	CMPA (community marine protected area)	2	2	SE
29	Asia	Nepal	Baghmara Community Forest User Group	Baghmara Community Forest	5	4	SE

Table 17. Migration into the Host Community Occurs

CS	Continent	Country	Name	Migration
1	Asia	Thailand	World Heritage Site	Yes, illegal building of houses within and outside park
2	Asia	Indonesia	Pangandaran Tourism	Yes, from vendors
9	South America	Peru	Posadas Amazonas	Yes, because of marriage
12	Asia	Cambodia	Chiphat	Yes, by tourism guides
17	South America	Bolivia	Chanalán Eco-lodge	Yes, by previous residents

Table 18. Migration into the Host Community Did Not Occur/Was Not Allowed

CS	Continent	Country	Name	Migration
5	Asia	Laos	Nam Ha Ecotourism	no
6	Asia	India	Kokkrellur	no
7	Asia	India	Phansoli Eco Development Committee	no
8	Asia	Cambodia	Chambok Community-based Ecotourism	no, not allowed
10	South America	Ecuador	Kapawi	no
11	South America	Ecuador	Zabalo	no
13	Africa	Ghana	Wechiau Community Hippo Sanctuary	no
14	Africa	Madagascar	Anja Miray Association	no
15	Central America	Costa Rica	Foundation for Monte Alto Forest Reserve	no
16	South America	Perú	Rumbo Al Dorado	no, not allowed
18	Asia	Malaysia	Batu Puteh Community Ecotourism Cooperative	no
19	Africa	Madagascar	Velondriake Ecotourism	no
20	Africa	Ghana	Mesomagur Ecotourism	no
21	Oceania	Republic of Vanuatu	Nguna-Pele Marine and Land Protected Area Network	no
22	Oceania	Solomon Islands	Tetepare Ecotourism	no
23	Asia	Indonesia	Bunaken National Park	no
25	Central America	Honduras	Las Marias	no

Table 18 continued

CS	Continent	Country	Name	Migration
26	Asia	Indonesia	Pemuteran Ecotourism	no
27	Central America	Honduras	Raista Ecotourism and Butterfly Farm	no

Table 19. Migration Out of the Host Community

CS	Continent	Country	Name	Migration
4	South America	Chile	Mapu Lahual Network of Indigenous Parks (RML)	Yes, but has stopped
24	South America	Ecuador	ASARTY	Want younger generation to stop moving away
28	North America	Mexico	Community Tours Sian Ka'an	No, leaving the communities has reduced b/c of local job availability
29	Asia	Nepal	Baghmara Community Forest User Group	Yes, but the undeveloped societies in the country are largely nomadic
30	Asia	Nepal	Ghalegaon Homestay	Yes, but out of the village b/c of lack of income from tourism

Table 20. Types of NGO Involvement

Type	Description
N	No NGO involvement, at least not stated in the available publication
IN	Helped only with in-kind donation, such as providing training
FI	Helped only financially
IN-FI	Helped with in-kind donation and financially
S	Successfully integrated the host community into ownership and management positions

Table 21. Cases with Type N – No NGO Involvement

CS	Continent	Country	Name	NGO effect
14	Africa	Madagascar	Anja Miray Association	N
30	Asia	Nepal	Ghalegaon Homestay	N

Table 22. Cases with Type FI – Financial Help from NGO

CS	Continent	Country	Name	NGO effect
11	South America	Ecuador	Zabalo	FI
13	Africa	Ghana	Wechiau Community Hippo Sanctuary	FI
23	Asia	Indonesia	Bunaken National Park	FI
29	Asia	Nepal	Baghmara Community Forest User Group	FI, but weak follow up

Table 23. Cases with Type IN –In-kind Donation from NGO

CS	Continent	Country	Name	NGO effect
1	Asia	Thailand	World Heritage Site	IN, effective with training
4	South America	Chile	Mapu Lahual Network of Indigenous Parks (RML)	IN, effective with training
9	South America	Peru	Posadas Amazonas	IN

Table 24. Cases with Type FI-IN – Financial and In-kind Donation from NGO

CS	Continent	Country	Name	NGO effect
5	Asia	Laos	Nam Ha Ecotourism	FI-IN
10	South America	Ecuador	Kapawi	FI-IN
12	Asia	Cambodia	Chiphat	FI-IN
16	South America	Perú	Rumbo Al Dorado	FI-IN
17	South America	Bolivia	Chanalán Eco-lodge	FI-IN
18	Asia	Malaysia	Batu Puteh Community Ecotourism Cooperative	FI-IN
21	Oceania	Republic of Vanuatu	Nguna-Pele Marine and Land Protected Area Network	FI-IN
22	Oceania	Solomon Islands	Tetepare Ecotourism	FI-IN
27	Central America	Honduras	Raista Ecotourism and Butterfly Farm	FI-IN

Table 24 continued

CS	Continent	Country	Name	NGO effect
28	North America	Mexico	Community Tours Sian Ka'an	FI-IN

Table 25. Cases with Type S – Host Community Successfully Integrated into Complete Ownership/Management with Direct Help from NGO/NPO

CS	Continent	Country	Name	NGO effect
6	Asia	India	Kokkrebellur	S
7	Asia	India	Phansoli Eco Development Committee	S
8	Asia	Cambodia	Chambok Community-based Ecotourism	S
15	Central America	Costa Rica	Foundation for Monte Alto Forest Reserve	S
19	Africa	Madagascar	Velondriake Ecotourism	S
20	Africa	Ghana	Mesomagur Ecotourism	S
24	South America	Ecuador	ASARTY	S
25	Central America	Honduras	Las Marias	S
26	Asia	Indonesia	Pemuteran Ecotourism	NPO, S

Table 26. Average Distances of Enterprise to Large City

	N	Range	Minimum	Maximum	Mean	Std. Deviation
Average Distance	30	287	18	305	117.16	66.630
Valid N (listwise)	30					

Table 27. Crosstabulation of Management Style to Resource Control Type

		Resource Control Type					Total
		EO	N	ND	SE	V	
Management Style	1 Count	0	1	0	0	0	1
	% within Resource Control	0.0%	50.0%	0.0%	0.0%	0.0%	3.3%
	2 Count	3	0	1	1	0	5
	% within Resource Control	37.5%	0.0%	25.0%	16.7%	0.0%	16.7%
	3 Count	1	0	2	0	0	3
Management Style	% within Resource Control	12.5%	0.0%	50.0%	0.0%	0.0%	10.0%
	4 Count	1	1	0	2	3	7
	% within Resource Control	12.5%	50.0%	0.0%	33.3%	30.0%	23.3%
	5 Count	3	0	1	3	7	14
	% within Resource Control	37.5%	0.0%	25.0%	50.0%	70.0%	46.7%
Total	Count	8	2	4	6	10	30
	% within Resource Control	100%	100%	100%	100%	100%	100%

Table 28. Crosstabulation of Ownership Style to Resource Control Type

		Resource Control Type					Total
		EO	N	ND	SE	V	
Ownership Style	1 Count	2	1	0	0	0	3
	% within Resource Control	25.0%	50.0%	0.0%	0.0%	0.0%	10.0%
	2 Count	0	0	1	1	0	2
	% within Resource Control	0.0%	0.0%	25.0%	16.7%	0.0%	6.7%
	3 Count	1	0	0	0	0	1
Ownership Style	% within Resource Control	12.5%	0.0%	0.0%	0.0%	0.0%	3.3%
	4 Count	3	1	0	0	3	7
	% within Resource Control	37.5%	50.0%	0.0%	0.0%	30.0%	23.3%
	5 Count	2	0	3	5	7	17
	% within Resource Control	25.0%	0.0%	75.0%	83.3%	70.0%	56.7%
Total	Count	8	2	4	6	10	30
	% within Resource Control	100%	100%	100%	100%	100%	100%

Table 29. Pearson's Chi-Squared Test of Independence – Management Style to Resource Control

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	31.554 ^a	16	.011
Likelihood Ratio	24.727	16	.075
N of Valid Cases	30		

a. 25 cells (100.0%) have expected count less than 5. The minimum expected count is .07

Table 30. Pearson's Chi-Squared Test of Independence – Ownership Style to Resource Control

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	21.674 ^a	16	.154
Likelihood Ratio	25.106	16	.068
N of Valid Cases	30		

a. 24 cells (96.0%) have expected count less than 5. The minimum expected count is .07

Table 31. Elements of the Management Plan

Element	Description
Agreements	Host population Governmental body(s) NGO(s) Other actors involved
Attractions	Hiking Birding Camping Things for the ecotourist to do
Environmental Impact	By activities By increased amount of people in the area
Site Infrastructure	Ecolodge Campsite Plumbing Waste disposal First Aid Transportation
Cultural Considerations	Contact history and heritage Positive and negative impacts on the culture of the host community How much of the local culture could be experienced by the ecotourists
Economic Issues	Employment Training (hospitality, sanitization, management, disputes)
Health, Safety, and Security	Laws and regulations Staff responsibilities Visitor information
Tourism Sector	Local and regional market analysis Quality assurance certification Networking Partnership
Trial Runs	How they were conducted Results Responses from tourists and host population

Table 32. Cases Utilizing Agroforestry

CS	Continent	Country	Name	Agroforestry
2	Asia	Indonesia	Pangandaran Tourism	Agro-tourism idea in the making
11	South America	Ecuador	Zabalo	Agroforestry
15	Central America	Costa Rica	Foundation for Monte Alto Forest Reserve	Agroforestry
18	Asia	Malaysia	Batu Puteh Community Ecotourism Cooperative	Agroforestry and silviculture

Table 33. Clinical Experiments on Plants Identified During Field Work in Communities A and B

Local Name	Scientific Name	Clinical Uses		References (matched to row)
Matico	<i>Piper aduncum</i>	Stomach aches ¹ insect repellent ¹ (insecticide) antimicrobial ¹ , fungicidal ¹ ; Antiseptic ⁴ (reduce infection), antidiarrheic ⁷ , tonic ⁷ , astringent ⁷ (tissue constrictor), antirheumatic ⁷ (prevents rheumatism, stiffness and pain in muscles)	styptic ⁷ (for hemorrhoids), antiparasite ⁹ (Leishmaniasis , skin lesions) essential oil ⁶ fever ³ infection ^{3,8} menstrual pain ⁵ tuberculosis ^{2,3} bronchitis ^{2,3} snake bite ⁹	¹ (Baldoquia, et al. 1999) ² (Bussmann, et al. 2007) ³ (Bussmann, et al. 2010b) ⁴ (Bussmann, et al. 2010a) ⁵ (Ceuterick, et al. 2011) ⁶ Guilherme (Maia, et al. 1998) ⁷ (Kloucek, et al. 2005) ⁸ (Luziatelli, et al. 2010) ⁹ (Molander, et al. 2012) ¹⁰ (Torres-Santos, et al. 1999)
Sangre de grado (Dragon's Blood)	<i>Croton lechleri</i>	neurogenic inhibitor to hyperalgesia ⁶ (pain and itching) diarrhea ^{6,9} intestinal pain ^{2,7} gastric ulcers ^{2,6} mouth infection ^{1,5,8} back pain ^{1,5,8} disinfectant ^{1,5,8} postpartum tonic ^{1,8} rheumatism ^{1,8}	aphrodesiac ^{1,8} disinfectant ^{1,8} detox ² antimalarial ⁴ antiviral ⁹ , immunomodua tor ⁹ vaginal antiseptic ⁹ gastrointestinal function ⁹ sore throat ⁹ internal injuries ³	¹ (Bussmann, et al. 2010a) ² (Ceuterick, et al. 2011) ³ (Desmarchelier, et al. 1996) ⁴ (Kvist, et al. 2006) ⁵ (Luziatelli, et al. 2010) ⁶ Miller et al 2000 ⁷ (Miller, et al. 2000) ⁸ (Sanz-Biset, et al. 2009) ⁹ (Williams 2001)
Amargon	<i>Quassia amara</i>	Analgesic ⁵ mild sedative ⁵ antidematogenic ⁵	gastric ulcers ⁴ Antimalarial ^{1,2} , ³ (in vitro and in vivo)	¹ (Ajaiyeoba, et al. 1999) ² (Bertani, et al. 2006) ³ (Cachet, et al. 2009) ⁴ (Toma, et al. 2002)

Table 33 continued

Local Name	Scientific Name	Clinical Uses		References (matched to row)
				⁵ (Toma, et al. 2003)
Chanca piedra	<i>Phyllanthus niruri</i>	Antibacterial ^{6,7} (Staphylococcus aureus, Salmonella typhi, Escherichia coli stomach ^{3,4,5,7} kidney ^{3,4,5,7} spleen ^{4,7} gonorrhea ^{4,7} menorrhagia ^{4,7} dysentary ^{4,7} diarrhea ^{4,7} gallstones ^{4,7} diuretic ^{4,7} kidney stones ^{4,7} urinary infection ^{2,7} tartar build up ^{2,7} memory loss ^{2,7} anticancer ^{2,7} antifungal ^{2,7}	radioprotective ^{2,7} immunomodulatory ^{2,7} diabetes ^{2,7} hepatoprotective ^{2,7} (liver protection) contraceptive ^{1,7,9} aphrodesiac ^{1,7,9} antiviral ^{1,7,9} antiplasmodial ⁷ (antimalarial) antioxidant ⁷ analgesic ⁷ sore throat ⁴ gallbladder ^{2,3} bladder stones ³ kidney ³ liver ³ detox blood immunomodulator ⁹	¹ (Bagalkotkar, et al. 2006) ² (Bussmann, et al. 2007) ³ (Bussmann, et al. 2010b) ⁴ (Ceuterick, et al. 2011) ⁵ (Desmarchelier, et al. 1996) ⁶ (Ekwenye and Njoku 2006) ⁷ (Patel, et al. 2011) ⁸ (Rehecho, et al. 2011) ⁹ (Williams 2001)
Chupa sangre	<i>Oenothera rosea</i>	Antiinflammatory ³ colic ²	infection ² liver ailments ¹	¹ (Ceuterick, et al. 2011) ² (Luziatelli, et al. 2010) ³ (Rehecho, et al. 2011)
Boldo	<i>Peumus boldus</i>	Kidney detox ^{1,2,4,6,7} liver detox ^{1,2,4,6,7} antioxidant ⁷ , antidiabetic ^{5,7} anti-inflammatory ⁷ , antiatherogenic ⁷ kidney inflammation ^{1,2,3}		¹ (Bussmann, et al. 2007) ² (Bussmann, et al. 2010b) ³ (Bussmann, et al. 2010a) ⁴ (Ceuterick, et al. 2011) ⁵ (Jang, et al. 2000) ⁶ (Krigstein and Cererbaum 1995) ⁷ (Speisky and Casselst 1994)
Pepo de palta (seed of the avocado)	<i>Persea americana</i>	Diarrhea ^{1,2,3,6} Cough ² kidney stones ² radioprotective ⁵ antimicrobial ⁴ - gonorrhea, staph, typhus, bacillium, E. coli		¹ (Bussmann, et al. 2010a) ² (Bussmann, et al. 2010b) ³ (Ceuterick, et al. 2011) ⁴ (Idris, et al. 2009) ⁵ (Kulkarni, et al. 2010) ⁶ (Luziatelli, et al. 2010)
Eucalyptus	<i>Myrtaceae; Eucalyptus kitsoniana</i>	Diarrhea ⁶ stomach ache ⁶ fever ^{5,6,7} cold ⁵ sore throat ⁵ congestion ⁵ bronchitis ³	asthma ⁷ rheumatism ^{1,4} bone pain ^{1,4} analgesic ^{1,7} asthma ^{1,7} bronchitis ^{1,7} decongestant ^{1,7}	¹ (Bussmann, et al. 2007) ² (Bussmann, et al. 2009) part II ³ (Bussmann, et al. 2010a) ⁴ (Bussmann and Glenn 2011) ⁵ (Ceuterick, et al. 2011) ⁶ (Luziatelli, et al. 2010) ⁷ (Rehecho, et al. 2011)

Table 33 continued

Local Name	Scientific Name	Clinical Uses		References (matched to row)
Llantén	<i>Plantago major</i>	ovary inflammation ⁵ stomach ache ^{4,5} anti-inflammatory ^{1,2,4,6} arthritis ³ twists ³	pain ³ hematomas ⁶ disinfectant ⁶	¹ (Bussmann, et al. 2007) ² (Bussmann, et al. 2009) part II ³ (Bussmann and Glenn 2011) ⁴ (Ceuterick, et al. 2011) ⁵ (Luziatelli, et al. 2010) ⁶ (Rehecho, et al. 2011)
Chicoria	<i>Paramo chicory</i>	Detox ¹		¹ (Ceuterick, et al. 2011)
Suelda con Suelda	<i>Phthirusa stelis</i>	Fractures ^{1,2} twists ^{1,2} bone rupture ^{1,2}	fusion of broken ³ bones ³	¹ (Bussmann, et al. 2009) part II ² (Bussmann and Glenn 2011) ³ (Rehecho, et al. 2011)
Achiote (lipstick tree)	<i>Bixa orellana</i>	eye infection ⁴ burns ³ prostate ³ antibacterial ¹ inflammation of kidney ¹ prostate ¹	bronchitis ¹ hemorrhages ¹ pulmonary issues ¹ urinary tract infection ¹ food coloring ¹	¹ (Bussmann, et al. 2009) part II ² (Bussmann, et al. 2010a) ³ (Ceuterick, et al. 2011) ⁴ (Luziatelli, et al. 2010)
Balsa	<i>Ochroma pyramidale</i>	E. coli ¹		¹ (Bussmann, et al. 2010a)
Ala muricielago (bat wing passion flower)	<i>Passiflora coriacea</i>	Hypertension ¹ military tested for paralysis ²		¹ (Ceuterick, et al. 2011) ² (Taylor and John 1962)
Ortiga	<i>Urticaceae urtica</i>	Detox ⁴ blood purification ² inflammation ² rheumatism ³ bone pain ³ mal aire ¹ (bad air)	prostate ¹ getting rid of bad luck ¹ calm children ¹ vaginal cleansing ¹ snake bite ⁵	¹ (Bussmann, et al. 2007) ² (Bussmann, et al. 2010a) ³ (Bussmann and Glenn 2011) ⁴ (Ceuterick, et al. 2011) ⁵ (Molander, et al. 2012)
Paico	<i>Chenopodium ambrosoides</i>	Vermifuge ⁶ for children Stomach ³ digestion ³ antidiarrheal ³ Antiparasite ^{1,2} Antimalarial ⁵ Mycosis ⁴		¹ (Bussmann, et al. 2010b) ² (Bussmann, et al. 2010a) ³ (Ceuterick, et al. 2011) ⁴ (Desmarchelier, et al. 1996) ⁵ (Kvist, et al. 2006) ⁶ (Sanz-Biset, et al. 2009)
Guarumo	<i>Urticaceae Cecropia</i>	snake bites ¹		¹ (Molander, et al. 2012)
Muña	<i>Minthostachys mollis</i>	Digestion ³ aphrodisiac ³ anthelmintic ³ treat diarrhea ^{2,4}	gastritis ^{2,4} astringent for babies ^{2,4} inflammation ¹	¹ (Bussmann, et al. 2010a) ² (Ceuterick, et al. 2011) ³ (Hammond, et al. 1998) ⁴ (Rehecho, et al. 2011)

Table 33 continued

Local Name	Scientific Name	Clinical Uses		References (matched to row)
		colics ^{2,4}		
Manzanilla	<i>Matricaria frigidum</i>	Nerves ^{1,2} , insomnia ^{1,2} , inflammation of wounds ^{1,2,3} , inflammation of vagina ^{1,2,4} , colic ^{1,2,4} , stomach ache ^{1,2}	bronchitis ^{1,2} , pain of love ^{1,2} , digestion ^{4,5} , antidepressan t ⁵ , analgesic ⁵	¹ (Bussmann, et al. 2007) ² (Bussmann, et al. 2010a) ³ (Bussmann, et al. 2010a) ⁴ (Ceuterick, et al. 2011) ⁵ (Rehecho, et al. 2011)

Table 34. Cases Utilizing Medicinal Plants as an Attraction

CS	Continent	Country	Name	Medicinal Garden
9	South America	Peru	Posadas Amazonas	Yes
14	Africa	Madagascar	Anja Miray Association	Teach about the plants
17	South America	Bolivia	Chanalán Eco-lodge	Medicinal plants part of the attraction, but no garden
22	Oceania	Solomon Islands	Tetepare Ecotourism	Teach about the plants through forest walks
25	Central America	Honduras	Las Marias	Medicinal plants part of the attraction, but no garden
28	North America	Mexico	Community Tours Sian Ka'an	Yes

Table 35. Cases Where a Conservation Initiative Came First, and Ecotourism Developed to Fund the Conservation Projects

CS	Continent	Country	Name	Conservation First, Ecotourism After
1	Asia	Thailand	World Heritage Site	Yes
2	Asia	Indonesia	Pangandaran Tourism	Yes
4	South America	Chile	Mapu Lahual Network of Indigenous Parks (RML)	Yes
11	South America	Ecuador	Zabalo	Yes
13	Africa	Ghana	Wechiau Community Hippo Sanctuary	Yes
14	Africa	Madagascar	Anja Miray Association	Yes

Table 35 continued

CS	Continent	Country	Name	Conservation First, Ecotourism After
15	Central America	Costa Rica	Foundation for Monte Alto Forest Reserve	Yes
16	South America	Perú	Rumbo Al Dorado	Yes
17	South America	Bolivia	Chanalán Eco-lodge	Yes
19	Africa	Madagascar	Velondriake Ecotourism	Yes
20	Africa	Ghana	Mesomagur Ecotourism	Yes
21	Oceania	Republic of Vanuatu	Nguna-Pele Marine and Land Protected Area Network	Yes
22	Oceania	Solomon Islands	Tetepare Ecotourism	Yes
23	Asia	Indonesia	Bunaken National Park	Yes
24	South America	Ecuador	ASARATY	Yes
26	Asia	Indonesia	Pemuteran Ecotourism	Yes
29	Asia	Nepal	Baghmara Community Forest User Group	Yes

FIGURES



Figure 1. Biodiversity Hotspots by Myers et al. 2000

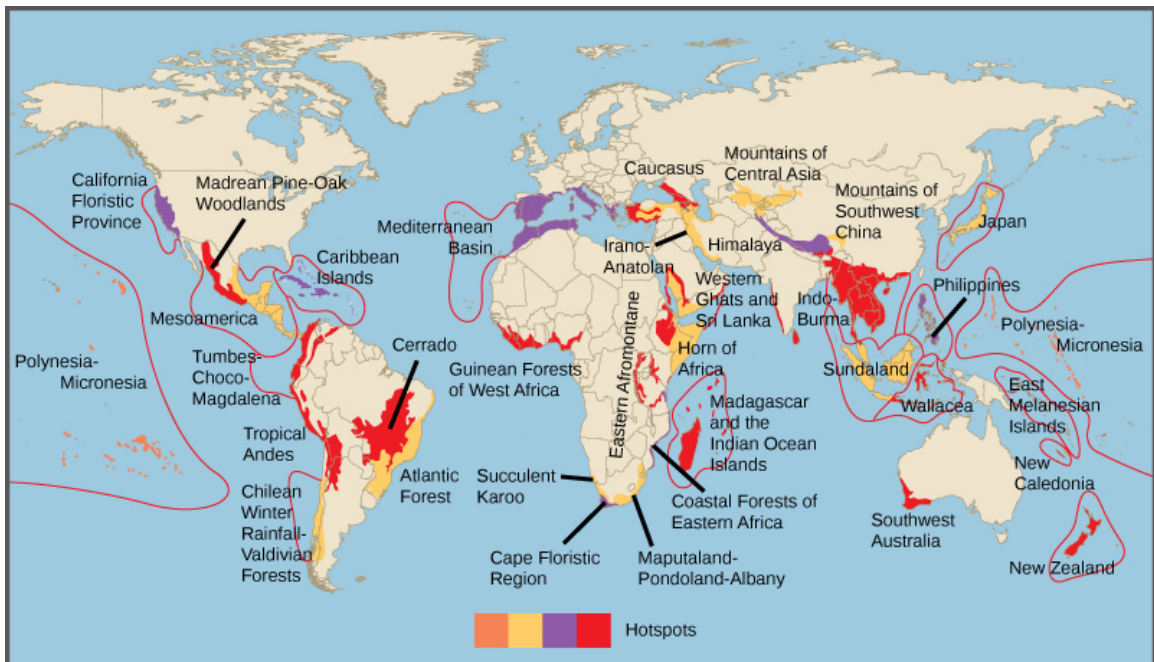


Figure 2. Biodiversity Hotspots by Conservation International 2013

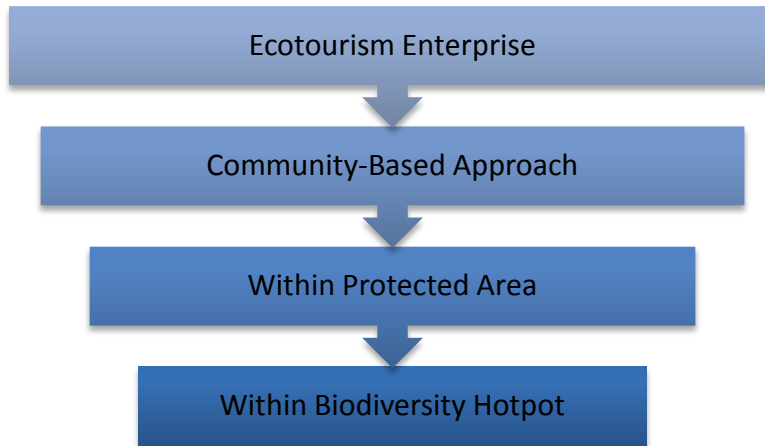


Figure 3. Process for Community-Based Ecotourism Case Study Selection

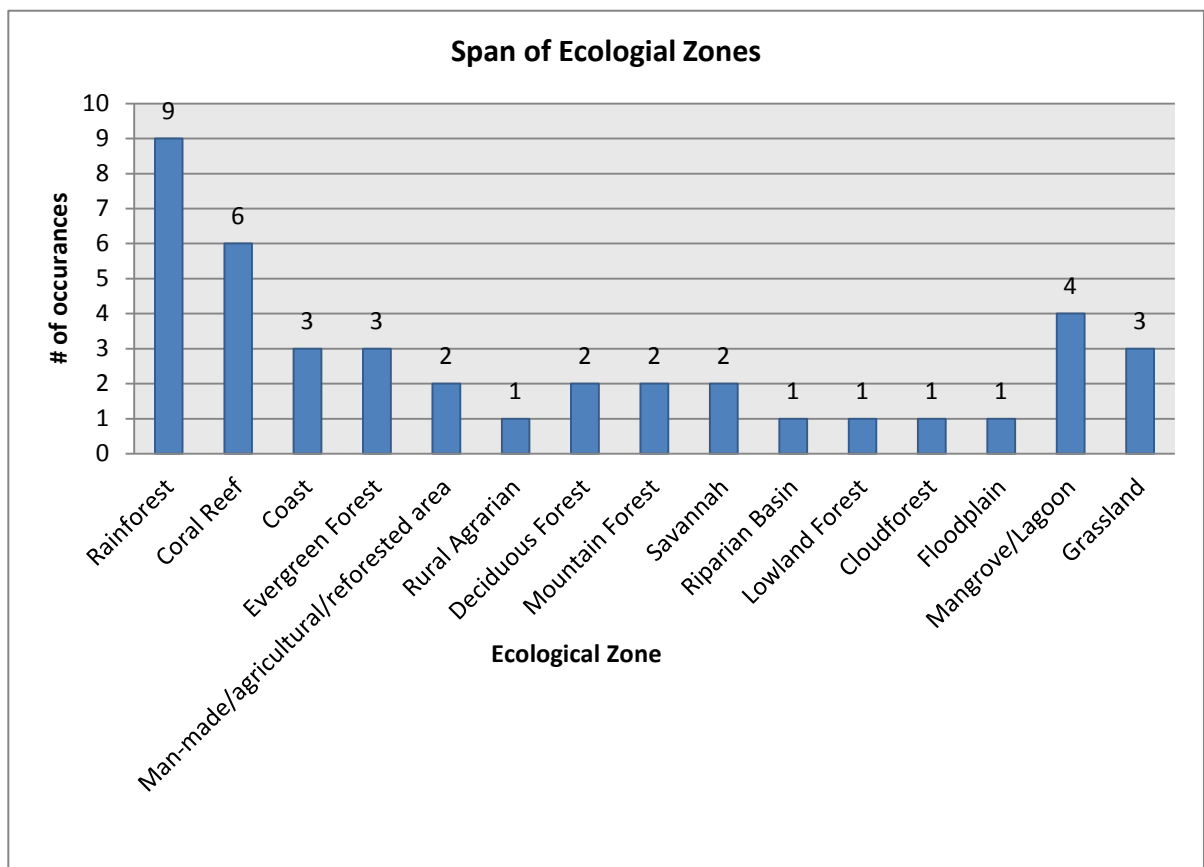


Figure 4. Span of Ecological Zones Represented in Meta-Analysis Sample Population, n = 41. Number of representations exceeds 30 because some enterprises represented multiple ecological zones

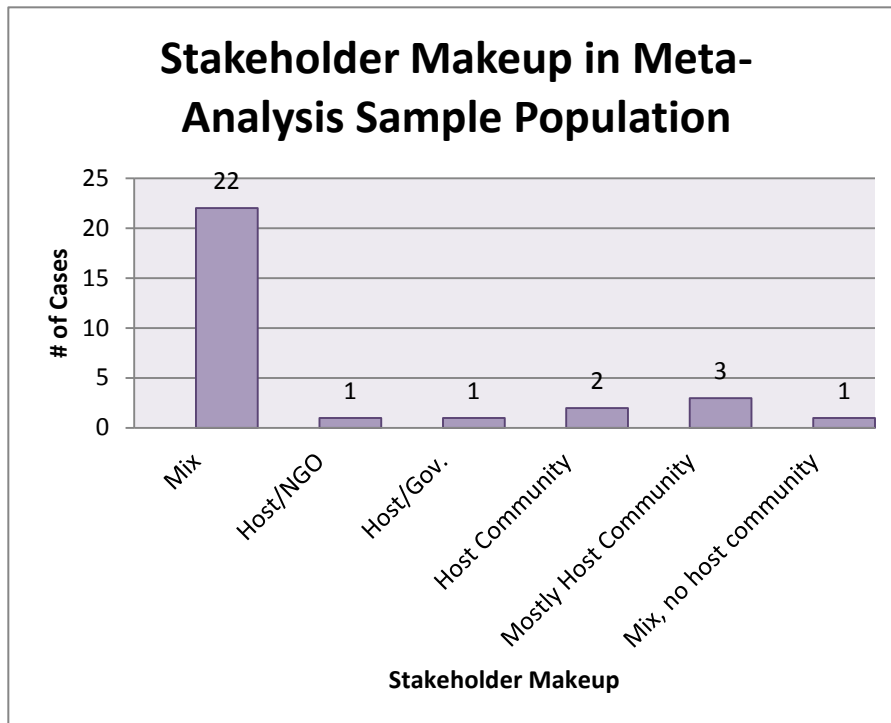


Figure 5. Stakeholder Makeup in Meta-Analysis Sample Population, n = 30

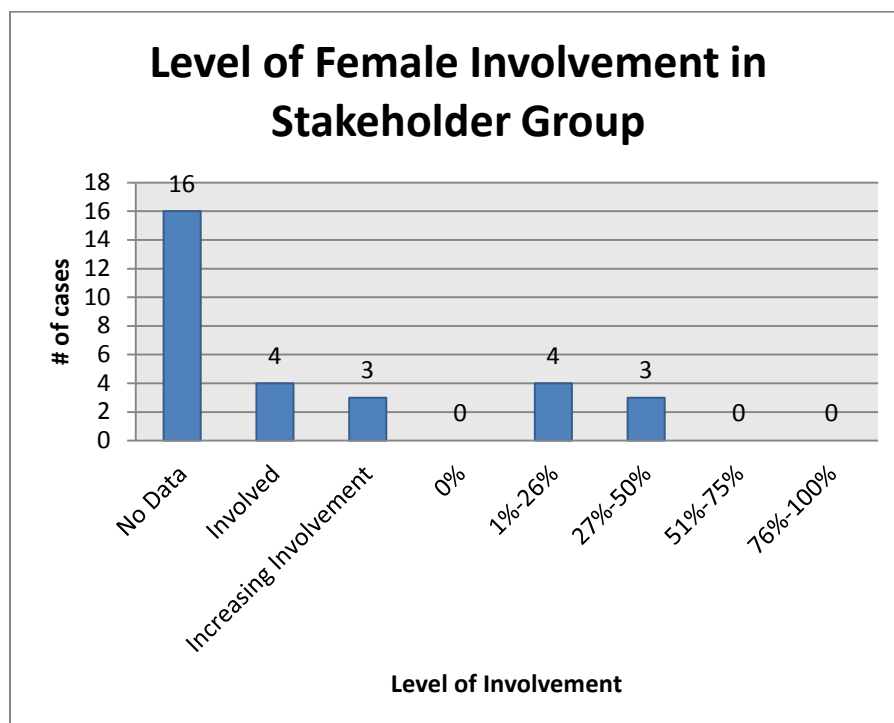


Figure 6. Level of Involvement by Females in Stakeholder Group, n = 30

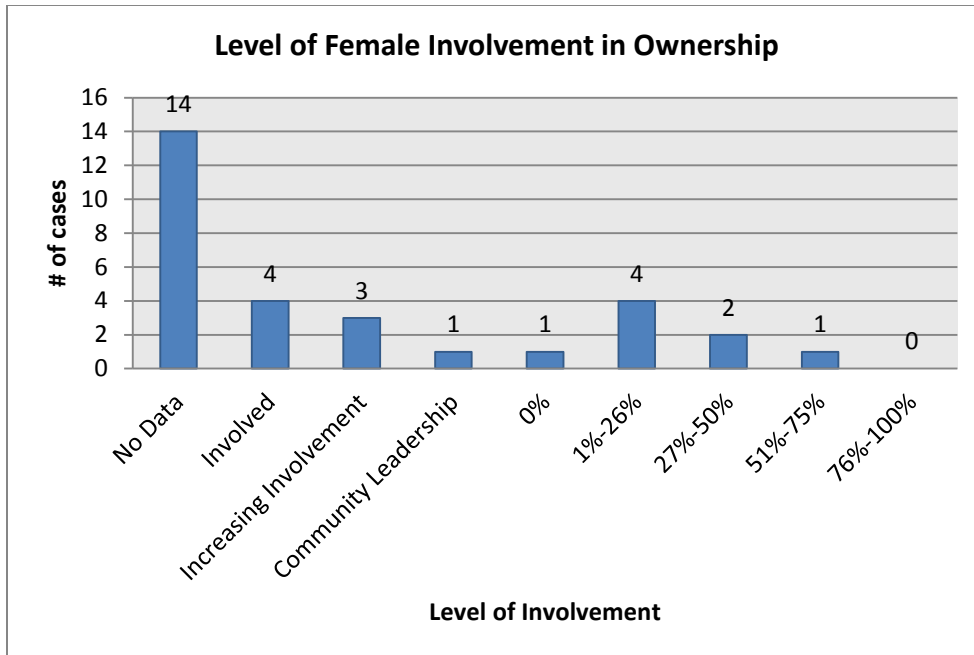


Figure 7. Level of Female Involvement in Ownership, n = 30

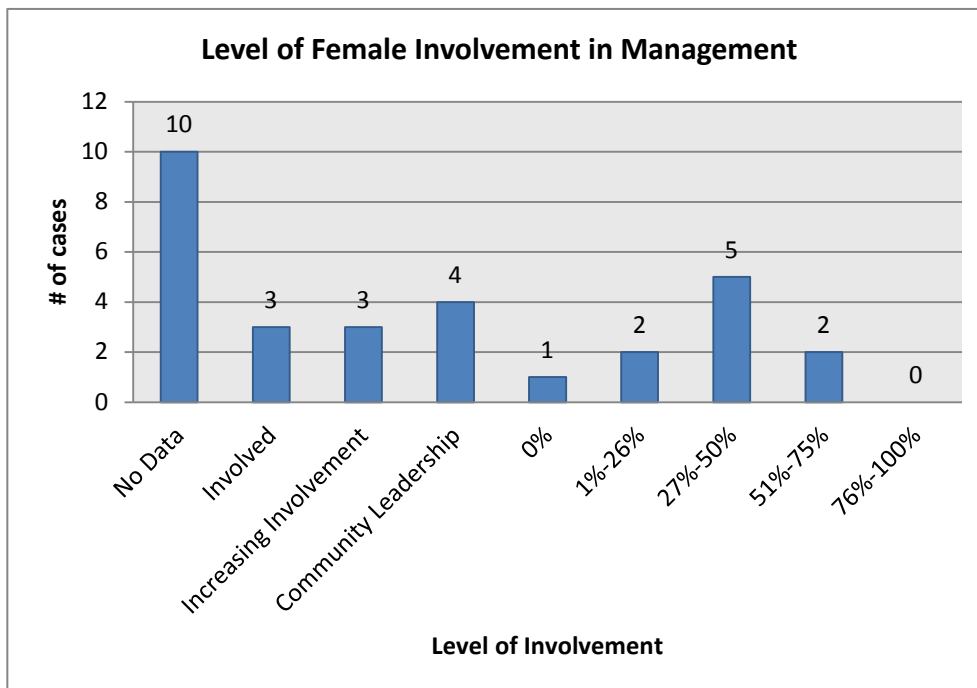


Figure 8. Level of Female Involvement in Management, n = 30

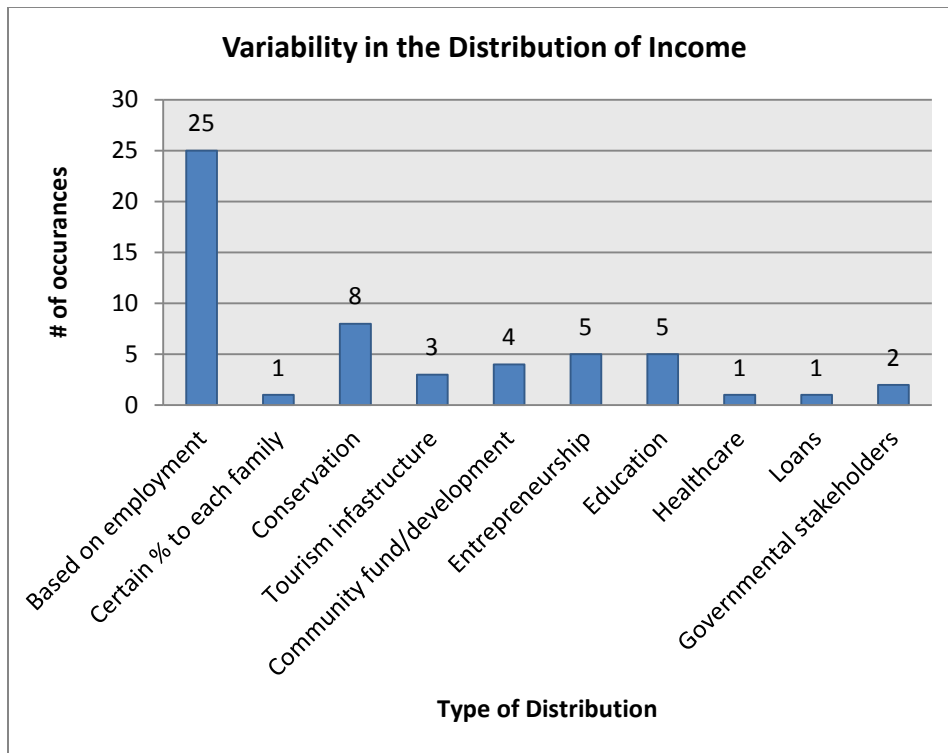


Figure 9. Variability in the Distribution of Income, n = 55. Number of types of distribution exceeds 30 because some types occurred in more than one case study

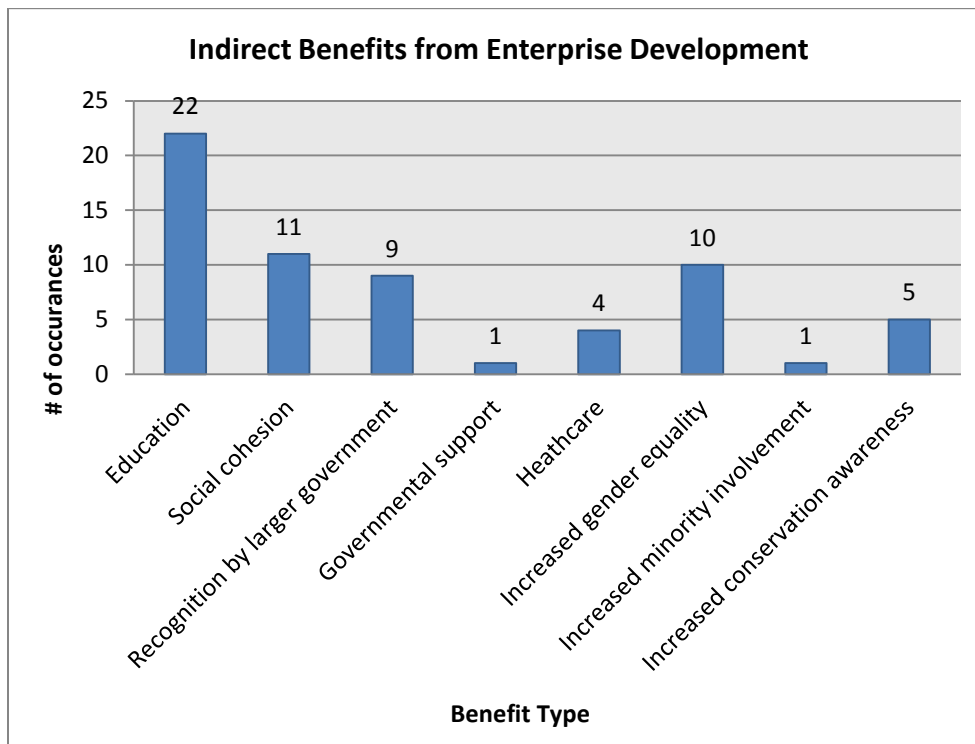


Figure 10. Indirect Benefits from Enterprise Development, n = 63. Number of occurrences exceeds 30 because some cases listed multiple benefits

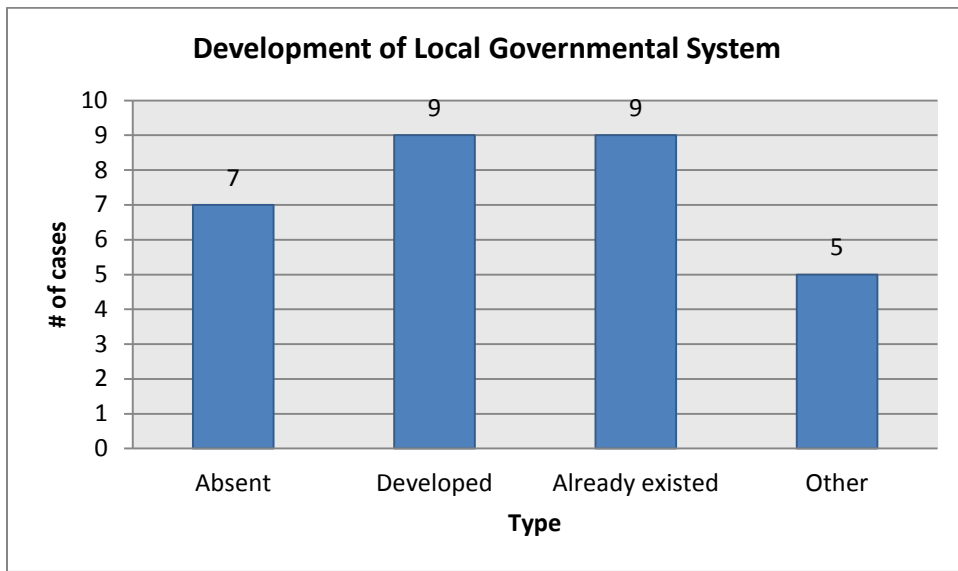


Figure 11. Development of Local Governmental System, n = 30

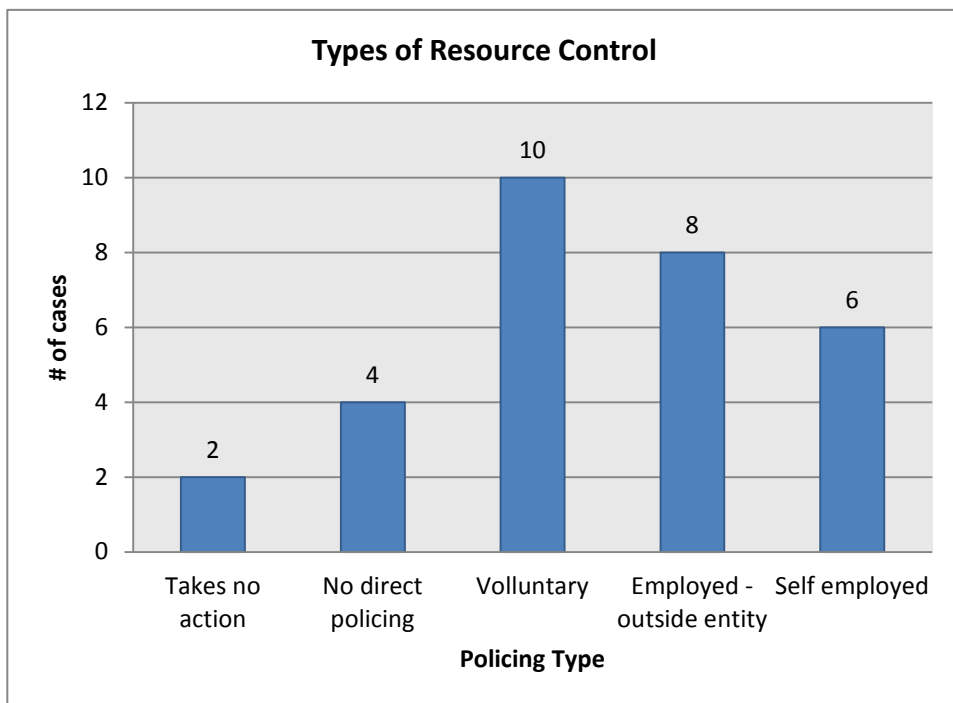


Figure 12. Types of Resource Control Present in Case Studies, n = 30

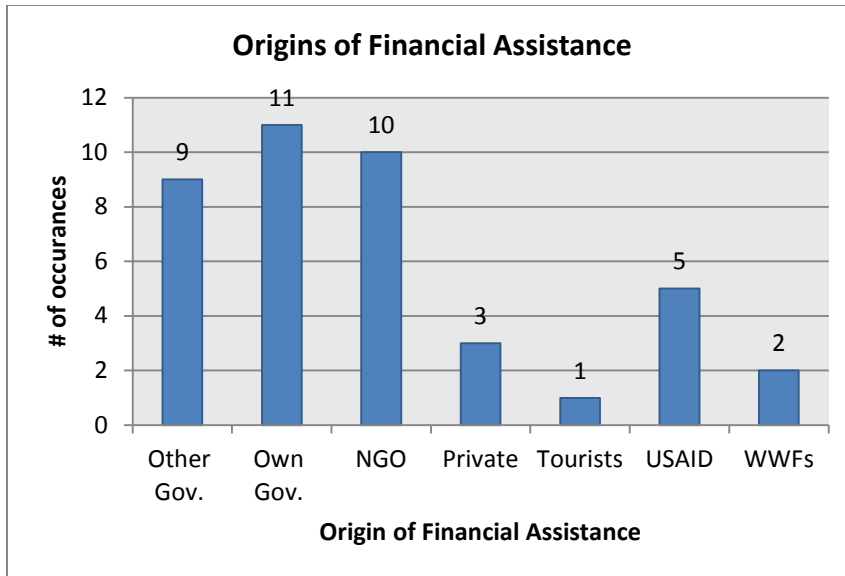


Figure 13. Origins of Financial Assistance, n = 41. Number of occurrences exceeds 30 because some cases indicated financial assistance from more than one entity

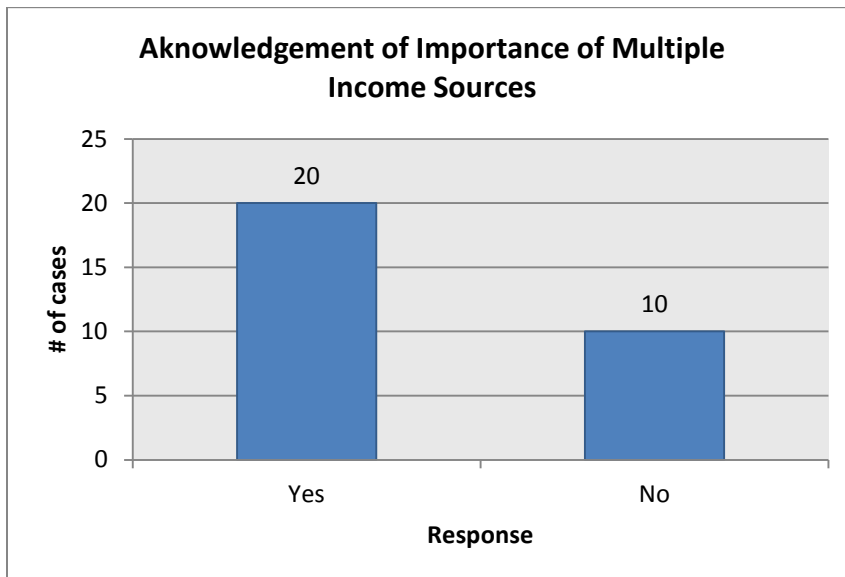


Figure 14. Acknowledgement of Importance of Multiple Income Sources, n = 30

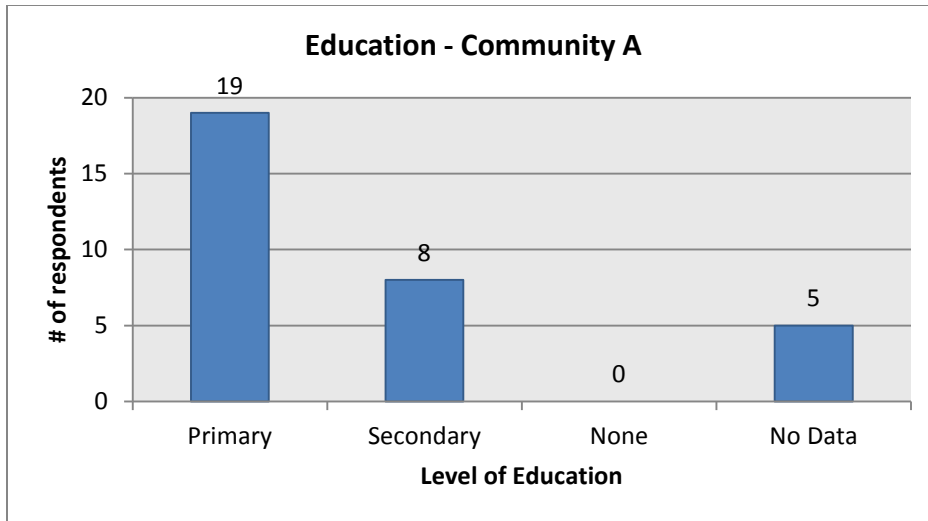


Figure 15. Education Levels in Community A, n = 32

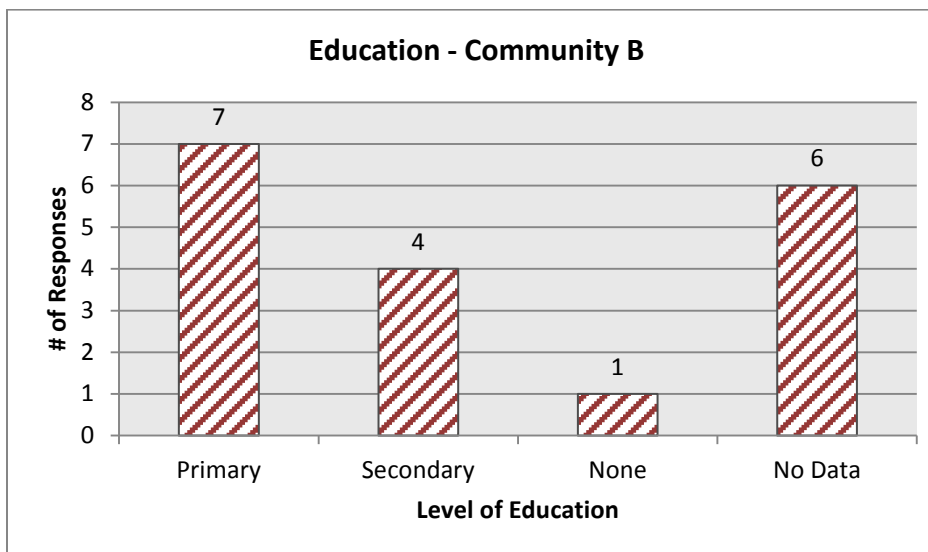


Figure 16. Education Levels in Community B, Peru, n = 18

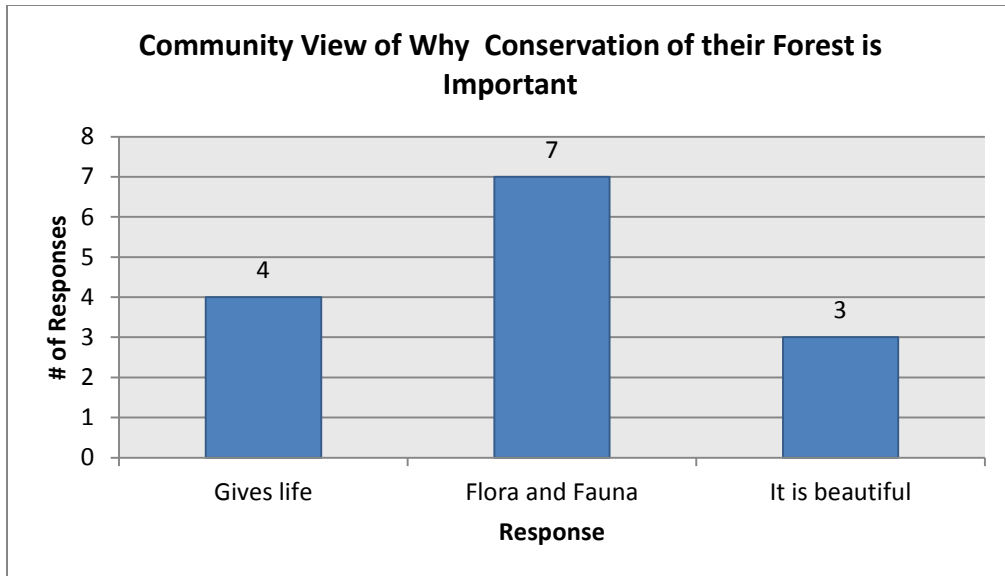


Figure 17. Community A's View of Conservation Importance, n = 14

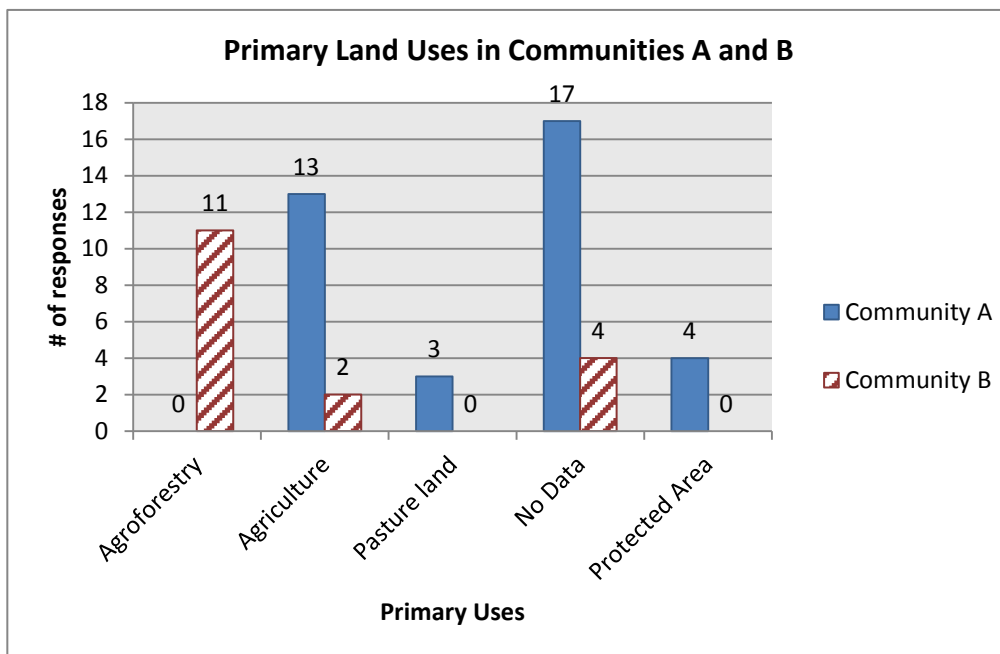


Figure 18. Primary Uses of Land in Communities A and B, Peru n=54. Number exceeds 51 because some responses indicated more than one primary use

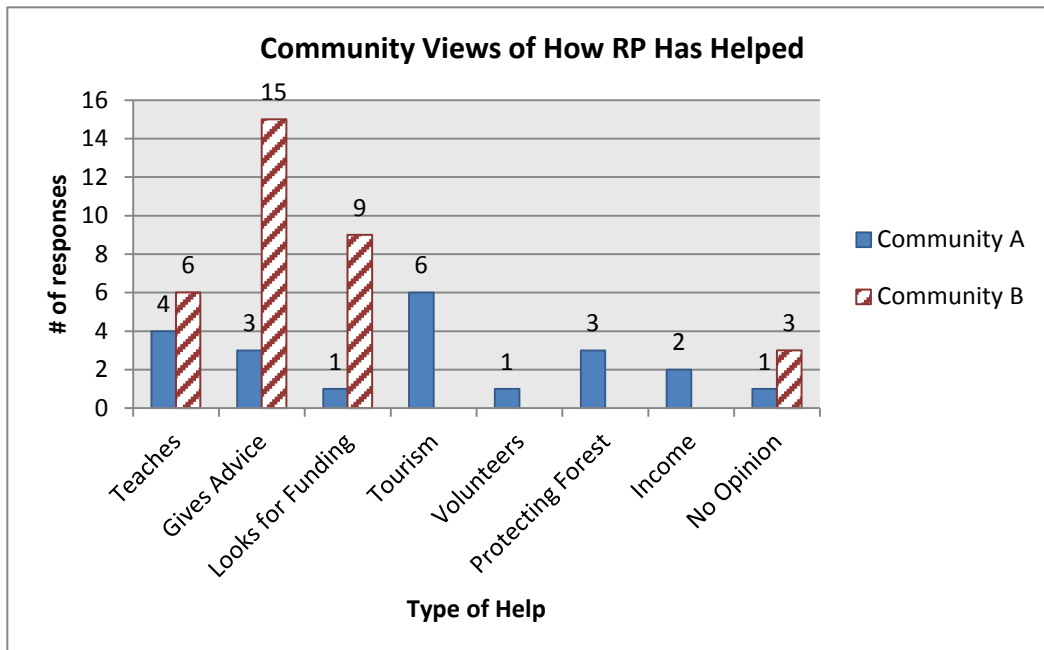


Figure 19. Community Views of How RP has Helped, n=54. Number exceeds 51 because some responses indicated more than one type of help

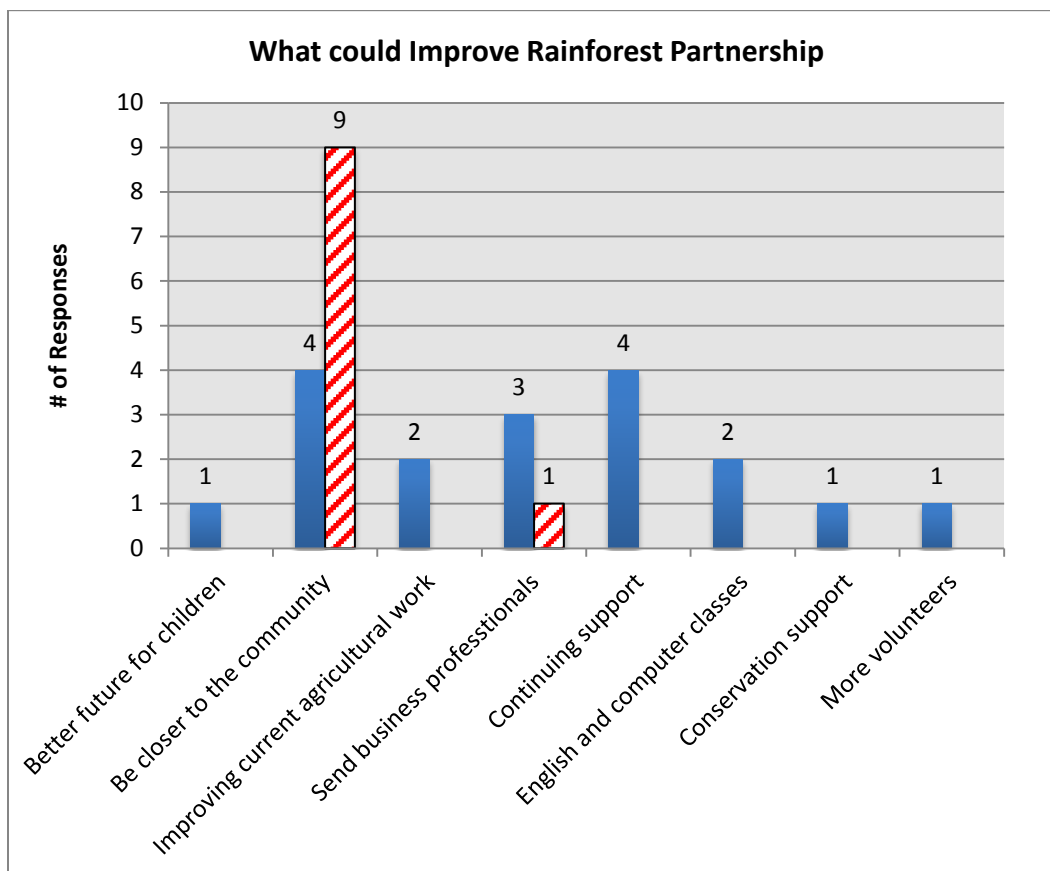


Figure 20. Host Community Views of What Could Improve RP, n(A) = 18; n(B) = 10

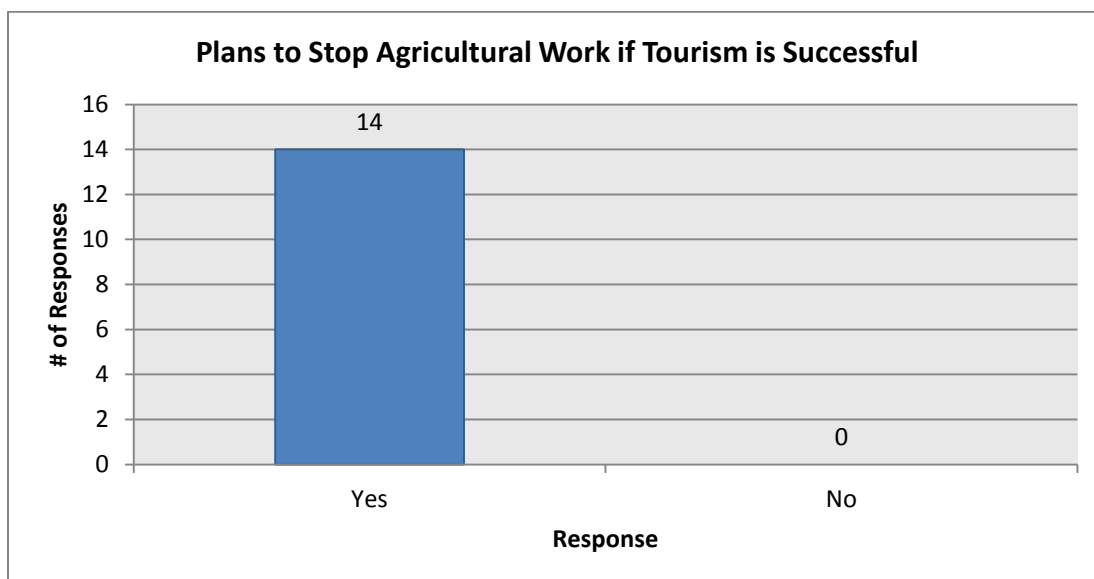


Figure 21. Plans to Stop Agricultural Work – Community A, n=14

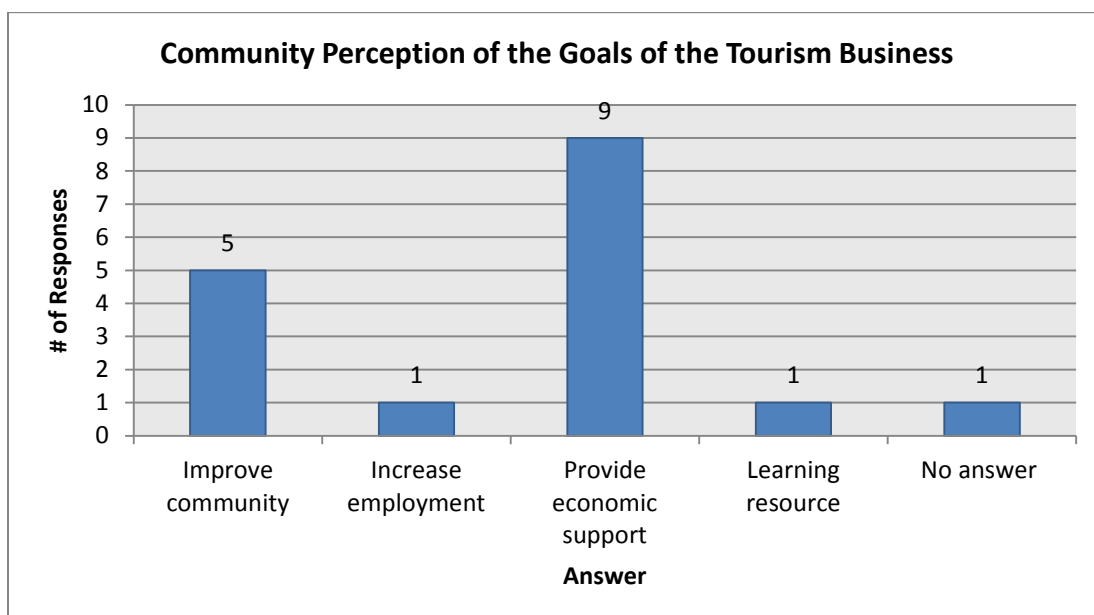


Figure 22. Desired Outcome of Ecotourism – Community A, n=17. Number exceeds 14 because some respondents indicated more than one desired outcome

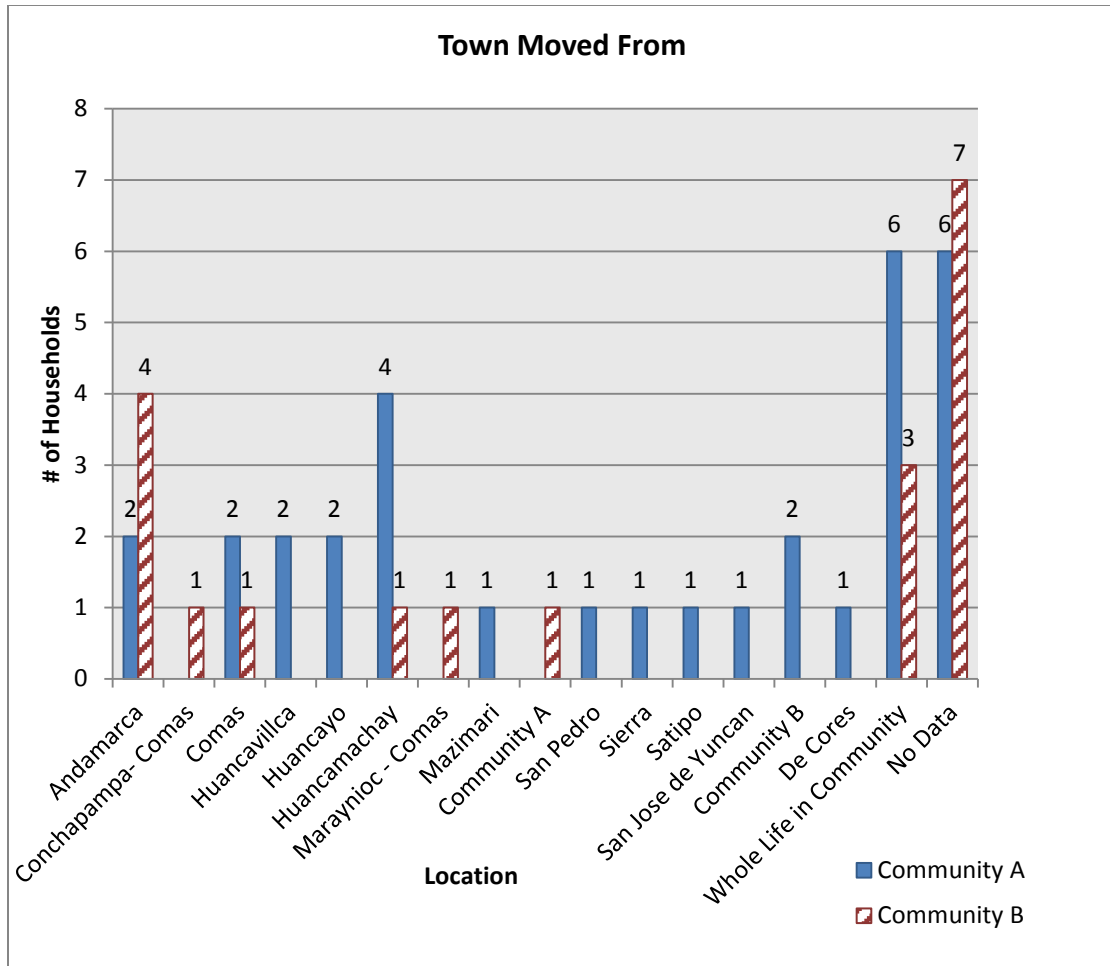


Figure 23. Spatial Representation of Residents in Communities A and B, $n(A)=32$; $n(B) = 19$

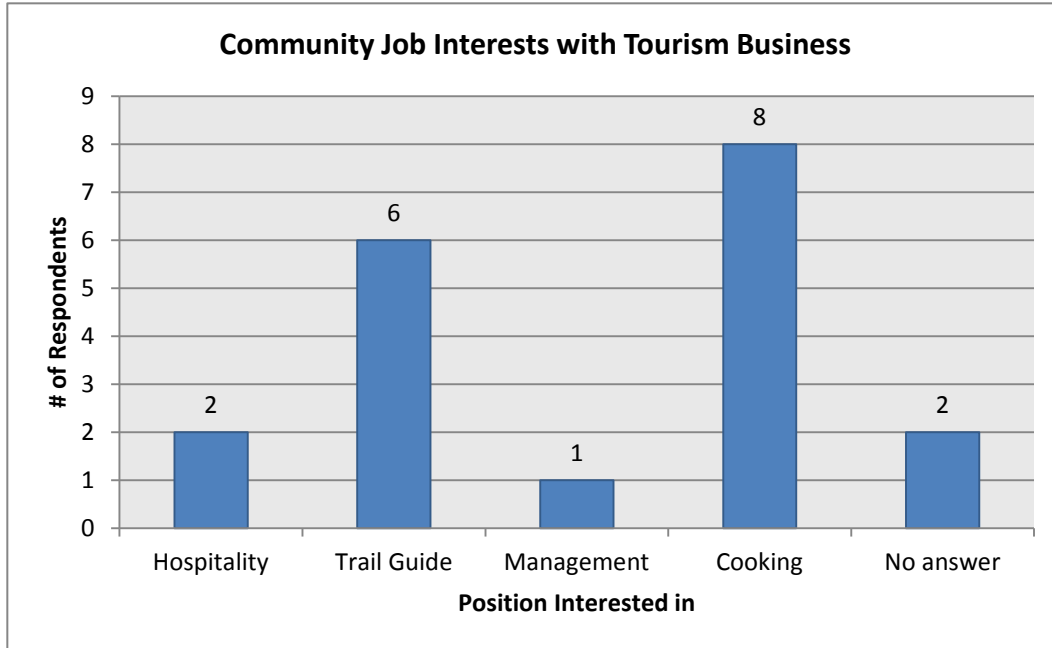


Figure 24. Employment Interest in Community A, n=19. Number exceeds 14 because some respondents indicated more than one job interest

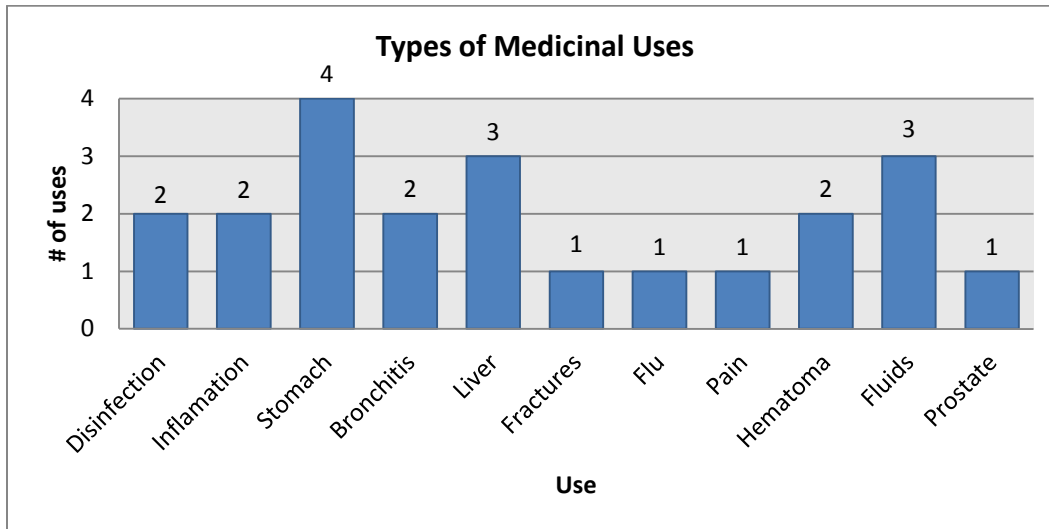


Figure 25. Types of Medicinal Uses of Plants in Communities A and B, n = 22

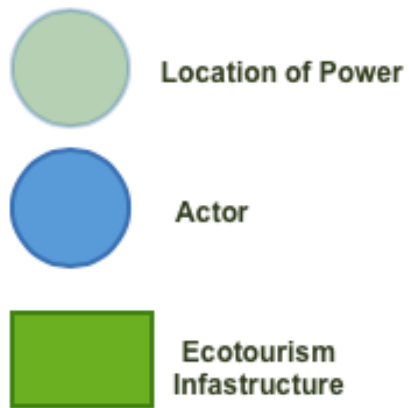


Figure 26. Key for Logical Model

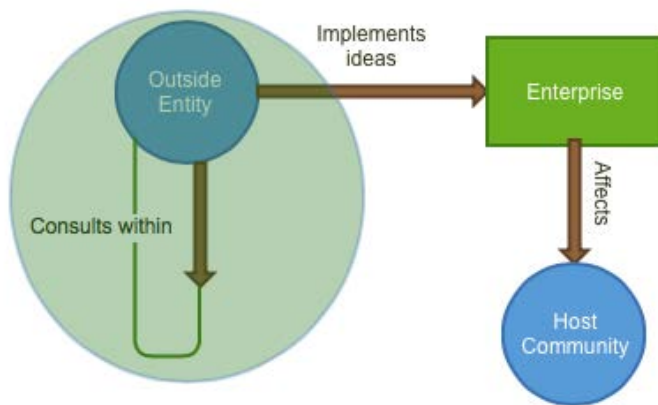


Figure 27. Relations of Power in Type 1 Ownership/Management

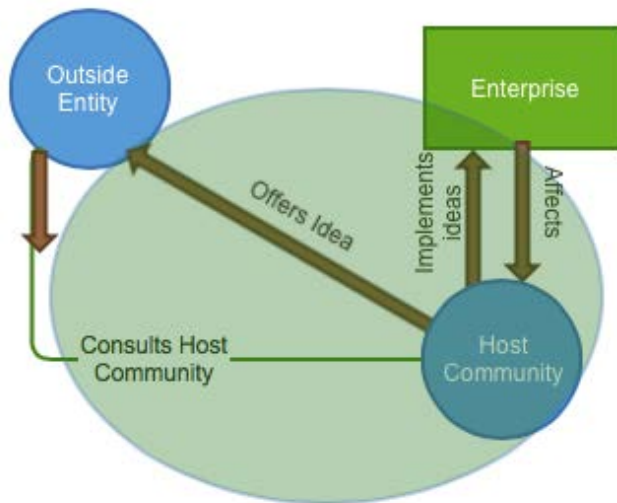


Figure 28. Relations of Power in Type 2 Ownership/Management

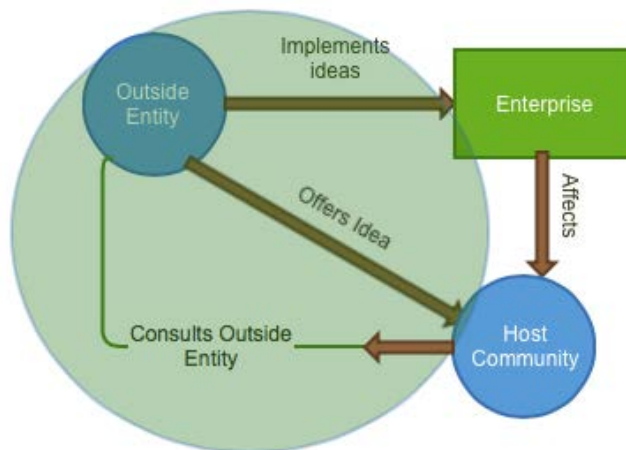


Figure 29. Relations of Power in Type 3 Ownership/Management

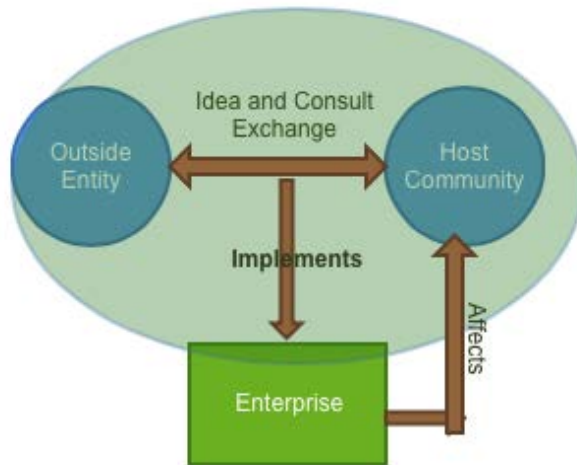


Figure 30. Relations of Power in Type 4 Ownership/Management

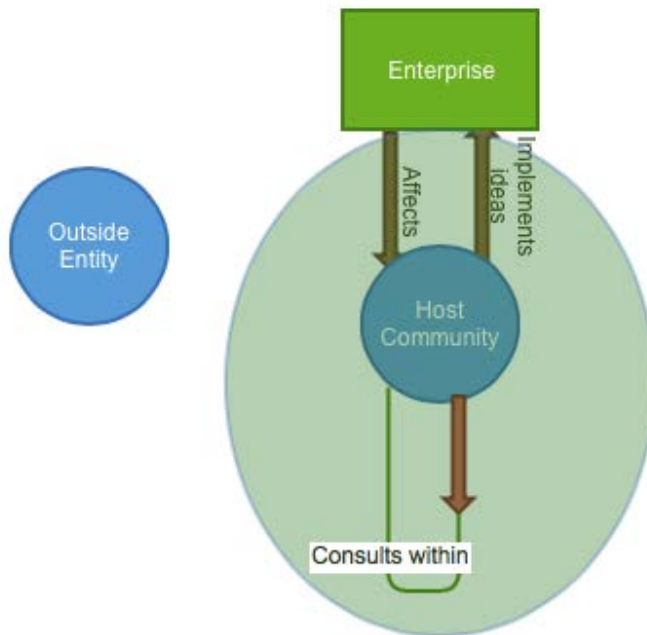


Figure 31. Relations of Power in Type 5 Ownership/Management

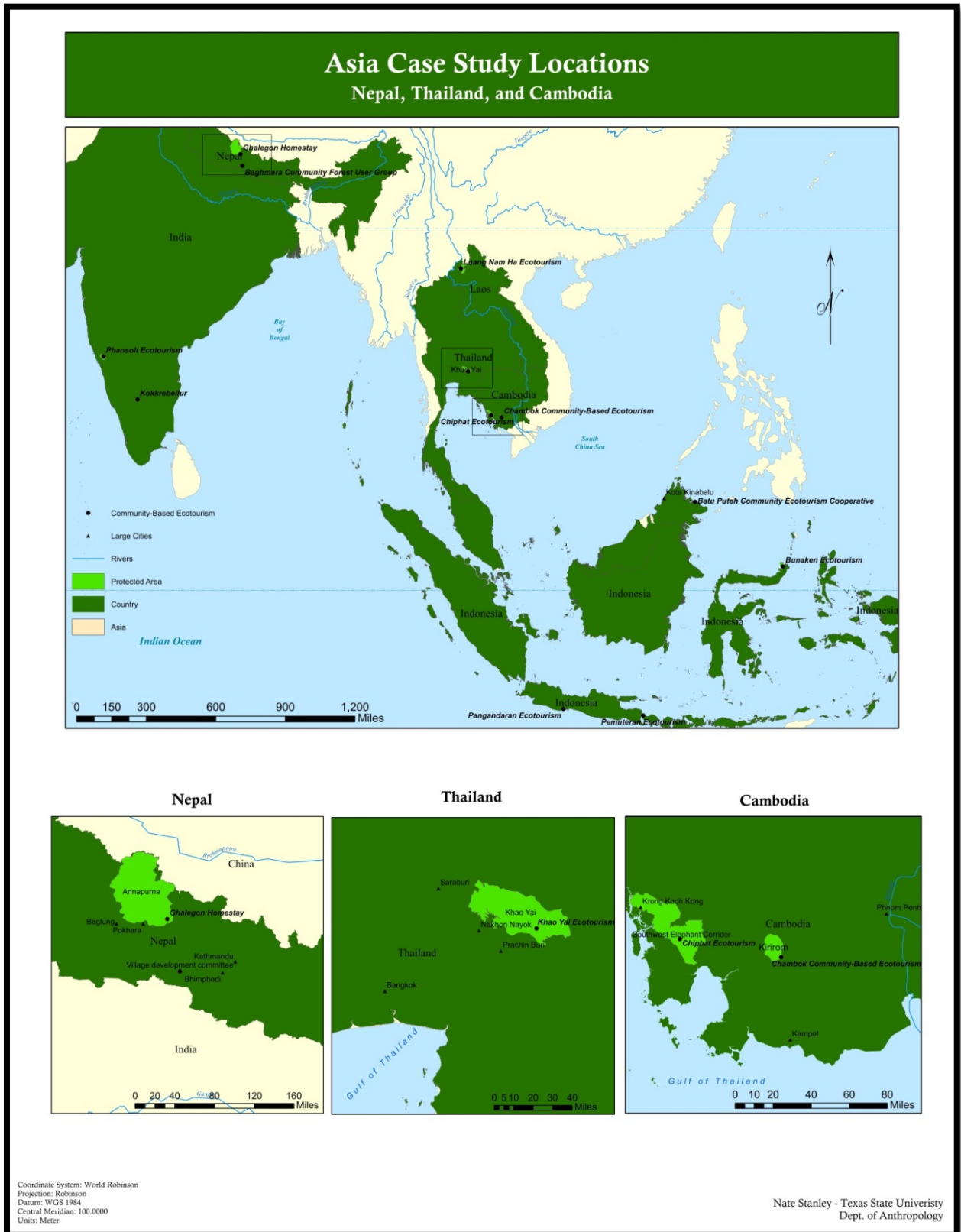


Figure 32. Map of Case Study Locations in Nepal, Thailand, and Cambodia (ESRI 2014; GADM 2014; PP 2014; TXSTGeo 2014)

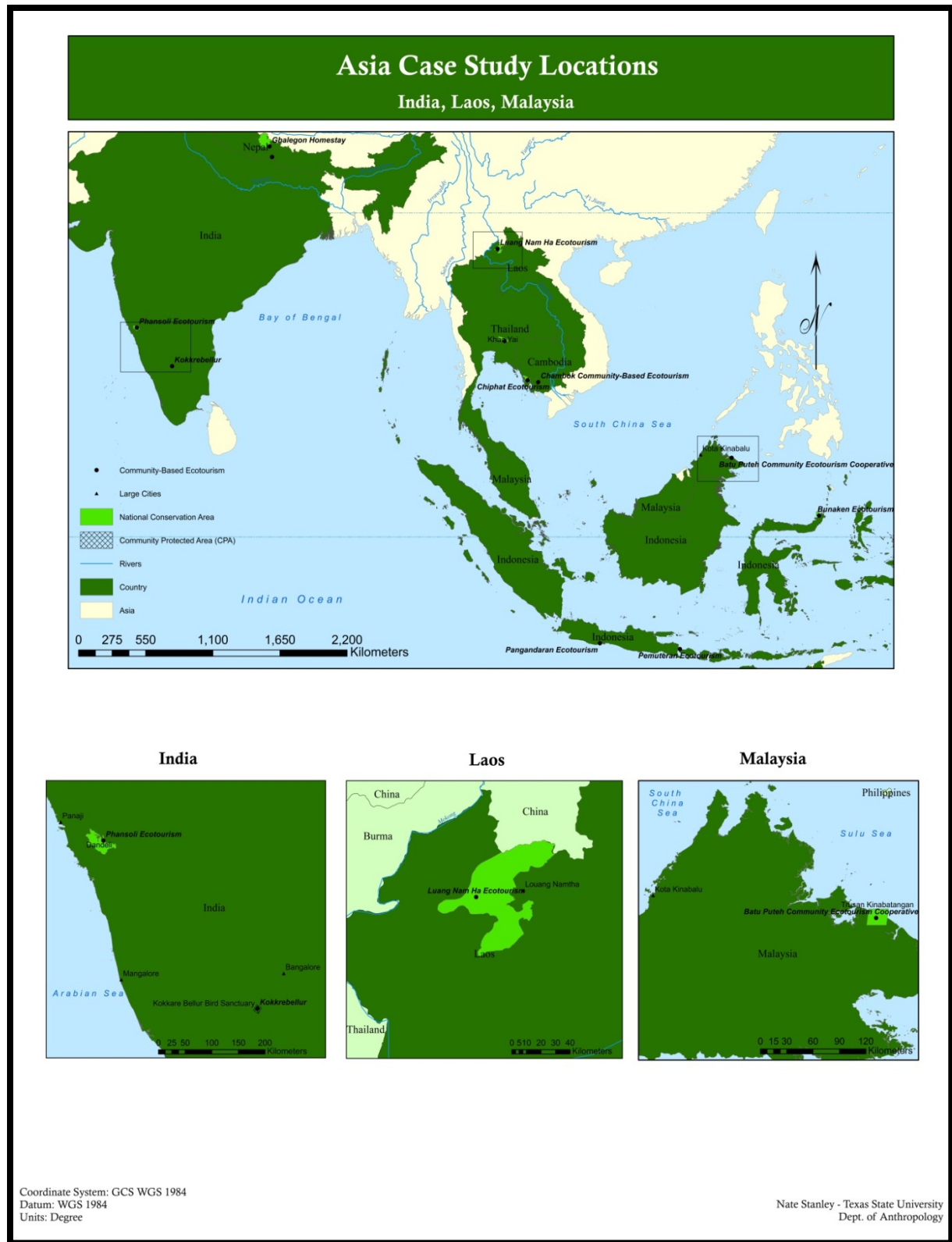


Figure 33. Map of Case Study Locations in India, Laos, and Malaysia (ESRI 2014; GADM 2014; PP 2014; TXSTGeo 2014)



Figure 34. Map of Case Study Locations in Indonesia (ESRI 2014; GADM 2014; PP 2014; TXSTGeo 2014)

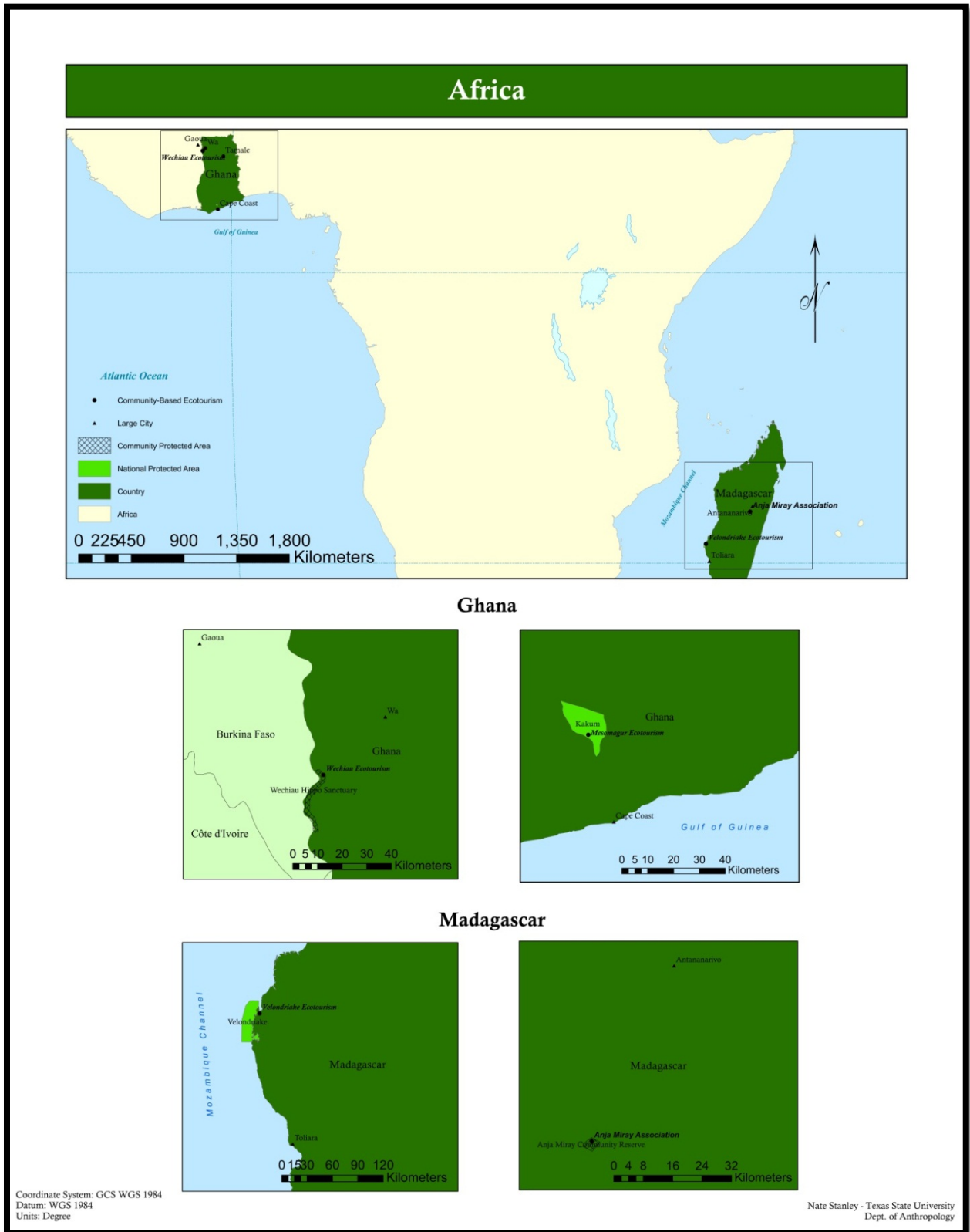


Figure 35. Map of Case Study Locations in Ghana and Madagascar (ESRI 2014; GADM 2014; PP 2014; TXSTGeo 2014)

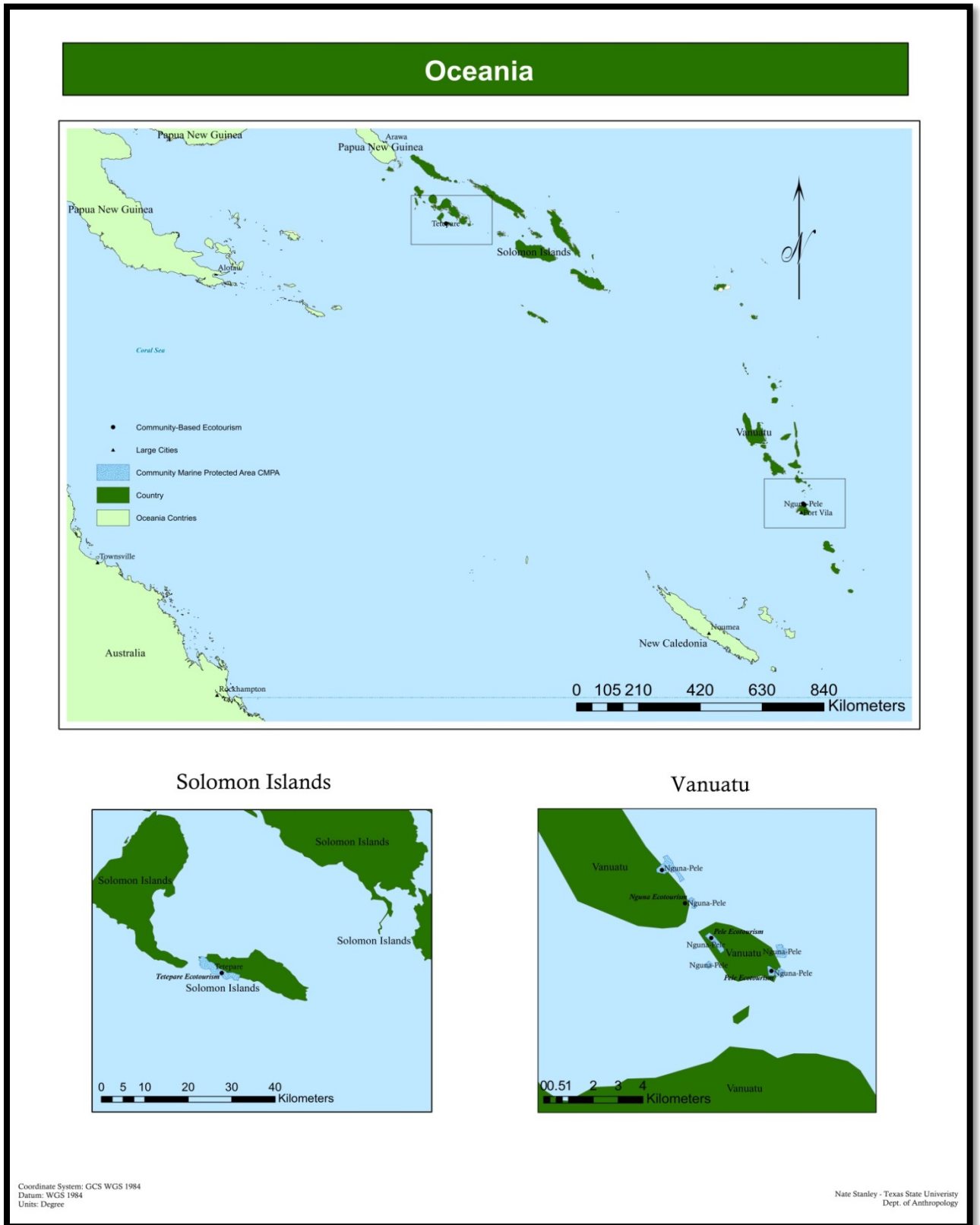


Figure 36. Map of Case Study Locations in The Solomon Islands and Republic of Vanuatu (ESRI 2014; GADM 2014; PP 2014; TXSTGeo 2014)

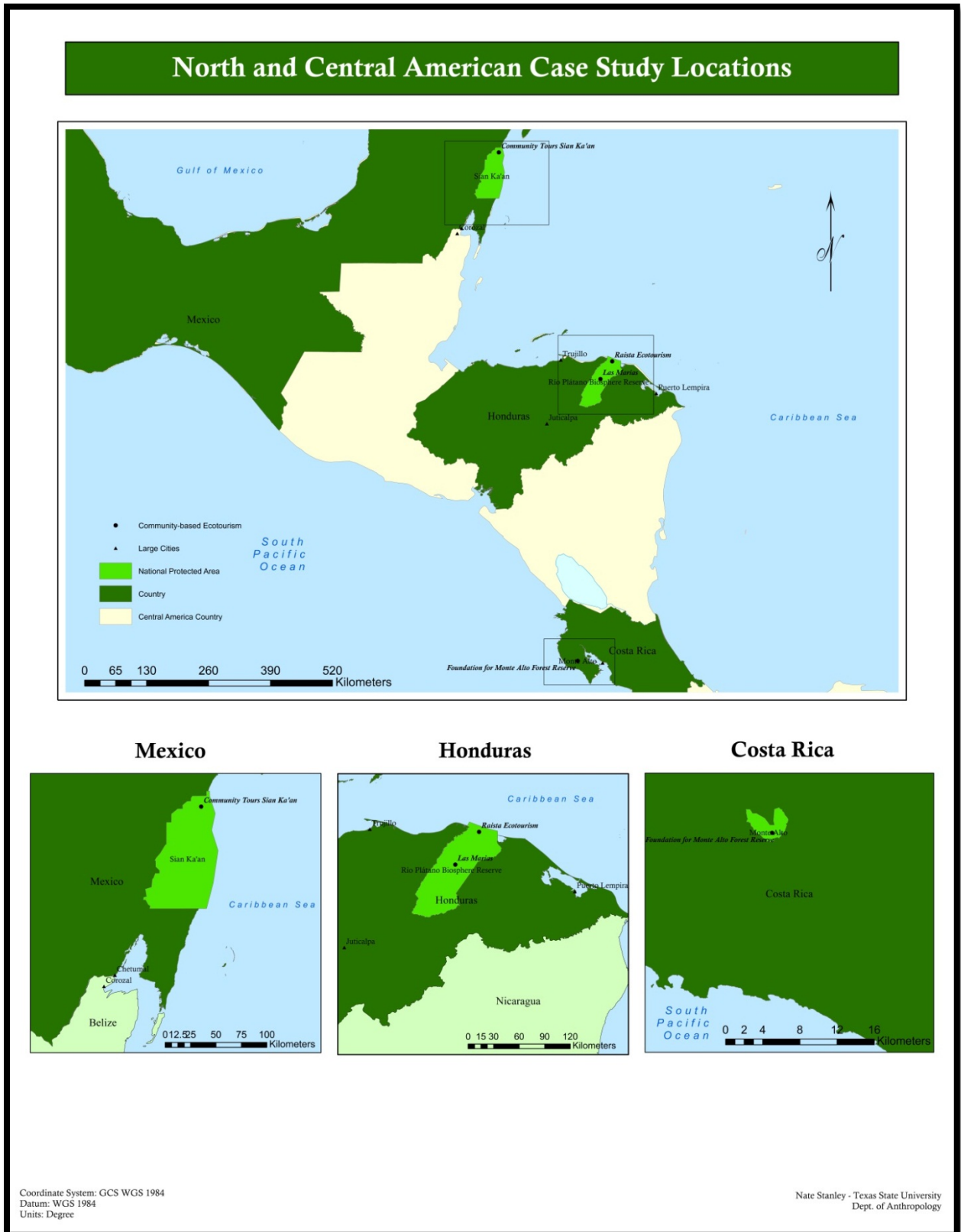


Figure 37. Map of Case Study Locations in North and Central America (ESRI 2014; GADM 2014; PP 2014; TXSTGeo 2014)

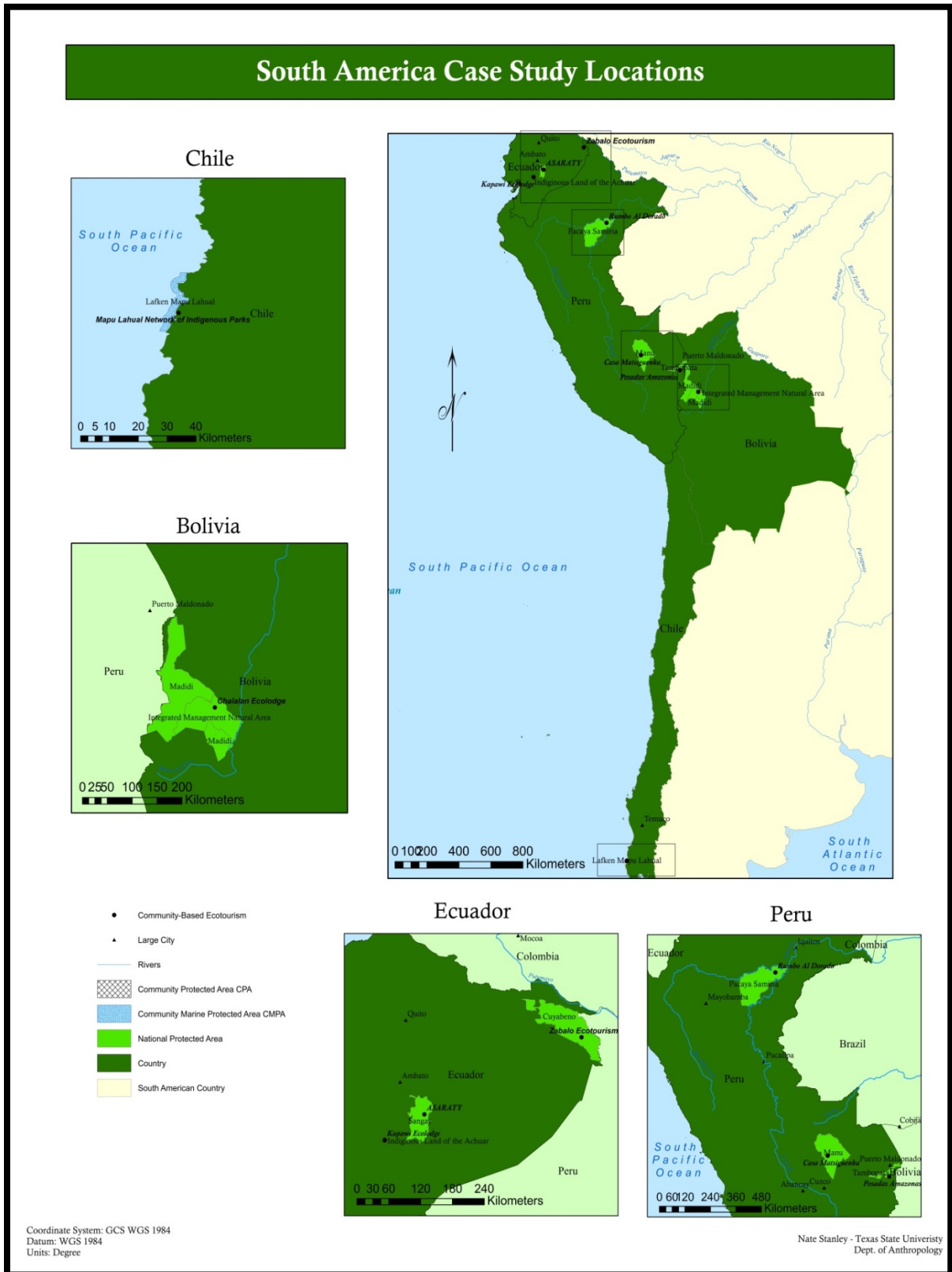


Figure 38. Map of Case Study Locations in South America (ESRI 2014; GADM 2014; PP 2014; TXSTGeo 2014)

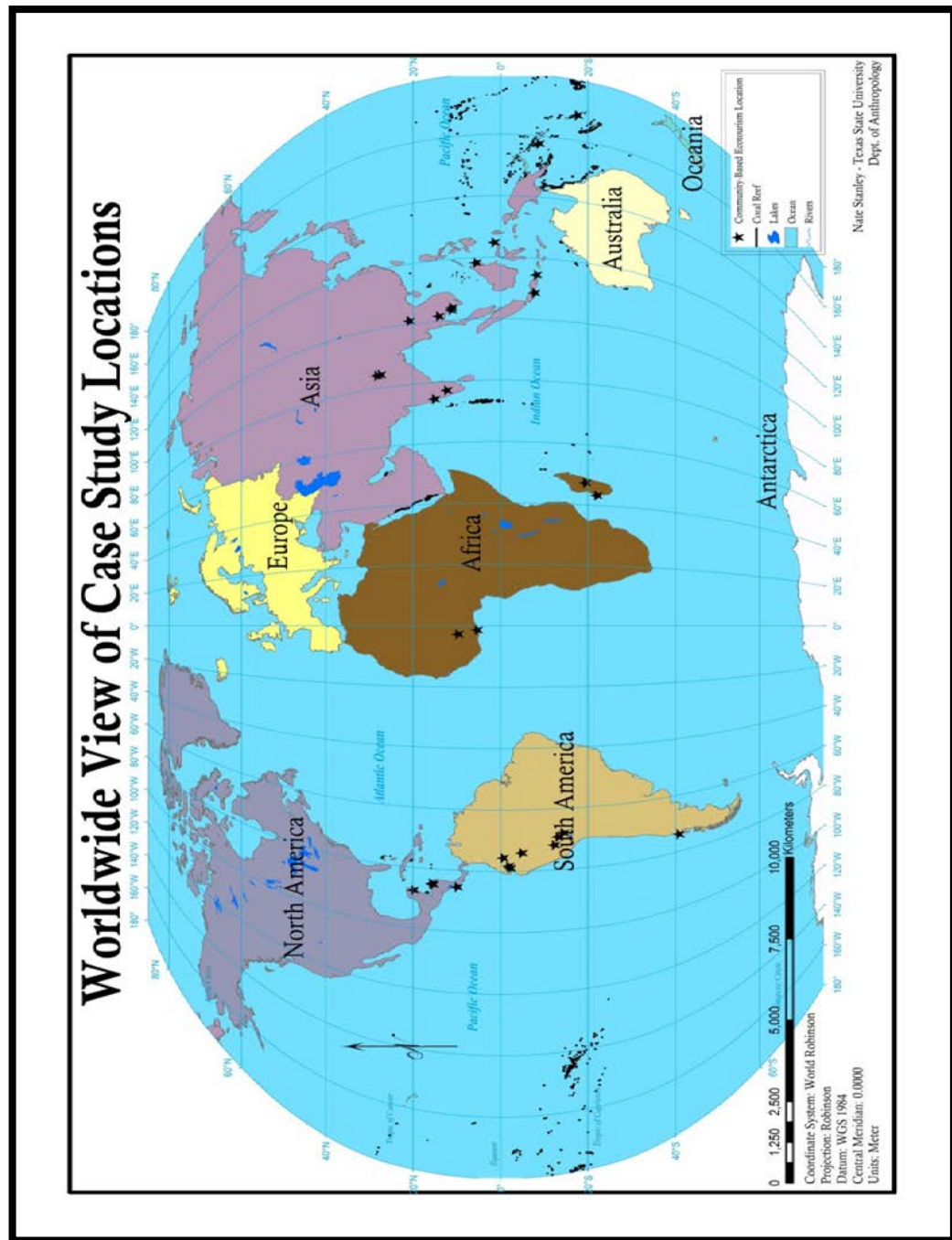


Figure 39. Worldwide View of Case Study Locations (ESRI 2014; NED 2014; PP 2014; TXSTGeo 2014)

APPENDIX SECTION

APPENDIX A

Case Study Questionnaire

Date: / /

Thank you for your participation in this project. Your answers will be part of a thesis project for the Department of Anthropology at Texas State University.

Please make your answers as descriptive as possible and include percentages when applicable. There is no space limitation. If you find it would be easier to send annual reports, please feel free to do so. All information you provide will not be published without your consent.
(ns1208@txstate.edu)

Enterprise Name and Location:

Background Information

Answer

Is there a specific type of ecotourist this business seeks to attract?

(Examples: backpackers, birders, horticulturalists)

What is the protected area the business is located within?

Is it in a buffer zone?

What is the primary habitat?

What is the nearest large city (cities)?

Distance(s)?

Have there been any natural disasters? (Flood, tornado,

fire, earthquake)

Did it affect the business?

Has there been any social or political disruption that affected the business? (War, kidnappings, protests)

Key Factors

Who owns the business?

Examples: [include name(s)]

Local community

NGO

Private

Government

Other

Is it a combination?

Who manages the business?

Examples: (include name)

Local community

NGO

Private

Government

Other

Is it a combination?

Is there a stakeholder group?

Yes: _____

No: _____

Answer

Ranking

1 Only outside ownership

2 Outside management
consults community

3 Community w/outside
management advice

4 Community works directly
w/ outside management

5 Only community owned

1 Only outside management

2 Outside management
consults community

3 Community w/ outside
management advice

4 Community works directly
w/outside management

5 Only community managed

Are they composed of government, private businesses, non-profits, the host community, or a combination of those?

How often does (do) the stakeholder group(s) meet?

- 1 No stakeholder group exists
- 2 Group used to exist
- 3 Group exists, does not meet together
- 4 Group exists, meets once per year
- 5 Stakeholder group meets regularly, has effective action

How represented are females in the stakeholder group?

Please be as descriptive as possible

- 1 – no female representation
- 2 – 1%-26% female
- 3 – 26%-50% female
- 4 – 51%-75% female
- 5 – 76%-100%

How represented are females in management?

Please be as descriptive as possible

- 1 – no female representation

2 – 1%-25% female

3 – 26%-50% female

4 – 51%-75% female

5 – 76%- 100%

**How represented are
females in ownership?**

Please be as descriptive as possible

1 – no female
representation

2 – 1%-25% female

3 – 26%-50% female

4 – 51%-75% female

5 – 76%- 100%

**How is income
distributed?**

What percentage of profit
goes directly to the
community?

Or

How much profit does the community receive annually?

Has there been an increase in profit since the business began?

Yes: _____

No: _____

If yes, is it considered economically sustainable for the host community?

Yes: _____

No: _____

Is there a threshold (maximum or minimum) for the amount of income needed for the continuation of the business?

Are there any other income sources that the community has besides the lodge or hostel?

Please list them:

Ex. handicrafts, agriculture, taxi services (bus, boat, car, motor bike)

How dependent is the enterprise on these other income sources?

Has the community attained any indirect benefits from the business?

Please list them:

Ex. education incentive,
loan and finance assistance,
health programs, training
(hospitality, cleanliness,
management)

Did the host community
develop their own political
system as a result of this
business, or did one already
exist within the host
community?

Does the community take
action to police their
resources?

N – Takes no action

ND – No direct policing, only
if there are obvious
trespassers

V – Voluntarily reports
trespassing

EO – Employed as monitors
by outside agency (not
community)

SE – Employed as monitors as
result of their own
policing system

Have there have been
changes in resource control
since the creation of this

What kind of changes?

enterprise?

How legal is the community's claim to their resources?

Please describe their claims (culturally defined, government guarantees their claim, ect)

- 1 – All resources illegal
- 2 – Has claim to above ground resources, not subsurface resources (or vice versa)
- 3 – Verbally agreed that they own land (culturally defined)
- 4 – Has written claim to some resources
- 5 – Has written claim that constitutionally guarantees their ownership

Has migration into or out of the community occurred?

If migration into the community has occurred, have the migrants started businesses?

How effective have NGOs
been to this enterprise?

N – no involvement
IN – helped with in-kind
donation
FI – helped financially
IN-FI– helped financially
and with in-kind
donation
S – successfully integrated
the host community into
ownership and
management of business

Does the enterprise receive
financial or other assistance
from the municipal and/or
regional governments of its
own country, or from
governments of other
countries?

Where does governmental
assistance come from?

If there are any other factors unique to your enterprise, please include them below. Any and all information will support this Thesis project; there is no space limitation. Thank you for your time.

APPENDIX B

Characteristics of Enterprises – CS 1 Not Community-Based

Case Study #1 - Khao Yai National Park

This is not an example of an explicitly community-based enterprise since it is not completely owned and operated by local host populations. The host populations have the opportunity to participate, and some have created businesses that are supported by the ecotourism business, but it is not explicitly community-based and more of a project headed by the government of Thailand. The enterprise is economically sustainable, but it lacks in social and especially environmental sustainability. Although there are multiple stakeholders involved in protecting the natural environment of the area, there is still environmental degradation happening as a result of poor managerial infrastructure.

Incentives for education are offered to the visitors of the ecotourism sites in the forms of the visitors center, informative signs in a few select areas, and information given by the guides during expeditions (Mahdayani 2011). Mainly, however, the visitors are responsible for how much education they receive, as they must seek it out at the visitors center (Mahdayani 2011).

Khao Yai National Park is a major income source for the national park circuit in Thailand (Buckley 2001). Relations with the park officials and some of the over 50,000 local inhabitants with the national park are not ideal, where conflict often occurs due to restriction of forest resource extraction by the local populations (Buckley 2001).

Location:

Easy access, less than 3 hours of driving from Bangkok

3 gates to the park: Pak Chong – 210 km from Bangkok, Prachin Buri – 202 km

History:

Khao Yai (big mountain) National park was established in 1962, first in Thailand for natural area protection and recreational use. Forested area has decreased since 1961, but the number of national parks has increased, covering 10% of the country rather than 6%, with 94 parks established since 2010 (Mahdayani 2011). The national park is designated as an ASEAN Heritage Park (AHP) as of Nov. 1984, deeming it an area of high conservation importance because of its representation of biodiversity of the entire region (Mahdayani 2011).

The area is divided into six zones because each zone is used for a specific purpose:

Tourism and Outdoor Recreation Zone – 12% (only recreation/tourism area)

Primitive Zone – 79%

Intensive Use Zone – 2%

Strict Nature Reserve Zone – 2%

Special Use Zone – 1%

Recovery Zone – 4%

Conservation:

The biodiversity of the area is extensive. There are tropical forests, and some of the highest mountains in the country are located in the national park (Mahdayani 2011). There are 31 mammal species, 221 bird species, 32 reptile species, and 12 amphibian species (Mahdayani 2011). The area is also a major fresh water source for the region, with the Prachin Buri River, Nakhon Nayok River, Lam Ta King River, and Muak Lek Stream (Mahdayani 2011).

Accommodations

There are four zones that offer accommodation within the park, holding up to 517 people (Mahdayani 2011). There are also two camping sites that can accommodate up to 600 people. There is also overflow camping available, up to 1,200 people, during special times of the year, like the King's birthday in Oct. and New Years Dec-Jan (Mahdayani 2011). The rates are from THB 800 to THB 3600, based on the type of accommodation (Mahdayani 2011)

Accessibility:

The park is easily accessible from many surrounding regions, but the road is best traveled with commercial vehicles. The business partners with surrounding hotels and resorts to provide transportation to and from the national park. There is also a train that leaves from Hua Lamphong Bangkok and stops at Pak Chong (Mahdayani 2011).

Challenges Faced

The biggest challenges were controlling the mass amounts of tourists coming into the park. The management system could not handle the amount of visitors since there were no real permanent employees, and permanent job placement was based on a need basis (Mahdayani 2011). Reservations would not be followed up on, no one would answer phones at times, visitors did not understand the significance of the area, degradation ensued as a result of not having clearly defined and enforced camp rules, and extraction of the forest by surrounding communities is still occurring despite possible consequences (Albers 2001).

Stakeholders

The stakeholders for this enterprise are varied to include government and non-government organizations at the international, regional, and national level (Mahdayani 2011).

Governmental

Royal Forest Department (RFD) – manages forests in non-protected areas

Department of National Parks, Wildlife, and Plant Conservation (DNP) – responsible for managing protected areas, publishes guideline manuals to travel in national parks, codes of conduct, and tourism activities, electronic advertisement

Khao Yai National Park Management – eight management areas with 21 ranger units, responsible for daily operation and conservation in the park, facilitates food and beverage and small shop services, coordinates overnight stays in the park
Tourism Authority Thailand (TAT) – promotes ‘green tourism’ throughout the country, promotes KYNP as a World Heritage Site

International

The United Nations Educational, Scientific, and Cultural Organization (UNESCO) – concern for protecting KYNP as a World Heritage Site, promotes programs for cultural and educational development (not as concerned with environmental aspects)

Regional

ASEAN Center for Biodiversity (ACB) – coordinates cooperation of ASEAN states in conservation and sustainable use initiatives, provided workshop training for increased staff capabilities in management, public awareness, and data management, assists with training in law enforcement

National

PTT Exploration and Production Public Company Limited (PTTEP) – petroleum exploration company that supplies petroleum to Thailand (Mahdayani 2011). Promotes improvement of livelihood and environmental conservation with KYNP as one of its main focuses, actively promotes World Heritage Sites, improved some of the nature trails, renovated visitor center and new souvenir shop, produced a tourism map

Thai Ecotourism and Adventure Association (TEATA) – national body for ecotourism and the adventure industry in Thailand. It is an NGO based in Bangkok, chartered by the government. They sell tourism packages and provide guides to KYNP, they also provide guide training and have done so for 50+ ecotourism guides thus far (Mahdayani 2011). It also actively promotes volunteer tourism in participation with an awareness program for the visitors of KYNP.

National Parks Association of Thailand (NPAT) – an NGO that supports management of national parks and protected areas in Thailand, promotes volunteer tourism at KYNP and increases domestic awareness, has a facebook page.

FREELAND – international environmental and human rights organization focusing on environmental awareness, law enforcement, awareness on the effect of wildlife trafficking, participates in training for KYNP patrol and enforcement to the rangers.

Private Sector

Pak Chong, Bangkok, and Pataya are the main areas where tourism operators provide access to KYNP.

APPENDIX C

Characteristics of Enterprises – CS 2

Case Study #2 – Pangandaran Tourism

This enterprise began as a government funded project to rejuvenate the tourism industry in Pangandaran after the 2006 tsunami, but it has since started to be directed toward a community-based infrastructure in favor of sustainable use and development. The local fishermen and farmers will often turn to the tourism industry in times of low productivity for their true livelihood (CUTB 2007). But, some of the local fishermen and farmers have developed ways to generate direct benefits of the tourism industry through selling their products to other non-local vendors, as well as surrounding restaurants.

This area is also rich in culture, as there are mainly Javanese and Sundanese ethnic groups that dominate the area with small numbers of Chinese, Batak, and Minang (CUTB 2007). Tourists are exposed to a wide range of traditions, festivals, and foods while staying in Pangandaran. It is a prime location to witness the acculturation of Sundanese and Javanese culture (CUTB 2007).

There have been increased initiatives to incorporate the local populations of Pangandaran into the tourism business so that they can generate increased direct benefits of tourism. The tourism related jobs are dependent on the business, but fishing and agriculture are businesses that have sustained by themselves. The local fishing industry has become more dependent on tourism because of the hotels and restaurants becoming frequent buyers of produce.

Tourism laws/guidelines established in 2009 (Law No. 10) (CUTB 2007) established specific goals and parameters that need to be met when developing tourism. Based on these laws, it was decided that the enterprise be carried out with community participation through “suggestions, opinions, considerations, responses, inputs for development, information on potentials and issues, as well as the tourism development plan” (CUTB 2007). A community involvement plan was established in order to lessen the local community isolation-based top-down approach that the Pangandaran enterprise is based on (CUTB 2009a). This plan identifies all stakeholders whose livelihoods can benefit from the tourism business. It also outlines public outreach initiatives all stakeholders can be involved in to increase their say in all development that intends to take place.

There is no overarching community leader for the Pangandaran area, but some of the villages have their own community leaders (CUTB 2009b). Although, because of the sudden mass tourism interference, the communities have become fragmented among themselves as a result of business competition, which could have been addressed early on with a bottom-up approach to the enterprise.

Location:

Pangandaran, Ciamas Regency, West Java Province, Indonesia

Consists of five villages: Babakan Village, Pangandaran Village, Pananjung Village, Wonoharjo Village, and Cikembulan Village

History:

There are several natural landforms that are historical monuments and that are also now tourist attractions, such as Batu Kalde, grave of Syech Achmad, and the Japan Cave

Conservation:

The area is a peninsula, housing a variety of fish and coral life. There is also jungle, housing various species of mammals, birds, reptiles, and amphibians. There are four major rivers that run through Pangandaran: Ciputrapinggan, Cikidang, Citonjong, and Cikembulan, as well as 10 small rivers and three catchment areas: Cijulang, Cikembulan, Ciputrapinggan (CUTB 2007).

There have been a number of conservation initiatives in the area to regenerate some of the once present ecosystems, like the mangrove forests, through the replanting of beach trees after the tsunami, plantation forests in the Nature Recreation Park, and the ongoing STREAM project that serves to conserve, regenerate, and mitigate the condition of the streams in Pangandaran.

The majority of the area of Pangandaran is covered by agricultural ecosystems, as the people there grow rice and fruit. There are some gardens, such as ethnobotanical and fruit, but they are not many. There have been some initiatives to start an agro tourism area, but it has not been fully implemented.

There are three levels of protection that are active at Pangandaran: terrestrial Nature Reserve, marine Nature Reserve, and Nature Recreation Park and they serve as protection zones. The land and marine nature reserves are for research and conservation development, educational and breeding supporting activities. The reserve park is used for those just listed as well as recreational tourism.

Accessibility:

The park is easily accessible by road, taking bus, car, or taxi. The roads from Pangandaran from West and Central Java are manageable and connected by a bus system to Jakarta, Tangerang, Bekasi, Depok, Sukabumi, Bandung, Tasikmalaya, Purwokerto, and Cilacap. There are also non-bus transportation options from Pangandaran to Bandung. There is no air service in Pangandaran. Tourists can also travel short distances by boat.

Accommodations:

Before the tsunami, there were 191 accommodation areas, but it is now 141. This area is one of the largest tourism areas in Indonesia, so it has many types of accommodation for different comfort needs. Less than 5% of the still existing accommodation areas have done impact assessments. Traditional ways of waste

disposal are still practiced, liquids are channeled to the sea, and toilet waste is collected in septic tanks.

Challenges Faced:

There is a weak managerial structure that is said to stem from minimal funding (CUTB 2007). The weak management has led to violence between street vendors, littering, and degradation of coral reef from extraction of various coral species, and differing animal behavior because of people hand feeding the wildlife (CUTB 2007).

Through an interview research program, some of the local population expressed fear that their culture would be disseminated because of the amount of foreign culture being introduced to their environment and to their children, especially (CUTB 2009b).

Stakeholders:

Stakeholders are governmental and community based.

Governmental

BBKSDA Jabar II – manager since 1961

Local Parliament of Kabupaten Ciamis – issues policy for management, approves budget

Local Government of Kabupaten Ciamis – makes policy for management, receives redistribution of tax from Pangandaran

Office of Forestry Kabupaten Ciamis – manages forest areas

Forest Ranger – monitor condition of natural reserve and take action against violations

Marine Police – monitor conditions of marine area and take action against violations

Police – take care of security, law enforcement, and order

Office of Culture and Tourism – Manage important or popular tourism attractions outside the natural reserve and recreation area, facilitates stakeholders

Office of Local Market – Manages vendors, build tourist market in special order, monitor number of street vendors

Office of Marine and Fishery – Build fishing port, monitor fish catchment and type of fishing equipment used

Local Planning Board – Coordinate physical and nonphysical multisector development in Pangandaran

Local Government of Province West Java – directs development at local level, coordinate local government

Desa government – governs the village, manages development at the village

Port Manager – issue permits for renting surf boards

BPSDA (Balai Pengelolaan Sumber Daya Air) - maintains condition of fresh water (rivers)

PDAM (Perusahaan Daerah Air Minum) – provides clean water supply for Pangandaran

Office of Mining, Energy, and Natural Environment – Issue permit to collect ground water

KPKP (Kantor Pelayanan Kebersihan dan Pertamanan) – keep area clean, especially the roads

Community

Fishermen – catch fish in marine areas to sell to restaurants, middlemen, or exporters

Shell Craftsmen – get marine products from fishermen and make handicrafts to sell to tourists or other vendors

Vendor, street vendor, shop owner, vendor at traditional market – sell souvenirs, food, drink, cloth, fish, rent bikes, ATV

Farmer – grow and sell rice to local markets

APPENDIX D

Characteristics of Enterprises – CS 3

Case Study #3 – Casa Matsigenka

This is a true community-based ecotourism enterprise and a prime example of what a case study should be composed of, although more attention to the biodiversity and resource control would be beneficial. The economic aspects and history of the enterprise are outlined very well, identifying what went wrong and how it was changed, or how it may be changed later on. Manu National Park is designated as a World Heritage site and a UNESCO Biosphere Reserve (Ohl-Schacherer, et al. 2008).

Casa M. is completely owned and operated by the Matsigenka people in Manu National Park, Peru (Ohl-Schacherer, et al. 2008). This enterprise was funded by the German government from 1997-2003 (Ohl-Schacherer, et al. 2008). At its beginning, the main problem with this enterprise was that it had a poorly designed business plan. The social and political benefits were very high, but the economic incentives were lacking as the operating costs far exceeded the income generated (Ohl-Schacherer, et al. 2008). The problem with management started during the development stages, where the local population started to sell their services to their competitors (Ohl-Schacherer, et al. 2008).

Essentially, there were discrepancies with some of the other ecotourism enterprises within the Ecotur Manu agency, which led to Casa M. not being able to receive even half of their lodge's income (Ohl-Schacherer, et al. 2008). The other enterprises saw the "free" lodge that Casa M. had as unfair, even though it was built by the people (not free because they provided in-kind donation). Casa M. had to sell its business to its own competitors in order to receive any funds. However, the Cusco admin was able to utilize a loophole, where Casa M. was designated as an experimental lodge in the process of being established as a fully operational enterprise, which was not entirely false (Ohl-Schacherer, et al. 2008).

Even though the area is remote, accessibility did not seem to be a major hindrance to the enterprise. This may be partly because the managerial issues were far greater.

Location:

Manu National Park, Peru

Enterprise composed of two different communities: Tayakome and Yomybato.

History:

Tourism in Manu National Park began in the 1980s (Ohl-Schacherer, et al. 2008). In 1988 there was a concession agreement with a tour operator and the Park, which developed into the first lodge near the lower Manu River. In 1991 there were ten Manu tour operators in Cusco developed what is now the tourism trade network Ecotur Manu (Ohl-Schacherer, et al. 2008). Conceptualization of the Matsigenka enterprise began in 1997 with the construction of a lodge at Cocha

Salvador (Ohl-Schacherer, et al. 2008). It was completed in 1998 with 24 beds and tourists began arriving in 1999 (Ohl-Schacherer, et al. 2008).

Conservation:

The area of Manu National Park is designated as a biodiversity hotspot, as well as a World Heritage site and UNESCO Biosphere Reserve (Ohl-Schacherer, et al. 2008). The conservation efforts of the Matsigenka people are limited as some still participate in swidden agriculture. However, they do have an extreme sense of responsibility for their forest and rivers. The enterprise has also alleviated the discrepancies between the Tayakome and Yomybato communities and the Park authorities so that more conservation efforts can begin to be conceptualized. There was an effort to develop a socio-environmental monitoring program but it was never finished, partly because of the high cost (Ohl-Schacherer, et al. 2008).

The responsibility to police the natural resources is on the Park administration, not the local populations. It is the part of the local populations, however, to adhere to the Parks regulations.

Accommodation:

Manu Lodge has 12 screened in rooms with beds and mosquito nets. The building design is based on local architecture (Expeditions 2008).

Accessibility:

It is a very remote place and the cost to get to Casa M. is high. You can fly to Cusco and from there can either fly into or take rough highways into the Park (Ohl-Schacherer, et al. 2008). Any other transportation requires a boat. The cost of the trip is around \$90-200 per person per day (Ohl-Schacherer, et al. 2008).

Stakeholders:

Gesellschaft für Technische Zusammenarbeit (GTZ) - German foreign aid agency that provided money for the startup of the project

Protected Areas Support Fund (FANPE) Instituto Nacional de Recursos Naturales (INRENA) – Peru's government agency with the responsibility of protected areas

Empresa Multicomunal Matsigenka (Matsigenka Multi-Community Enterprise) – owners and managers of the enterprise

Cusco Administrator – In charge of accounting and marketing the enterprise
Various NGOs – helped with building costs and various training and in-kind donation

Centro de Recursos y Educación en la Selva – created an Ethnobotany Field School pilot program.

APPENDIX E

Characteristics of Enterprises – CS 4

Case Study 4 – Mapu Lahual Network of Indigenous Parks (RML)

This case study is a great example of an appraisal of a community-based ecotourism enterprise that serves the ultimate purpose of streamlining developmental methodology for future practitioners of ecotourism.

Cooperation with governmental bodies, as well as non-governmental organizations, was crucial to the development of the RML. According to McAlpin (2008), “Successful collaboration in the Programa Hueyelhue and the CRC led community leaders, officials from government agencies, and members of non-governmental organizations to see a common interest in working together for the creation of the RML” (pg. 59). There were several obstacles that needed to be overcome, such as: the absence of land titles by the local populations, which disallowed management plans by Corporación Nacional Forestal (CONAF) to be approved – solution was to create a combination of governmental and local population forums to meet and discuss problems and solutions for community development. Another obstacle was the plans for creation of a new highway along the northern coast which would go through the RML land, destroy habitats, and hinder the developmental projects through increased logging accessibility – the solution was the creation of another organization, the Coastal Range Coalition (CRC) to create conservation strategies for the 10th region (McAlpin 2008), as well as a public declaration by the local populations that they believed the construction of the road would destroy their culture, which resulted in redesigning of the highway to reduce environmental degradation (McAlpin 2008).

CONAF officials have expressed a will to go above and beyond their designated tasks because they believe in the cause of social, cultural, and environmental conservation. They do so without pay increase. Pgs 62-63 give inspiring quotes from these activists.

Location:

10th region of S. Chile

Enterprise is composed of 8 different indigenous communities: Maicolpi, Maicolpi Rio Sur, Hueyelhue, Nirehue, Condor, Manquemapu, Melillanca Guanque, and Mahui Dantu

History:

The RML is a community-based organizational group composed of the eight indigenous populations listed above. The people in the area were previously loggers of an endangered species of evergreen tree, alerce, but the forest became decimated and the trees scarce (McAlpin 2008). Because the logging was their primary source of income, when the logging companies stopped, so did a large part of their income (McAlpin 2008). When the local populations realized they needed a new income source, they decided to create for themselves an

organizational unit, composed of all eight indigenous communities. It was then that the plausibility of generating income, while still preserving their forest, was evident to them (McAlpin 2008).

Conservation:

Conservation initiatives increased since the development of the RML because of the prohibition of logging in the area. There is also the agreement with the indigenous populations and CONAF where the local populations agree to report illegal logging and forest extraction in exchange for help with management plan development and implementation.

Accessibility:

Accessibility to the different villages is varied.

Melillance Guanque, Maicolpi, Maicolpi Rio Sur have year round vehicular access; Manquemapu and Mahui Dantu have limited vehicle access on dirt roads Condor, Hueyelhue; and Nirehue have access only by boat or on foot (McAlpin 2008). Accessibility has not been a factor thus far. There have been inquiries to public agencies to increase accessibility, but further environmental degradation would ensue.

Accommodations:

All of the villages but Manquemapu have built community centers for tourist info and community gatherings. None, however, have established permanent campgrounds for the tourists. Maicolpi was involved with the pilot project and does have designated camping areas on the beach. The rest of the RML communities are still developing their accommodations but wish to mimic the Maicolpi campgrounds because of its success.

Problems Faced:

The bigger road blocks came from the highway construction that would inadvertently make logging much easier along the coast, but the MOP was convinced to reconfigure the highway plans to cause less environmental degradation, and to also provide roads to the villages in the 10th region (McAlpin 2008). Other roadblocks were based on lack of solid communication and explanation of how funds were to be distributed. Manquemapu was behind on development because of the lack of common understanding of how funds were to be used (McAlpin 2008). Maicolpi was the only community to withdraw from the RML because the president did not feel she was being informed of new developments to the RML (McAlpin 2008).

Stakeholders:

Mapu Lahual Indigenous Association (AML) – coordinates Mapu Lahual Network of Indigenous parks

Comité Nacional Pro Defensa de la Fauna y Flora (CODEFF) – Chilean conservation organization, member of CRC

Corporación Nacional Forestal (CONAF) – main authority responsible for implementing forestry regulation in Osorno Province

Corporación Nacional Desarrollo Indígena (CONADI) – main agency for Chile's indigenous people

Fondo Nacional Desarrollo Regional Décima Región (FNDR) – development foundation

WWF Valdivia – WWF's Valdivian Ecoregion Program, contributed funds and technical assistance

Fondo Bosque Templado (FBT) – gives grants to local communities and organizations for conservation projects

Chile's Department of Public Works (MOP) – redesigned highway plans to be less environmentally degenerative

APPENDIX F

Characteristics of Enterprises – CS 5

Case Study # 5 – Nam Ha Ecotourism

The province of Luang Namtha is developing a solid infrastructure for tourism that can be applied to eight villages in the Nam Ha protected area of northern Laos. The reasons for wanting this development program was to make life a little easier for the local populations of the Nam Ha Protect Area, where they originally had to travel down steep dirt paths to sell their products (Lyttleton and Allcock 2002). Now the consumers are coming to them. The idea was proposed to the communities by the governor of the Luang Namtha Province, who also opened a tourism information center in the provincial town (Lyttleton and Allcock 2002).

Although governmental bodies manage the project more, there are plans to begin to hand over more of the managerial and ownership roles to the local authorities. The local populations will then have a better chance at attaining and/or maintaining higher managerial and ownership roles (Lyttleton and Allcock 2002).

Location:

Luang Namtha Province, northern Laos

History:

This project has developed into one of the best models for sustainable development and environmental conservation using ecotourism (Gujadhur, et al. 2008; Lyttleton and Allcock 2002; UNDP 2012j). Its main attractions are, of course, the pristine natural environment of northern Laos, but also the very diverse ethnic makeup of the local populations within the Nam Ha protected area (Lyttleton and Allcock 2002).

The ecotourism enterprise involves 33 villages within the Luang Namtha province.

Conservation:

There have been several conservation projects that developed with the help of the ecotourism project in Nam Ha.

- Ban Nam Dee waterfall conservation: this area is a crucial fresh watershed for the province. It has a waterfall that has served as the main attraction. The village signed an agreement that allowed protection and management for the area in exchange for training in tourism marketing (UNDP 2012j).
- Bor Kung Dam: A sacred spring that is famous for its shrimp. With the Nam Ha Project, a dam has been built to increase the size of the pool so that visitors can bathe in a separate area than where the wildlife is. With increased accessibility, the livelihoods of the locals has improved (UNDP 2012j).

- **Khao Rao Cave:** One of the most visited caves in Nam Ha now has lighting and walkways for increased accessibility. Because of an agreement with the local population, the locals now receive 50% of the entrance fees in exchange for securing that the structures within the cave are not destroyed (UNDP 2012j).

The project stakeholders have also worked together in creating a successful revenue sharing scheme to generate funds for conservation (UNDP 2012j). The overall conservation plan is as follows: “Economic and social benefits from tourism for people living in and around the NPA will provide alternative livelihoods that will lead to a reduction in the existing threats to flora and fauna” (Lyttleton and Allcock 2002).

Accessibility:

There is a newly created attachment to the superhighway connecting Bangkok and Beijing, called the North-South Economic Corridor, that passes through the Luang Namtha province and allows easier access to the protected area (Gujadhur, et al. 2008).

Accommodations:

In Luang Namtha, there is an ecolodge called the Boat Landing Guest House and Restaurant (GMS 2014).

Challenges Faced:

The main issues listed in this case study are identified as being competition from other tourism sectors in the area, as well as the global economic crisis that seemed to stunt the amount of tourists starting in 2009 (UNDP 2012j).

There was also the issue of limited staff for the project, but when enough staff was hired, there was a problem with the level of experience that was necessary (Gujadhur, et al. 2008).

The other issue in the developing phases was the delayed receipt of funds from difference agencies (Gujadhur, et al. 2008).

The main shortcomings of this project so far have been for conservation and monitoring of the fauna and flora (Gujadhur, et al. 2008).

Stakeholders:

Asian Development Bank – gave investments for tourism infrastructure

New Zealand Government (NZ Aid) – provided funding for Phases I and II

Japan Government – provided funding for Phase I

United Nations Educational, Scientific and Cultural Organization- provided funding for Phase II of the project

Lao National Tourism Administration

Netherlands Development Organization – analyzed the transitional gap between phases I and II

Luang Namtha Provincial Tourism Office (Department) – national implementing agency

Wildside Rafting – provides management and trekking guides for rafting trips

APPENDIX G

Characteristics of Enterprises – CS 6

Case Study #6 – Kokkrellur

In the district of Mandya, there is a small village along the River Shimsha called Kokkrellur. This village is home to an agricultural community that is also home to one of ten nesting areas in India for the painted stork (*Ibis leucocephalus*) and spot billed pelicans (*Pelicanus philippensis*) (Maria 2013a). This area has attracted birders, as well as the attention of the Forest Department of India. The birds make yearly stops to Kokkrellur in October and November to nest and lay their eggs. The local population has developed not only an emotional, bordering on spiritual, connection to these birds, but also an agricultural dependence as the ‘guano’, or bird droppings, are used as manure for the fields (Maria 2013a). The guano is rich in phosphates, as the birds are primarily fish eaters, making them essential to the agricultural community (Maria 2013a).

Kokkrellur is the first village in southern India to participate with the government of India in creating an ecotourism destination for conservation purposes (ICT 2005; Maria 2013a). The Forestry Department has established outposts close to the village to monitor for poachers, and has also given economic incentive to the local population to leave the nesting trees alone (Maria 2013a).

Location:

Kokkre Bellur, Mandya District, Karnataka, India

History:

no data

Conservation:

There have been a few conservation efforts since the creation of an actual ecotourism destination in Kokkrellur. One of these is the protection of the nesting trees, which are tamarind, peepal, and portia bristle species, under the Karnataka Tree Protection Act (Maria 2013a). Approximately Rs 50,000 are dispersed to the local population by the Forestry Department for protection of the trees and documentation of the number of nests per season (ICT 2005; Maria 2013a).

The villagers do not feed the birds, and contact is only based on observation, nothing tactile, yet the birds still flock to the area every season. Conservation efforts need to increase because the pelican is now on the endangered species list. This area must be preserved because it is one of ten known nesting sites in India for these birds (Maria 2013a).

Accessibility:

Accessibility to the area is fairly easy. The village is approximately 80 km from Bangalore, one of the larger cities in the southern area of India. The village is accessible by vehicle, however it is easy to pass by because of the small signage (Maria 2013a).

Accommodation:

no data

Challenges Faced:

Approximately five years ago, the village was struck by a flu epidemic, and at that same time the birds did not come that season (Maria 2013a). It is possible that the birds were aware of changing weather patterns and decided to venture elsewhere (Maria 2013a).

Stakeholders:

Local Population of Kokkrellur – residents of the sanctuary, developed the tourism for the area, monitor the bird populations

Forestry Department of India – helps with infrastructure of the tourism enterprise, helps with conservation efforts to maintain bird species

APPENDIX G

Characteristics of Enterprises – CS 7

Case Study #7 – Phansoli Eco Development Committee

On the southern coast of India lies the Karnataka Province, which has had a long history of conservation efforts in conjunction with local development (KFD 2004a). This state is one of the first to require local community involvement in sustainable forest management, beginning with a court mandate in 1993 (KFD 2004a). Ten years ago, Phansoli became one of the communities involved in maintaining conservation integrity for their buffer zone locality of the Dandeli Wildlife Sanctuary (Maria 2013b).

The Dandeli Wildlife Sanctuary has had some drastic changes since 2012. Most noteworthy is the Supreme Court ruling that “Tiger Tourism” is banned throughout all of India because of the dwindling populations of Indian tigers (Aravind 2012). Because of the Supreme Court ruling, there could be a change in some of the communities participating in the Joint Forestry Protection Management program. However, Phansoli lies within a buffer zone of the Dandeli Wildlife Sanctuary and does not advertise tiger tourism.

Location:

Karwar (Uttara Kannada) District, Karnataka, India

History:

This local population developed their own political systems as a partial requirement of the Joint Forestry Protection Management program (KFD 2004b; Maria 2013b). The community has had much success in being proactive and having their voices heard to the extent that they have become a lobby of their own (Maria 2013b). The community is required to appoint a Deputy Range Forest Officer to oversee the policing of their area of forest (Maria 2013b). They have recently requested more autonomy from the state government regarding how their enterprise operates (Maria 2013b).

As part of the agreement for participation in the Joint Forestry Protection Management program, communities are required to represent females in at least 50% of their governmental body (stakeholder group, management, and ownership) (KFD 2004b; Maria 2013b). At the project's inception, the women still felt marginalized and were not given as much leadership opportunity as the men (Maria 2013b). However, in the past ten years the women have developed a voice in their community as managers and are moving closer to being involved in ownership responsibilities (Maria 2013b).

Conservation:

Project Tiger is the main conservation effort, headed in conjunction with the Joint Forestry Protection Management communities and the state government of

Karnataka. 25% of the income generated by the buffer zone ecotourism enterprise is given to Project Tiger (Maria 2013b).

Accessibility:

no data

Accommodation:

no data

Challenges Faced:

Women have felt marginalized but they are now developing a stronger voice in their community with the help of the state government of Karnataka.

Project Tiger may have reduced the number of visitors to the area, but it has not readily affected them because the enterprise is still fairly new.

Stakeholders:

Phansoli community – manages forest policing and runs ecotourism attractions

Karnataka Forest Department – provides infrastructure support and communicates with higher government regarding concerns voiced by the local community, heads Project Tiger.

APPENDIX H

Characteristics of Enterprises – CS 8

Case Study #8 – Chambok Ecotourism

Because of this enterprise's success, Chambok Ecotourism was asked to create multiple other ecotourism/community development programs in other provinces of Cambodia (Moeurn, et al. 2008). The project was developed by the Cambodian based NGO Mlup Baitong (MB), which means 'green shade' (Moeurn, et al. 2008). Currently, Mlup Baitong oversees nine more ecotourism/community development sites in Cambodia (MB 2012; Moeurn, et al. 2008).

According to the Mlup Baitong 2012 annual report, 49.99% of direct beneficiaries of the ecotourism enterprise have been female (MB 2012). Thirteen Women Self Help Groups were established by the Women Association, and these groups are active in creating employment opportunities specifically for women (Moeurn, et al. 2008).

Location:

Chambok Commune, Phnom Surich District, Kampong Speu Province
Community Protected Area, border of Kirirom National Park

History:

This community-based venture is composed of nine villages in the Chambok Commune, which encompasses approximately 500 households (Moeurn, et al. 2008). The structure that MB used as an exit strategy was very well thought out. It is based on what they term a "micro-project approach", where small amounts of ownership and management responsibility are taught to the Management Committee, composed of thirteen representatives of the nine villages, and then that information is disseminated by the thirteen to the rest of the members in the community involved in management (Moeurn, et al. 2008).

Conservation:

In 2008, under the then newly established Protected Areas Law, the Cambodian government created new zones for effective management of protected areas because of the high reliance of local populations on forest products, such as timber (ODC 2014).

The communities, with the help of Mlup Baitong, have organized waste management, site cleaning, installation of trash receptacles, educational signs about conservation importance, and community policing procedures for illegal forest extraction (Moeurn, et al. 2008). There came an increase in the acceptance of conservation when, on forest patrols voluntarily conducted by community members, it was observed that more fauna returned to the area (Moeurn, et al. 2008).

The ecotourism business brought local economic success (although not economically sustainable) and local conservation awareness to the extent that some of the local populations of the nine villages have changed their jobs to be more environmentally sustainable (Moeurn, et al. 2008). There have been 75 charcoal kilns destroyed, which has saved hundreds of trees from being cut down on a daily basis (Moeurn, et al. 2008).

Accommodation:

There are 37 homestays in nine of the villages involved with the ecotourism enterprise and lodging costs \$4 per person/night (Chambok 2013).

Accessibility:

The area within the national park is accessible by traveling from National Road 4 and take small gravel roads to the village. However, vehicles are not permitted within the site area so tourists must walk on forest trails to the site. It does not hinder success of the enterprise and also helps maintain low carbon emissions within the national park.

Challenges Faced:

Challenges to the development of this project lie with the lack of basic education of the community members, the lack of conservation and biodiversity appreciation and knowledge by the local community, acceptance of the requirements of a community-based approach by tourists and local authorities (like why it is important not to litter), maintaining surveillance of the surrounding forest to look for illegal burning and extraction, and lack of expertise in tourism by the NGO Mlup Baitong (Moeurn, et al. 2008). The lack of expertise was acknowledged by the NGO and they took action to bring in an ecotourism expert from Japan to guide the infrastructure development, which provided the staff with an effective model to learn with (Moeurn, et al. 2008).

Stakeholders:

Host communities (nine) – manage and own the business, and police resources

Mlup Baitong – NGO that implemented the project, provided training in all aspects of development, created and implemented exit strategy

Ministry of Environment – secured the Community Conservation zone inside Kirirom National Park

Provincial Department of Tourism – aided with infrastructure development and oversight

Provincial Department of Environment – provides monitoring support and sanction

Kirirom National Park – partnered with communities to develop an ecotourism site within the park, helps with monitoring flora and fauna

Provincial Governor – provides executive support for infrastructure and community development

APPENDIX I

Characteristics of Enterprises – CS 9

Case Study #9 – Posadas Amazonas

This enterprise is one of three lodges within the Madre de Dios region. One of these, Posadas Amazonas, is completely owned by the local Ese'jea population, which are officially called the Native Community of Infierno (NCI). The enterprise is currently co-managed by the NCI and Rainforest Expeditions, an NGO that also manages the Tambopata Research Center (IFC 2004). The co-management system is set up to gradually give all managerial positions to the NCI within 20 years (Holle 2013; IFC 2004; UNDP 2012g). The organizational structure is also set up as an equal representation forum with five representatives from NCI and five from Rainforest Expeditions (UNDP 2012g).

It is said that the key success factor of this enterprise is the cooperation with the local population and private sector to develop an effective business plan (UNDP 2012g). 60% of the income goes directly to the NCI, while the remaining 40% goes to Rainforest Expeditions until the 20-year co-management plan is fulfilled (Holle 2013; IFC 2004; UNDP 2012g). The ecolodge generates enough funds to the extent that a percentage is saved for community development in the form of educational loans and health care for the elderly (UNDP 2012g). On their own, the communities actually delineated 20% of their overflow earnings specifically to education, rather than dispersing the funds to all members of the NCI (UNDP 2012g).

Location:

Tambopata National Reserve community development buffer zone, Tambapata, Madre de Dios, Perú

History:

The NCI populations were primarily agriculturalists who also participated in some minor hunting and gathering (UNDP 2012g). The pressures from their past activity resulted in depletion of the area of rainforest they maintained, which prompted them to turn to a more sustainable method of income generation.

Conservation:

With the 1973 Law of Native Communities, passed by the Peruvian government, all indigenous peoples of Perú were required to develop communities and demarcate their land in order to have legal recognition of territory rights (UNDP 2012g). The Native Community of Infierno was the first to be recognized within the region of Madre de Dios (UNDP 2012g). The development of the Tambapata National Reserve began in the 1990's, which has been linked to an increase in tourism activity in the area at that time (UNDP 2012g). The national reserve ended up claiming a portion of the Native Community of Infierno's territory,

however it was disputed and they were able to reclaim their land by allocating approximately 30% of it as a communal reserve (UNDP 2012g).

There have been multiple partnerships with the NCI and NGOs and researchers, such as Conservation International, to create biodiversity monitoring procedures, as this area is one of the more biodiverse in South America (UNDP 2012g). The NCI are responsible for recording data on floral and faunal species, which has helped determine the effect that ecotourism has had on the area (UNDP 2012g).

There is a new highway that is being drafted and will connect the Atlantic coast in Brazil to the Pacific coast in Peru, going right through Madre de Dios. The community has lobbied against it, generating support from other communities nearby to stand with them in opposition to the new highway (IFC 2004; UNDP 2012g).

Accommodation:

The lodge has 30 rooms and is made from renewable resources in a non-invasive fashion (IFC 2004; UNDP 2012g). The lodge is built on the native land of the NCI, which is just outside the national reserve. Having such a close proximity to the reserve allows visitors to experience more than the locale of Posadas Amazonas (UNDP 2012g).

Accessibility:

This region is highly accessible as it is 1.5 hours up river from the Puerto Maldonado, which houses one of the largest airports in the area (IFC 2004; UNDP 2012g).

Challenges Faced:

At the onset of the enterprise, income distribution was slightly more disorganized, and there were racial tensions between mestizos and the Ese'jeja (UNDP 2012g). There were also fears that increased profit would lead to increased materialistic lifestyle (UNDP 2012g). Some of the community members also used their funds to buy things such as chainsaws and rifles, which are associated with illegal forest extraction and hunting of fauna, respectively (UNDP 2012g).

Stakeholders:

Conservation International – helps with monitoring endangered species in the area, provides monetary reward for spotting harpy eagles based on the number of tourists who were able to see it

Frankfurt Zoological Society – helped implement codes of conduct for conserving reproduction areas for the giant otters

Wildlife Conservation Society

MacArthur Foundation – a grant for \$50,000

Critical Ecosystem Partnership Fund– supported Trueque Amazónico initiative

Peru-Canada Bilateral Fund – helped fund the lodge construction and initial training

Peruvian Society for Environmental Law – supported Ecotourism Concession
Interamerican Foundation
American Bird Conservancy
World Bank – provided grant for artesian workshop development

APPENDIX J

Characteristics of Enterprises – CS 10

Case Study #10 – Kapawi

The case of Kapawi is unique in that it is extremely isolated and attracted the higher end type of tourist (Wood 1998). There are sixteen communities involved in this ecotourism venture, all located in the indigenous land of the Achuar (Wood 1998).

There is a level of cultural awareness demonstrated by Daniel Koupermann, the chief instigator of the Kapawi ecotourism enterprise. He was the one who created the connections between the local populations and the industry of tourism, as he was part of a tourism operation called EcoTrak (Stronza 2003). What stood out was that, when the Candoros organization started to be viewed as a sort of charity to the Quechua ethnic group, who had most of the control over the money, he quickly combated by ensuring that the Achuar be involved with every aspect of ownership and management of the enterprise, as to not disintegrate their cultural practice of giving without expecting something in return (Stronza 2003). This cultural awareness can be said to spark the intrinsic communal involvement of the Achuar with the Kapawi enterprise.

Location:

SE Ecuador near Peruvian Border on the Pastaza River

History:

The Achuar were, and are still to some extent, semi-nomadic farmers, fishers, and hunter-gatherers (Stronza 2003). At the onset of the enterprise, timber and oil companies were pressuring the area (Stronza 2003). However, there were tourism operations going down the river, passing by the Achuar territory and the now current executive of Candoros saw the potential of the area to be a tourism destination, pursued the idea though seeking out FINAE (Federación Interprovincial de Nacionalidades Achuar del Ecuador), and starting the beginning stages of their ecotourism enterprise in the lagoon of the Achuar territory (Stronza 2003).

Conservation:

All of the soaps and other cleaning supplies are biodegradable, the plastics and metals and glass are bundled and flown to the city for recycling, paper is burned, and biodegradable waste is used as compost (Stronza 2003).

Accommodation:

The lodge complex is built like an Achuar village – which is not surprising since the Achuar were the primary architects of the entire lodge (Stronza 2003). There are 21 cabins that all have double rooms, solar-heated showers, reclining chairs, balcony, beds, and hammocks (Stronza 2003). There are also water-pumps that go to five main reservoirs near the kitchen area (Stronza 2003).

Accessibility:

Accessibility to this area is difficult. There is an airplane ride from Quito to the airstrip in one of the Achuar communities, then a two hour motorized canoe ride down the river to the Achuar lagoon, and then a winding walk through the forest on a bamboo boardwalk (Stronza 2003).

Challenges Faced:

There have been two major challenges Kapawi has faced since its inception. The first is the issue of accessibility because of the extensively remote location of the lodge and high cost of getting there (Wood 1998). The second problem has been acculturation of the native peoples into a more Westernized idea of income generation, mainly cattle raising (Wood 1998). There is also the issue of cultural differences, where there is a business mindset of needing to generate income for the enterprises longevity, and the mindset of the Achuar that they do not need money (and they have not needed it for a while). The Achuar will leave suddenly, abandoning the site to provide for their family (Stronza 2003).

Another issue voiced by the general manager of Candoros was that tourism operators take a long time to include Kapawi in brochures – they do not see it as unique enough to have its own place in their marketing scheme (Stronza 2003).

The last issue was deciding how income was to be dispersed between the communities involved (Stronza 2003). There are eight Quechua families in the area who are controlling most of the money, making the Achuar families intimidated, not wanting to confront them (Stronza 2003).

Stakeholders:

Indigenous Organization of Ecuadorian Achuar Nationalities (OINAE) – organizational body of Achuar representatives

Candoros – tourism operator that is seeing the enterprise through to complete community ownership and management, helped financially

Federación Interprovincial de Nacionalidades Achuar del Ecuador (FINAE) – governing body of Achuar communities

Pachamama Alliance – helps prepare community for big oil encroachment, financial help

APPENDIX K

Characteristics of Enterprises – CS 11

Case Study # 11 – Zabalo Ecotourism

This is one of the best examples of an ecotourism enterprise that is completely owned, managed, and operated by a local population. Most of the success of this enterprise goes to Randall Borman, who was a resident of the Cofan, left for schooling, came back and created the entire business which is now a major conservation force in the Ecuadorian Amazon (Wood 1998).

Location:

Zabalo, Sucumbíos, Ecuador

History:

The Zabalo ecotourism enterprise has been in existence for approximately 36 years and has maintained to be recognized as one of the best examples of community-based ecotourism in South America (Wood 1998). It was Randall Borman who instigated the social recognition of the Cofan people and brought ecotourism to the community, as he had grown up there himself (Wood 1998). Backpackers would pass by the village before the ecotourism enterprise was set up, so, realizing there was already a clientele who was interested in the area, Borman began to make connections with tourism operators to create a larger clientele (Wood 1998).

Conservation:

They successfully secured a co-management and cooperation agreement with the Ecuadorian Ministry of Environment and gained official rights to protect and manage their 250,000 acres of land in the Cayambe-Coca Ecological Reserve, recovered ancestral land within the Rio Cofanes Territory, and gained rights to use and manage their 370,600 acre Cuyabeno Wildlife Reserve (CSF 2013). They have also started a turtle repopulation program for the river and a water monitoring program, and are also in the process of creating a ‘franja verde’ which translates as ‘green strip’ that will pass through Carchi and Imbabura provinces in Ecuador and the La Bonita Municipal Reserve (CSF 2013).

Accommodation:

The accommodations are wooden and thatch huts with beds

Accessibility:

Flights can now be direct from Quito to Zabalo.

Challenges Faced:

Main challenges came from international wars that bled into Ecuador. One of these was the war in Peru, which created instability for all of Peru’s bordering

countries (Borman 2008). The main challenge came with the United State's war on drugs, which led to the Sucumbíos province (that Zabalo is located in) being placed on the travel advisory board (Borman 2008). The issue snowballed with former U.S. president Bill Clinton's 'Plan Columbia', which destabilized the Ecuadorian-Columbian border and resulted in numerous murders, kidnappings, and guerilla attacks all along the border (Borman 2008). With such a threat, the amount of tourists came close to a dead stop, and Borman and the rest of the Cofan new they needed a route to their safe area that bypassed the terrorist threats which led them to create their own airstrip so that direct flights from Quito could land in Zabalo (Borman 2008). There was still an issue with low tourist activity, so they created two different online funds: Cofan Survival Fund and Fundación Sobrevivencia Cofan (Borman 2008). These funds allow them to gain more publicity and at the same time generate funds to preserve their native land and culture (Borman 2008).

Stakeholders:

Community of Zabalo Cofan – manage, own, and operate all ecotourism activity
USAID – gave startup fund for the project
International governments (not listed) – gave funds for infrastructure support
Volunteers – helped create the online source for handicrafts made by the Cofan

APPENDIX L

Characteristics of Enterprises – CS 12

Case Study # 12 – Chiphat Ecotourism

This enterprise is a good example of a community-based approach headed by a competent NGO. The infrastructure was simple and mainly headed by the local population of Chiphat, which makes a big difference. The NGO did provide support and training, but they integrated the right people from the community into the right places. Although women were still very much marginalized in the beginning of the venture, women are now holding higher managerial positions, guide positions, as well as the hospitality positions (Reimer and Walter 2013; W.A. 2012).

Location:

Chiphat commune, Thma Bang Dist., Koh King Province, Cambodia

History:

The Chiphat commune was originally a military base for the Khmer Rouge during the years of 1975-'79, and was later occupied by Vietnamese troops, until its current status of Chiphat commune (Reimer and Walter 2013). Wildlife Alliance has been the main financial and other support provider for this enterprise, with the help of USAID and an Australian NGO Live and Learn (Reimer and Walter 2013).

Conservation:

There have been several conservation initiatives done with the local management of Chiphat CBET (Community-based Ecotourism) and Wildlife Alliance, and some have been in the form of resistance to governmentally approved mining and logging (Reimer and Walter 2013). One project was a reforestation project, where men and women planted 500,000 trees and approximately 450 acres of seedlings, which has now become a major tourist attraction as well (Reimer and Walter 2013). There have also been scheduled community trash pickup once a month, which is required by every resident, plus Wildlife Alliance has helped establish a trash pickup system that has also benefited villages outside of Chiphat (Reimer and Walter 2013).

Accessibility:

The destination is accessible by motocar, by foot, or by boat. It is located on the Stung Phipot (Phipot River) and is linked to a main road, Road 48, which leads to Phnom Penh.

Accommodation:

There are twelve guesthouses that visitors can stay in, as well as five homestays (living with a family in the community), and a small lodge, the Sothun Lodge, that is located on a small island near the CBET office (KohKong 2013).

Challenges Faced:

Most of the challenges have been on the part of the provincial government, which allowed titanium mining to begin in the Chiphat territory (Reimer and Walter 2013). Luckily the action failed and the mining never went through (Reimer and Walter 2013). According to Reimer and Walter (2013), there will always be threats to this area from timber, oil, and mineral mining by the upper class.

Stakeholders:

Chiphat CBET – local populations, manage the infrastructure; serve as guides, and main hospitality staff

Wildlife Alliance – main provider of funds and in-kind donation for the entire project, has dedicated to stay with the project for six more years

Live and Learn – Australia based NGO that provided guide, hospitality, finance, and other training to local population

USAID – provided award for sustainable development potential

APPENDIX M

Characteristics of Enterprises – CS 13

Case Study #13 – Wechiau Community Hippo Sanctuary

This case study is an example of an ecotourism enterprise that started as an income generator for local development and continued conservation of one of two locally endangered hippopotamus species (*Hippopotamus amphibious*) (UNDP 2012m). Ecotourism is the main income generator of the conservation effort and most of the livelihoods of the native peoples within the sanctuary (UNDP 2012m). There are four ethnic groups living inside the sanctuary: Wala, Birifor, Hausa, and Dagaabe (UNDP 2012m). However, it is only the Wala who have official land titles to the area (UNDP 2012m). In order to achieve complete community representation, the Sanctuary Management Board was established (UNDP 2012m).

There have been substantial benefits to these communities as a result of the hippo sanctuary, such as the establishment of primary and secondary schools, high school scholarships, alternative harvesting in combination with international vendors, increased accessibility to healthcare, and education about conservation need (UNDP 2012m). Of particular interest is the shea nut business that now employs 1,445 women from every village within the sanctuary (UNDP 2012m). Income generated from this business goes directly to the women, but one company, the Savannah Fruits Company, has elected to include a 5% conservation premium (UNDP 2012m).

Location:

Wa West, Ghana

History:

The Wechiau Community Hippo Sanctuary was established in 1998 from a proposal by the Paramount Chief of the Wechiau Traditional Area, with the collaboration with the Chiefs sub-chiefs and options from other local residents (UNDP 2012m). In the past, Ghana's Wildlife Division had proposed to the Wechiau some development and conservation partnerships with the government, but they were denied by the Wechiau (UNDP 2012m). Now, the hippo conservation area is completely owned and managed by the communities within the sanctuary.

Conservation:

In terms of conservation, the sanctuary has secured a population of 50 hippos within the protected area, and since the sanctuary's establishment, there have been no reported poaching in the area (UNDP 2012m). The sanctuary has established specific bylaws that prohibit all hunting within the area, and the Ghana Wildlife Division of the Forestry Commission recognizes the area as completely managed and owned by the local populations (UNDP 2012m).

In order to delineate the borders of the sanctuary, the park rangers planted mahogany trees all along the border, as well as a fire trench (UNDP 2012m). Mahogany trees were selected because they are fire resistant, so this would help reduce fire damage in the event of a natural or otherwise inflicted fire (UNDP 2012m).

Based on research data collected by the local population and other research teams, biodiversity within the sanctuary is greater during drought months, but about the same inside and outside the sanctuary during wet seasons (UNDP 2012m).

Accommodation:

There are two tourist lodges in the Lobi communities with distinct architectural designs (Expeditions 2013). Visitors can also sleep in the Hippo Hide Tree House, which offers excellent view of various wildlife (Expeditions 2013).

Accessibility:

The area is accessible by boat or by vehicle, until the sanctuary border. The bylaws prohibit any vehicles within the sanctuary (UNDP 2012m).

Challenges Faced:

Within the protected area, the hippos are safe. However, outside of the area, especially along the river, it will be difficult to maintain governance of illegal poaching (UNDP 2012m). There was also a flood in 2010 that significantly reduced the number of ecotourists because accessibility to the area was near impossible (UNDP 2012m).

Stakeholders:

Calgary Zoological Society – provided funding for various community enhancement programs

Canadian Hydro Developers – helped drill fresh water wells

Ghana Tourist Board – partners in tourism marketing

Healthy Hope for Health – provides healthcare supplies directly to the area

Light Up The World Foundation – created solar power access within the sanctuary

Nature Conservation Research Center

USAID – provided grant for community development programs

Wa West District Assembly – provides governmental support for conservation and community development initiatives

APPENDIX N

Characteristics of Enterprises – CS 14

Case Study #14 – Anja Miray Association

The Anja Miray Association is the most visited ecotourism destination in Madagascar (Gould and Gabriel 2013; UNDP 2012b). It has achieved economic sustainability, its conservation sustainability is developing with increasing lemurs and avian populations and reduced hunting, and the social sustainability continues to grow through increased community employment and sustainable agricultural methods to combat low tourism seasons (UNDP 2012b).

Besides the main sustainability factors, this enterprise has secured positions for employment for females, numbering their representation in over 50% of the association (UNDP 2012b). The government of Madagascar has dispersed knowledge of the association's success to other villages, and has helped fund training sessions in community management and leadership led by the Anja Miray Association (UNDP 2012b).

Location:

Anja, Haute Matsiatra Region, Fianarantsoa Province, Madagascar

History:

Established in 1999, the Anja Miray Association covers approximately 30 hectares of forest. This association started with 20 Malagasy men from two villages who realized the forest devastation as a result of logging and traditional slash and burn agriculture (Gould and Gabriel 2013; UNDP 2012b). The men appealed to the forest service in Madagascar who helped them organize local farms into a force to reduce deforestation in their community, basing the laws on traditional custom laws called Dina (UNDP 2012b). The Malagasy Government (Ministère des Eaux et Forêts) handed over all management of the project to the community in 2000 (Gould and Gabriel 2013).

This association was thinking ahead, referring to the economic sustainability of their enterprise. Although the ecotourism business gives economic sustainability, the association realized the unstable nature of tourism and developed sustainable agricultural methods for farming, which actually doubled their harvest yields for rice and tomatoes (UNDP 2012b).

The association has also been very proactive in female representation in all aspects of the association's structure and projects. Over 50% of the association's members are women from the local population (UNDP 2012b). The business of handicraft sales has been given specifically to the women, as well (UNDP 2012b).

Conservation:

The association has developed methods for sustainable rice farming, coupled with reintroducing a traditional practice of raising fish in the flooded rice fields (UNDP 2012b). With the ecotourism business, farmers are also less dependent on slash and burn agriculture (UNDP 2012b). There is a ban on the harvesting of plants from the forest, with the exception of some ceremonial herbs, and eucalyptus trees are planted in the community to provide a source of firewood (UNDP 2012b).

The reforestation efforts in the Anja area has introduced previously extinct native tree species, as well as some new species, into the forest (UNDP 2012b). These new species provide another food source for the growing lemur and avian populations, and the entire reforestation project helps increase water infiltration of the soil, bringing more fresh water to the communities and reducing draught (Gould and Gabriel 2013; UNDP 2012b).

Accommodation:

Accommodation is basic and includes campsite with hot and cold showers (T4A 2014).

Accessibility:

The association's land is easily accessible by road

Challenges Faced:

Main challenges have been in thinking about future plans. The association realizes the unstable nature of the ecotourism industry and does not want to fall back into needing unsustainable agriculture, so they developed more sustainable ways of cultivating rice and tomatoes (UNDP 2012b)

Stakeholders:

UNDP – gave startup grant

SGP Madagascar – supports local development efforts

Ministry of Environment and Forestry – helped maintain community management and ownership of the association's territory and its new laws

Municipality of Larintsena – handed over managerial status to the community

APPENDIX O

Characteristics of Enterprises – CS 15

Case Study #15 – Foundation for Monte Alto Forest Reserve

The ecotourism business was created to supplement the conservation area established and co-managed by the foundation and the Ministry of Environment, Energy, and Telecommunications (UNDP 2012h). This seems to be in reverse to some established ecotourism enterprises, where a conservation area developed after the development of the ecotourism business. It seems that this model, with conservation coming first, has created a solid environmental sustainability factor.

What is inspiring about this enterprise is the foresight for active conservation longevity. They address environmental education and cater sustainable farming to those farmers who wish to keep their land, also through educational vices (UNDP 2012h). A couple of the programs to stem from sustainable farming are two women's organizations focusing on apple wine and handicrafts (UNDP 2012h).

Location:

Hojancha, Nicoya Peninsula, Guanacaste Province, Costa Rica

History:

This foundation was started by twelve local farmers from Hojancha in 1994 (UNDP 2012h). The area was stuck with drought for decades, and the watershed of the Nosara River, which the locals of Hojancha are very dependent on, lowered to the extent that half the population emigrated from the area between 1968 and 1992 (UNDP 2012h). Such devastation was the reason for the development of the Foundation for Monte Alto Forest Reserve (Fundación Por Reserva Forestal Monte Alto). The land for the conservation area is bought from farmers who will have access to all income generating activity (UNDP 2012h). In 1994, the municipal government and MINAET (Ministry of Environment, Energy, and Telecommunications) created the Monte Alto Protected Zone, which is approximately 924 acres (UNDP 2012h). Ecotourism has become the main income generating activity within the protected area that supports the conservation and social development of the Hojancha population (UNDP 2012h). The foundation is recognized as a non-governmental organization under Costa Rican Foundation laws (UNDP 2012h).

Ecotourism developed as schools, universities, and researchers came in, requesting to visit the area (UNDP 2012h). The foundation decided to create a sort of participatory ecotourism, where the local populations could supply housing and food in the form of family businesses for visitors (UNDP 2012h). According to UNDP (2012h), Ecotourism has grown to include a lodge “ ‘eco-museum’, and cultural and environmental information center” (pg. 6).

Conservation:

Conservation of the area is based mainly on land purchase from local farmers (UNDP 2012h). Members of the foundation are required to pay \$4 a month to a fund that is specifically for land purchase, and that land is either set aside for conservation or is reforested by native or exotic tree species (which are able to adapt to the area) (UNDP 2012h). The conservation area is also continuously monitored for illegal extraction, hunting, poaching, and a local fire fighter brigade was created to monitor and control fires within the forest (UNDP 2012h).

The foundation saw the limit of reforestation initiatives, and turned sights toward education of the younger generation so that conservation and environmental awareness would be instilled in their children and continue (UNDP 2012h). There is also an effort to create sustainable farming technique to those local farmers whom do not want to sell their land, but do want to be involved with conservation (UNDP 2012h).

According to UNDP (2012h), a number of animal species have returned to this area and use the conservation land as a migration corridor, and some endemic plant species have returned to the area.

Accommodation:

Visitors can stay at the various lodges, such as the Dorati Lodge, or in family run and owned houses (UNDP 2012h)

Accessibility:

The area is very accessible and close to Nicoya, a major tourism hub in the Guanacaste province.

Challenges Faced:

It was observed that the conservation initiative was not going to be sustainable long term, especially since buying land was expensive, so the foundation developed an ecotourism business (UNDP 2012h)

Stakeholders:

TropicaVerde – supports land acquisition, reforestation, biodiversity research, and educational fundraising

The Costa Rican Ministry of Agriculture and Livestock – promotes local sustainable farming initiatives

The Costa Rican Agricultural Center of Hojancha - local farmers association

The high school of Hojancha – assists with agroforestry every year

Costa Rican Ministry of Environment, Energy, and Telecommunications – provides full time employment for two staff and a vehicle

APPENDIX P

Characteristics of Enterprises – CS 16

Case Study #16 – Rumbo Al Dorado Ecotourism

This example of community-based ecotourism combines several communities within the Pacaya Samiria National Reserve. The initiative was established in order to create sustainable development techniques for these communities and increase conservation efforts (Gockel and Gray 2009; Lau 2007). The communities themselves created management committees, only composed of members of the local populations (Lau 2007).

There is clear cooperation with local, municipal, regional, and international governments in order to create sustainable development. Social empowerment seems to be one of the main indirect benefits of this sustainable development technique, as many residents of the host community indicated a sense of enhanced self-esteem and communal cohesion (Gockel and Gray 2009).

Location:

Pacaya-Samiria National Reserve, Loreto Region, NE Amazon, Perú

History:

In 2000, the project received funding from USAID and the Rumbo Al Dorado Consortium was formed from residents of local populations within the protected area (Lau 2007). Three lodges were built in 2001, and in 2003-2004 training in hospitality, management, tourism, and conservation awareness took place with the help of NGOs and some Peruvian governmental authorities (Lau 2007). The initiatives were integrated into the Parks in Peril program, by USAID and the Nature Conservancy, and was coordinated by NGO ProNaturaleza (Lau 2007). It was proposed that by 2009 the entire enterprise, including the conservation efforts, will be completely community owned and managed (Gockel and Gray 2009).

Conservation:

Conservation initiatives were primarily headed by NGO ProNaturaleza through workshops that combined scientific methodology and local knowledge about the resources in order to collect data on the current state of ecological decline in the area (Gockel and Gray 2009). The community members helped create maps of the area and indicated, based on their own observations, what areas were being most deteriorated so that efforts in critical areas could be addressed first (Gockel and Gray 2009). Having the local populations involved with the creation of conservation initiatives allowed for increased acceptance of the conservation management strategy (Gockel and Gray 2009). Resources sold at markets are two fish called paiche and arawana fry, and also yarina palms (Gockel and Gray 2009).

Accommodation:

There are three lodges along the Yanayacu Pucate River (Lau 2007). The lodges are run by solar energy and each lodge is limited to eight occupants (Yacutayta 2008).

Accessibility:

Travelers must fly into Iquitos from Lima and then take a bus or boat depending on the type of travel the tourist wishes (Yacutayta 2008).

Challenges Faced:

At the onset of the project, there was little local population involvement (Gockel and Gray 2009; Lau 2007). The community members also lacked official identification, so it was difficult to secure land titles and official business operation permits (Lau 2007). The low education level in these communities also set back progress because extensive training workshops needed to develop (Lau 2007). Regarding income maintenance, the income generated by the development techniques inside the protected area were being used haphazardly, at first (Lau 2007). There was no indication that the community members were putting a percentage of the income toward a fund to support the project longevity, but once they were introduced to the idea there were efforts to create such a fund (Lau 2007).

This enterprise utilizes ecotourism as a source of supplementary income that supports the local population's sustainable harvesting and fishing practices. Ecotourism is not their main source of income.

Stakeholders:

Rumbo al Dorado Consortium – main managing structure composed on participants of the local populations

ProNaturaleza – main NGO that helped create the sustainable development practices, provided training, and is working to integrate the host communities into full management and ownership

USAID – funded initial development and training development

Institute of Natural Resources (IRENA) – helped coordinate construction of the lodges, helped perform impact evaluations

Regional Directorate for Foreign Trade and Tourism – helped establish the training programs

APPENDIX Q

Characteristics of Enterprises – CS 17

Case Study #17 – Chalalán Eco-Lodge

This enterprise is a prime example of a community-based initiative to create sustainable livelihood and environmental conservation. The community members of San José de Uchupiamonas initiated the development of the enterprise and actively sought funding for their idea (UNDP 2012e). This enterprise has served as a model that is referenced as a proprietor by over 50 other ecotourism initiatives in Bolivia (UNDP 2012e).

As a result of this lodge, Chalalán developed INTIRUNA, which is an ecotourism network specifically for community-based enterprises in Latin America (UNDP 2012e). According the UNDP (2012e) report, three main factors can be attributed to the success of this enterprise: attainment of startup funds, community-ownership of the entire enterprise, which created a common factor for want of success among the community, and the biodiversity of Madidi National Park. Although the ecotourism business is in operation, the communities realize the economic limit of ecotourism and are seeking other forms of income to supplement off tourism seasons (UNDP 2012e).

Location:

Madidi Protected Area, northern Bolivia

History:

The people of San José de Uchupiamonas were primarily agriculturalists and foragers (UNDP 2012e). The community-owned lands of the Tacana, Lecos, Apolo, and Uchupiamonas overlap with the Madidi Protected Area, and are now defined as Tierra Comunitaria de Origen (TCO) (UNDP 2012e). All of these ancestral lands are owned by their respective communities (UNDP 2012e).

Conservation:

The Madidi Protected Area is sectioned into two main parts: Madidi National Park and the Integrated Forest Management Natural Area (UNDP 2012e). It is within the Integrated Forest Management Natural Area that sustainable development and agricultural practices are allowed. In the Tierra Comunitaria de Origen de San José de Uchupiamonas, the local community designated 10,000 hectares of forest specifically for ecotourism, where hunting and forest extraction are prohibited (UNDP 2012e).

Accommodation:

The lodge has 30 beds, a new sanitation system, three canoes for transport to the lodge, and a dining hall (Stronza and Gordillo 2008; UNDP 2012e).

Accessibility:

The village is approximately 30 min from the actual lodge,

Challenges Faced:

In the past few years, reports of oil surveys have been reported in the Tierra Comunitaria de Origen de San José de Uchupiamonas (UNDP 2012e). The local community will need to partner with different organizations to effectively fight off the encroachment of big oil within their area (UNDP 2012e).

Stakeholders:

Inter-American Development Bank – provided startup costs for the enterprise
Conservation International – provided grant for ongoing support in training
San José de Uchupiamonas – local population that owns and manages the enterprise

APPENDIX R

Characteristics of Enterprises – CS 18

Case Study #18 – Batu Puteh Community Ecotourism Cooperative

This case study provides an excellent example of a true community-based conservation initiative. Environmental conservation became an ultimate goal of the MESCOT (Model Ecologically Sustainable Community Conservation and Tourism) initiative, and it later developed into a method of income to support local livelihoods as well as support the community's conservation initiatives (UNDP 2012i). The MESCOT initiative also utilizes tourists as volunteers to help with the conservation initiatives, where over 300 volunteers since 2012 have participated in areas of silviculture and fresh water restoration (UNDP 2012i).

The communities have an excellent organizational structure, and drive, when conceptualizing new income generating projects. Currently, the organizations developed are the Miso Walai Homestay Program, Wayon Toku Nature Guide Association, Mayo do Talud Boat Service, Tulun Tokou Handicrafts, and MESCOT Culture Group (Razzaq, et al. 2012; UNDP 2012i). It is observed that direct community involvement attributes to the success of this ecotourism initiative and its conservation components (Razzaq, et al. 2012; UNDP 2012i). However, it was the provision of training before implementing any ecotourism initiatives, especially with the homestay program, that added the longevity factor to the ecotourism projects (Razzaq, et al. 2012). It also helped that the main chairperson overseeing the homestay project was a college educated man from the community of Batu Puteh (Razzaq, et al. 2012).

Location:

Sabah State, Kinabatangan District, Malaysia

History:

The Lower Kinabatangan area was subjected to severe deforestation in the 1960s to the extent that local populations had no choice but to partake in some of the illegal logging activity to create some sort of income for their families, as they had previously relied on the forest for sources of income (UNDP 2012i). It was in 1996 that the Model Ecologically Sustainable Community Conservation and Tourism (MESCOT) initiative was developed within the Batu Puteh community, composing of the Mengaris, Perpaduan, Paris, Singga Mata, and Batu Puteh proper villages (UNDP 2012i).

At first, ecotourism was the primary objective, but after a devastating forest fire in 1998, MESCOT turned to forest, specifically wetland, rehabilitation and received support from the Sabah Forestry Department in creating plans for monitoring, silviculture, and tree planting (UNDP 2012i). In 2002 a new organization, KOPEL (Batu Puteh Community Ecotourism Co-operative) was created

specifically to develop a community-wide ecotourism initiative, composed of all five villages (UNDP 2012i).

Conservation:

The main conservation initiatives headed by MESCOT are to conserve an unbroken forest canopy of approximately 1,000 hectares and to remove an invasive plant species from the Kinabatangan water ecosystems, where the majority of fishing is done (UNDP 2012i).

MESCOT has, in the past 14 years, planted over 100,000 fruit and non-fruit bearing trees in the floodplain to regenerate the forest (UNDP 2012i). These trees are grown in a nursery and planted in four different floodplains within the community (UNDP 2012i).

The fresh water project is focused on removing a non-endemic species of waterweed called *Salvinia molesta*, which suffocates the water habitat and turns the area into a muddy lagoon (UNDP 2012i). They now use the extracted weed as fertilizer for their silviculture and reforestation initiatives (UNDP 2012i).

Accommodation:

The enterprise utilizes a campground, Tungog Rainforest Eco Camp, as well as some nearby mini camps (UNDP 2012i).

Accessibility:

The area was located on a main road that was, and to some degree still is, used for logging.

Challenges Faced:

Pressures from oil and timber companies are still present in the area (Razzaq, et al. 2012)

Stakeholders:

World Wildlife Foundation (WWF) – sponsored community with tourism, management, and fundraising experts

WWF – Norway – provided initial funds for pilot project

Ministry of Tourism Culture and Environment – main governmental agency involved with the project, helped with creating the homestay program, registration, and participate on the State Homestay Development Committee
Sabah Forestry Department – provided office space and electronic equipment and helped with reforestation initiatives

Land Empowerment Animals People (LEAP) – NGO that provides sources for more external funding of the projects, creates workshops

Shell Sabah Petroleum – gave a seed grant to the community for the eco camp site and four tourism buildings

Alexander Abraham Foundation- main sponsor for the wetland development program

Arcus Foundation – helped with funding for the eco-camp sites

Adventure Tour Companies – tourism companies who advertise the area

APPENDIX S

Characteristics of Enterprises – CS 19

Case Study #19 – Velondriake Ecotourism

This enterprise started as a conservation initiative that now is starting to utilize ecotourism as an income generating mechanism (UNDP 2012l). The entire project is centered around biodiversity preservation, local livelihood enhancement, and preservation of the Vezo culture (UNDP 2012l).

The protected area that the ecotourism activity is within was not governmentally established at first, but it is backed local laws called dina, which hold just as much if not more legal merit to the local populations (UNDP 2012l). Dina are local codes of conduct and are deeply rooted in Vezo culture (UNDP 2012l). However, in 1996 the Malagasy state recognized dina law through the pass of the GELOSE legislation (Gestion Locale Securise – Secured Local Management), which gives managerial power to community associations and the environmental laws they develop (UNDP 2012l). After the trial run, the closure areas are now backed with national legislation (UNDP 2012l).

According to UNDP (2012l), a major success factor was the cooperation of the local populations and overall recognition that conservation was a necessity. The project has started some replication projects along other coastal areas in Madagascar (UNDP 2012l).

Location:

Velondriake Region, SW Madagascar

History:

The initiative started as an octopus conservation initiative, where a temporary no-hunting zone was established on the barrier island Nosy Fasy off shore to Andavadoaka (UNDP 2012l). The no-hunting area had such a success in increasing the amount of marine life in the area that it was implemented in other communities in the Velondriake area, and a permanent locally-managed marine area was established, which was the first in Madagascar (UNDP 2012l). The no-take zones allow the octopus populations to regenerate, but it also allows the marine life to grow in mass, which leads to increased amounts of return when the no-take zone is lifted and fishing can take place (UNDP 2012l).

Conservation:

Many of the villages within the Velondriake area now participate in a few different marine conservation initiatives: temporary octopus reserves, permanent fish reserves, and permanent and temporary mangrove reserves (UNDP 2012l). The area now utilizes six permanent no-take zones along the reefs, three mangrove conservation areas, and three baobab tree conservation areas protected by the Velondriake Locally-Managed Marine Area (UNDP 2012l). In 2010, the

Velondriake conservation areas became recognized by the Malagasy government and fall under the Madagascan System of Protected Areas (UNDP 2012l).

The NGO Blue Ventures has been pivotal in the conservation developments of this enterprise. Through an off-shoot not-for-profit company, Blue Ventures Carbon Offset (BVCO), the community members are receiving solar powered stoves to reduce carbon emissions from burning wood, especially as more ecotourists visit the area (UNDP 2012l). Wood burning stoves caused the majority of deforestation along this coastal area, but with the new stoves it has significantly reduced deforestation (UNDP 2012l).

Velondriake is also involved in sustainable aquaculture, where sea cucumbers and seaweed are raised in enclosed netting areas and then sold (UNDP 2012l). This practice reduces the amount of direct marine extraction while also providing an opportunity for more reef to regenerate in the nursery areas (UNDP 2012l).

Accommodations:

There are local and private lodges in the area, such as Coco Beach Hotel, Laguna Beach Resort, and Manga Lodge Bungalows (Koopman 2008).

Accessibility:

There are no paved roads to this area and no public transportation system, which can make transport to the area difficult. Locals typically travel the coastal villages by outrigger pirogue canoes (Koopman 2008). There are some motor transports but they are said to be unreliable (Koopman 2008).

Challenges Faced:

The main issues are in the form of sustainability of scholarships and other indirect benefits that are directed by NGO Blue Ventures (UNDP 2012l).

Stakeholders:

Blue Ventures – NGO that helped develop the marine conservation initiatives, stated as a crucial factor to the success of the enterprise as a whole

Copefrito – partners with the fishermen of Velondriake in purchasing octopus, adheres to dina laws during no extraction times

Wildlife Conservation Society – helped establish the no-take zones in Velondriake, help coordinate surveys to track the turtle population

University of Tolaria and ReCoMaP (Regional Coastal Management Programme for the Indian Ocean countries) – funded Velondriake's first octopus stock valuation

Madagascar National Parks – helping to develop surveys of spider tortoises

University of Antananarivo – helping to develop surveys of spider tortoises

Rare Conservation – funded the social marketing campaign Vezo Aho, helped fund the masters degree for a local man at Georgetown University

Institut Halieuteque et des Sciences Marines – Madagascar's national marine institute – helped implement the no-take zones

United Nations Development Fund – gave financial and technical assistance to support Population, Health, and Environment Programme

The United Nations Population Fund (UNFPA) – gave financial and technical assistance to support Population, Health, and Environment Programme

MacArthur Foundation – gave financial and technical assistance to support Population, Health, and Environment Programme

Population Services International – gave financial and technical assistance to support Population, Health, and Environment Programme

Marie Stopes International – gave financial and technical assistance to support Population, Health, and Environment Programme

The Royal Norwegian Society for Development – NGO helping to develop sustainable agriculture in Velondriake

APPENDIX T

Characteristics of Enterprises – CS 20

Case Study #20 – Mesomagur Ecotourism

This case study provides an example of a local population expanding on an already established, state managed, national park and ecotourism enterprise. It was the vision of one man from Mesomagur who wanted to revive a traditional bamboo orchestra in the village to create a unique attraction for ecotourists visiting the nearby national park (Bini, et al. 2000; Jesse 2006). Conservation International provided assistance in developing an ecotourism plan with the community late in the 1990s (Appiah-Opoku 2011). The community utilizes their traditional bamboo orchestra and, with permission from the park authorities, they created a trail leading to one of the largest trees in the national park (Appiah-Opoku 2011).

Conservation International provided the community members with training so they could develop village committees in order to ensure longevity of the ecotourism enterprise (Appiah-Opoku 2011). Funds from the Mesomagur ecotourism enterprise have helped build an elementary school, health facility, and a guest house located within the community so that ecotourists can stay there and see more of the local customs of the community (Appiah-Opoku 2011).

Involvement exclusively by women is from food preparation for those who stay at the guest house (Jesse 2006). The women in the community developed their own association specifically for organization of food preparation for the ecotourism enterprise (Jesse 2006).

Location:

Assin South District, Ghana, Africa

History:

Kakum National Park is the main attraction for this ecotourism enterprise. It was established in 1989, and its primary purpose is to serve as income generator for larger scale regional economic development (Appiah-Opoku 2011). The Ghana Wildlife Division – Forestry Division manages the park, and with the help of Conservation International the Ghana Heritage and Conservation Trust (GHCT) was established to secure funding for the longevity of the park (Appiah-Opoku 2011). Project implemented by the GHCT have been a bottled water plant and gift shop/restaurant for visitors (Appiah-Opoku 2011).

Conservation International provided opportunities for income development within communities surrounding the national park, such as beekeeping, woodcarving, and raising of grass-cutters and snails, but these initiatives have not been successful because of the foreign nature of the trades (Appiah-Opoku 2011).

Of the 26 communities involved in alternative income generating activity, only Mesomagur has indicated positive economic development because of their community-based ecotourism initiative (Appiah-Opoku 2011). Cape Coast is the primary economic beneficiary of the national park's ecotourism initiative, where several hostels, hotels, lodges, and tourism operators have sprung up in the city (Appiah-Opoku 2011).

Conservation:

All of the villages, as well as Mesomagur, relied on the forest for food, medicines, and income, but now access is restricted and any violation is subject to fines or short imprisonment (Appiah-Opoku 2011). Although the biodiversity of the area is free to flourish, the livelihoods of the surrounding villages is stunted and sparse efforts have been made to supplement the negative consequences of forest resource restriction (Appiah-Opoku 2011). One example comes from the increased elephant population, where the elephants have reportedly raided and destroyed crops in some towns, making food and income generation more difficult for community members (Appiah-Opoku 2011).

Accommodation:

Within Mesomagur, there is a four-room guesthouse, furnished with 2 beds each with mosquito nets, where ecotourists can stay (Jesse 2006). The guesthouse also has bathrooms and showers (Jesse 2006).

Accessibility:

The village is accessible by vehicle via a dirt road. There is public and private car transportation from nearby towns to Mesomagur (Jesse 2006).

Challenges:

The greatest challenge was the restriction of forest resources with the development of the national park, but the community members or Mesomagur have combated such restriction with their own version of ecotourism, supplemented and advertised by the larger ecotourism initiative from Kakum National Park (Appiah-Opoku 2011).

Stakeholders:

Conservation International – assisted with development of the ecotourism plan, provided funding, provided training

Kakum National Park Authorities – allowed for trail to be made to one of the tallest trees in the forest to supplement Mesomagur's ecotourism business

APPENDIX U

Characteristics of Enterprises – CS 21

Case Study #21 – Nguna-Pele Marine and Land Protected Area Network

The conservation and development of the Nguna-Pele area of the Republic of Vanuatu is dynamic. The project started as a conservation initiative that utilizes local governance law, tabu, to reinforce the policing of the conservation areas, and later developed a turtle monitoring program that developed into an ecotourism attraction (Techera 2013; UNDP 2012k). Development of the turtle conservation project is based on a local, cultural practice of catching turtles, but instead of catching for consumption they catch the turtles for conservation purposes – tagging and keeping track of the turtle population numbers (UNDP 2012k). The villages on these two islands already have a consciousness of the importance of the reef, as they acknowledge the decline of various marine species, so they took action to combat the unsustainable practices.

The two island communities of Nguna and Pele have a history of cooperation (UNDP 2012k). They not only share common lingual dialect, but also practice similar cultural phenomenon, such as intermarriages to secure a strong connection between the two islands (UNDP 2012k). The Nguna-Pele region is known to consist of male dominated societies, but since the development of the conservation areas and social development projects, women are gaining more recognition and equality through active participation in conservation project management and in leadership positions within the MLPA (Nguna-Pele Marine and Land Protected Area) organizational structures (UNDP 2012k).

The villages of Nguna and Pele already had governmental structures, but the MLPA created its own democratically elected system of government, the Management Committee, to effectively manage the conservation area and development projects (UNDP 2012k). In this way, the entire MLPA and all of its projects and land are completely owned and managed by the local populations. Income sources are multiple and do not come from lodging or cooking as much as the turtle conservation and sponsorship program, where tourists can pay to sponsor a turtle caught by a local fisherman (UNDP 2012k). The funds are then distributed to the actual hunter, the conservation committee, and MLPA organization (UNDP 2012k).

Location:

Islands of Nguna and Pele, Shefa Province, Vanuatu

History:

These two islands already had a governmental system, where a chief, chosen on the basis of heredity, rules over each village and is advised by lower chiefs (UNDP 2012k). The land ownership in all of the Republic of Vanuatu is based on national constitution of customary landowners, but the landowners are not individuals – but families (UNDP 2012k). It is on the basis of an individual's membership to his/her community that grants them access to land when they do

not have family entitlement (UNDP 2012k). The coral reefs, however, are not owned by individual or family, but are open to public use (UNDP 2012k). The communities on both of the islands do not exclusively make a living off of the marine life – they practice opportunistic fishing (UNDP 2012k).

Conservation:

Before the actual large-scale conservation initiative, local governments within the villages in both islands would enforce conservation of the reefs with oversight from the national government of Vanuatu (UNDP 2012k). The village chiefs, by defacto, are charged with conservation of the reefs. If a family or individual wish to do commercial fishing, or other large scale fishing, they must have permission from the village chief and village council (UNDP 2012k). It also is the role of the chief to allow or prohibit the use of the village reefs by outsiders (UNDP 2012k).

It was in the 1990s that the Vanuatu Fisheries Department started collaborating with the village communities of the Nguna-Pele area to secure permanent conservation areas on the reefs (UNDP 2012k). With the help of Vanuatu based NGO Wan Smolbag Theater group, a turtle monitor program developed to engage the local communities of Nguna-Pele in turtle conservation, which resulted in a ten year ban on turtle harvesting for the entire Nguna-Pele area (UNDP 2012k). In 2011, the Nguna-Pele Marine and Land Protected Area (MLPA) was established, which includes community tabu resource reserved areas of sixteen communities located on both Nguna and Pele (UNDP 2012k).

The role of conservation actually fell upon the hereditary village chief and the village council. The development into larger scale conservation is very unique, as it is based on local, cultural laws called ‘tabu’, which are times of harvesting that are restricted on a weekly to monthly basis, sometimes venturing into an indefinite time of prohibition (Techera 2013; UNDP 2012k). The decisions about the length of the prohibitory periods are based on local economic or social, even cultural, processes within the villages (UNDP 2012k). The regrowth/conservation areas are small, but combined they now cover over 3,000 hectares of coral reef, lagoon, and terrestrial areas (UNDP 2012k). The areas also utilize three main regrowth/conservation patterns consistently across villages on both islands: permanent (indefinite closure), rotational (for regrowth, no harvesting during closure), and periodical (allows for controlled harvest all season) (UNDP 2012k).

Actual conservation projects include breeding of trochus and giant clams and tagging of sea turtles (UNDP 2012k). There is already evident success of the sea turtle project, as five or less turtles are consumed on the island per year, due to continuity of cultural practice of catching and eating turtles in reverence for a deceased village chief or elder (UNDP 2012k; WST 2010).

Accommodation:

N/A

Accessibility:

The area is accessible by boat from the larger island of Efate and Sailaway Cruises (UNDP 2012k)

Challenges Faced:

Some challenges stem from how land is owned. There have been many disputes over land entitlement since the boundaries are not clear, as the communities are active in static, or fluctuating, settlement patterns (UNDP 2012k). There are also issues with infringement on the reserve areas that are not as close to the actual villages, but those who are caught in violation are subject to fines that go directly to the local government and dispersed to the community (UNDP 2012k).

Recognition of local laws is virtually nonexistent in the regional government of Vanuatu, which has proved to be a struggle when attempting to reinforce conservation laws and continue developing conservation initiatives (UNDP 2012k).

Stakeholders:**Local**

Wan Smolbag Theater Group – NGO that helped create the turtle conservation project and multiple health related workshops and awareness gatherings

Foundation for the People – NGO that helped with project management and conservation project implementation

Governmental

Environment and Fisheries Department – supporters of all development initiatives of the enterprise, provides technical assistance

International

U.S. Peace Corps Vanuatu – sends volunteers to help with development and conservation projects

Academic

James Cook University – helps with conservation awareness and monitoring

University of the South Pacific – research institute helping with reef assessments

Private

Sailaway Cruise – tourism operator that sends tourists to the islands

*more listed in UNDP 2012 document

APPENDIX V

Characteristics of Enterprises – CS 22

Case Study #22 – Tetepare

Tetepare is one of the few still uninhabited and unlogged islands in the world. (TDA 2012; UNDP 2013b). The Tetepare Descendant's Association (TDA) actively recognizes the importance of maintaining the biodiversity of Tetepare because of their strong cultural connection to the island, as it is where their ancestors lived (UNDP 2013b). To replace the sparse income offered to the community members for logging, the TDA established compensatory income that goes directly to the local populations for their participation in the conservation activities (UNDP 2013b).

The local populations involved in the TDA are employed as rangers for the protected areas and are employed in the ecotourism business as guides, cooks, transporters, and managers (UNDP 2013b). Gender equality is a large requirement for the TDA, where at least 40% of their stakeholder group, at the meetings, must be female, and at least three women need to be present on the Executive Committee (UNDP 2013b). Gender equality is also extended to the students, where scholarship recipients are equally male and female to offer equal opportunity for higher education (UNDP 2013b).

To maintain sustainability, the TDA established the scholarship program for students, as well as a Tetepare Endowment Fund to provide crucial funding for the continuation of the conservation projects (UNDP 2013b).

Location:

Tetepare, Western Province, Solomon Islands

History:

The development of the Tetepare Descendant's Association started in 1995 with a few surrounding island village members, many of whom are landowners of the Tetepare Island (TDA 2012; UNDP 2013b). They created the Friends of Tetepare group to collectively stand against commercial logging on Tetepare (UNDP 2013b). In 2002, the Friends of Tetepare joined the Tetepare Traditional Landowners Association to create the Tetepare Descendants' Association (TDA 2012; UNDP 2013b). There are now over 3,000 members of the Tetepare Descendant's Association and is the largest landowner association in the Solomon Islands (UNDP 2013b).

Conservation:

The conservation initiatives secure the entire island of Tetepare, as well as 13 km of Marine Protected Area (permanent no extraction zone) spanning the length of the island (TDA 2012; UNDP 2013b). Interestingly, instead of creating regeneration projects, the TDA uses an avoidance policy for conservation, which is one of its greatest successes as the island remains of the few untouched (by

residence and development) islands in the world (UNDP 2013b). The Marine Protected Area serves as a fish nursery, where species are able to regenerate (TDA 2012; UNDP 2013b).

In order to compensate the local population for restricted marine extraction, the TDA placed Fish Aggregating Devices within boating distance from the shores (UNDP 2013b). These devices attract various fish eaten by the local populations and allows them to collect the fish without interfering with the marine conservation areas (UNDP 2013b).

Accommodation:

A single lodge is located on Tetepare and the maximum number of visitors is thirteen (UNDP 2013b). There are two Melanesian style huts with single and double beds (TDA 2012).

Accessibility:

The enterprise is accessible by boat. The amount of tourists is limited to thirteen any time, any day (UNDP 2013b). Traveling to the island at night is not advised, only during the daytime (TDA 2012)

Challenges Faced:

A challenge will always come from the pressure on the landowners by logging companies seeking to cut down trees on Tetepare (UNDP 2013b).

Stakeholders:

Solomon Islands Community Conservation Partnership – monetary donors to the projects

Conservation Agreement Fund – helped create and manage the regional Community Conservation Trust

Conservation International – granted endowment for Community Conservation Fund

WWF – assists TDA membership renewal in the Coral Triangle Initiative

Australian Volunteers International – funding

Conservation Ark - funding

Global Leadership Foundation - funding

Honeypot Foundation - funding

NZ Aid - funding

Solomon Islands National University - funding

Sustainable Forestry Conservation Project - funding

APPENDIX W

Characteristics of Enterprises – CS 23

Case Study #23 – Bunaken Ecotourism

This is a good case study that demonstrates a top-down approach that is slowly moving toward a bottom-up, co-management infrastructure. It will be difficult to transmit all responsibility directly to the local populations, as the regional government of North Sulawesi and national government of Indonesia are direct beneficiaries from the national park and all of its activities. The national park came first, and ecotourism was developed later to increase the longevity of the park and for local, regional, and national economic gain.

It was through the participatory zoning of Bunaken National Park that the local populations began to receive any sort of benefit from the government's conservation initiatives – a project headed by the Bunaken National Park Management Advisory Board (BNPMAB) (UNDP 2012d). Through participatory zoning, the local populations within the national park were able to have say in where the various zone boundaries were placed, which was especially important when zoning the areas in which they could still fish and farm (UNDP 2012d). Communication is a major factor for keeping the local populations informed and involved with the developing park, and it is achieved through a 36 station radio broadcasting system (UNDP 2012d). However, the local populations do not hold direct membership in the stakeholder group, nor do they have any ownership of the ecotourism enterprise.

The entrance fee system, initiated by the BNPMAB, is the main income-generating factor for all aspects of the park in terms of social development and environmental sustainability. 30% of the entrance fee income is put into a village conservation fund, one for each village, which supports various social development projects such as English classes and sanitation services (UNDP 2012d). The North Sulawesi Watersports Association (NSWA) is one organization that has is dedicated to employing as many of the local community members as possible as guides for diving, staff for the resort, or as boat captains (UNDP 2012d).

Location:

Bunaken National Park, North Sulawesi, Indonesia

History:

Bunaken National Park was established in 1991 by the Ministry of Forestry and the infrastructure was mainly top down. Through the beginning stages of the park there was significant environmental degradation from unsustainable fishing and mass tourism (Erdmann, et al. 2013; UNDP 2012d). Many of these unsustainable practices were due to low income in the local communities, and lack of communication between various stakeholders of the national park (UNDP 2012d; Wall 1999). In order to combat these environmental social issues, the Bunaken

National Park Management Advisory Board (BNPMAB) was created with the goal of creating a co-management system for the park that includes the government, local populations represented by the Bunaken Concerned Citizen's Forum, and private tourism operators (UNDP 2012d).

One initial project of the BNPMAB was to zone the park into nature recovery, utilization, and support zones based on the area's potential for economic and environmental benefit that also addressed the needs of the local population (Erdmann, et al. 2013; UNDP 2012d). There are three types of nature recovery zones that range from no human contact whatsoever, with fines and jail time applied to violators, and limited human contact due regrowth projects, research, and education (Erdmann, et al. 2013; UNDP 2012d). It is within the utilization zones that tourism is permitted (Erdmann, et al. 2013; UNDP 2012d). The support zones are specifically for local traditional forms of income generation, such as fishing and controlled pesticide agriculture, and for social development projects (Erdmann, et al. 2013; UNDP 2012d).

Conservation:

The patrol system, funded entirely by income from the entrance fee system, has increased the diversity and amount of live coral within the park by 11.3% (UNDP 2012d). The more destructive forms of fishing and agriculture have been eliminated from the park because of the 24 hour patrol system (UNDP 2012d).

At the more local level, various groups of community members have organized themselves into garbage cleaning squads to combat the littering problem in the tourism section of the park (UNDP 2012d). A group of women learned a new way to produce and use an alternate form of fuel – charcoal from discarded coconut shells (UNDP 2012d). The use of the discarded coconut shells actually reduces the reliance on wood from the forests as fuel (UNDP 2012d).

Accommodation:

There are multiple lodging options at Bunaken for single tourists to groups of twelve, and all types offer breakfast, lunch, and dinner (Bunaken.In 2012). All of the lodges are Minhasa style, which is a traditional Indonesian style of architecture (Bunaken.In 2012).

Accessibility:

The high accessibility of this enterprise is documented as a major success factor in terms of economic sustainability, but also a present hindrance in terms of environmental sustainability (UNDP 2012d).

Challenges Faced:

Even with the development of the ecotourism business, populations living on these islands make a living primarily from the natural resources (UNDP 2012d). Few are employed within the ecotourism business, where they make a living primarily off of the diverse marine life (UNDP 2012d). Consequently, the reliance

on marine life is beginning to prove problematic in terms of environmental sustainability (UNDP 2012d).

Stakeholders:

Bunaken National Park Office – presides authority over the park

Environmental Impact Control Department – coordinates environmental policy for the park

Environmental Impact Control Office (district) – lobbies national government for national park activities

Tourism Department North Sulawesi – governmental rep for tourism activity in the park

Concerned Citizen's Forum for Bunaken National Park – only representation of the local populations within the national park, advocates for their interests

Mando Environment Department – only Mando agency on the stakeholder board, advocates for environmental sustainability in the park

University of Sam Ratulani – representatives of scientific community on the stakeholder board

Ministry of Marine Affairs and Fisheries – resists outside licenses for fishing within the park's borders

Indonesian Forum for the Environment – local NGO that helps distribute funds to local communities equally

North Sulawesi Watersports Association (NSWA) – represents marine tourism and employs local communities in tourism

APPENDIX X

Characteristics of Enterprises – CS 24

Case Study #24 – Autonomous Worker’s Association of San Rafael, Tres Cruces, and Yurac Rumi (ASARATY)

In this case study, the conservation initiative came first, along with a goal of local economic gain. Ecotourism was another income source that alleviated some of the economic stresses on those communities within ASARATY. The official purchase of land was a major success factor with this enterprise as land titles allowed the association to conduct sustainable development activity within buffer zones of Sangay National Park (UNDP 2012c).

The association actively acknowledges the importance of multiple income sources, which is why they developed the alpaca clothing and handicraft marketing scheme as well as ecotourism (UNDP 2012c). One of the main initiatives for this association is to reduce the amount of emigration by the younger generations within the communities by providing them job opportunities (ecotourism and alpaca farming, mainly)(UNDP 2012c).

Location:

Chimborazo Province, Ecuador

History:

Sangay National Park was established in 1975, and due to the pressures of oil prospecting, population growth, and logging, it was appointed a World Heritage Site in 1983 (Baez 0; UNDP 2012c; WCMC 2005). It was with the help of Ecuadorian NGO Fundación Natura (Ecuadorian Foundation for the Protection and Conservation of Nature) that initial co-management of the park began, including local populations within and around the park buffer zones, and ended up being the basis for the creation of ASARATY (Autonomous Worker’s Association of San Rafael, Tres Cruces, and Yurac Rumi) (UNDP 2012c).

There are five communities (Guarguallá Chico, Guarguallá Grande, San Rafael, Tres Cruces, and Yurac Rumi) within ASARATY that comprise an estimated total of 400 people (Baez 0; UNDP 2012c). This association brought together a few different ethnic groups, each with different income generating practices, but with a common goal: to conserve their land (UNDP 2012c).

Conservation:

One of the main conservation initiatives carried out by ASARATY and Fundación Natura was the replacement of burning grassland and using it for cattle grazing, to alpaca farming, which allows for regrowth of the grasslands (UNDP 2012c). The local communities have sighted specific endangered animals in greater numbers in the less human occupied areas of the buffer zone (UNDP 2012c).

Accommodation:

Little is written about the accommodations for ecotourists, but it is mentioned that there are a few hostel/lodge areas that tourists can stay in (WCMC 2005).

Accessibility:

It is noted that the remoteness of the area contributes to its lack of presence in marketing literature on ecotourism (WCMC 2005).

Challenges Faced:

One of the main challenges acknowledged is the lack of governmental support and large-scale governmental recognition of the association's wishes to be involved in other conservation initiatives in the area (UNDP 2012c). There was also some mention of the slow development of the infrastructure of the communities (UNDP 2012c).

Stakeholders:

Fundación Natura – helped with training, development of co-management of land, helped develop the ASARATY

Corporation for the Promotion of Exports and Investments (Corporación de Promoción de Exportaciones e Inversiones – CORPEI) – supported a ASARATY women's association for management of clothing marketing

Chimborazo Polytechnic College (ESPOCH) – helps plan for tourism activities and helps determine herding capacity for the alpaca farming sustainability

Proyecto Páramo – technical surveying assistance and helped develop the Páramo Region's management plan for sustainable development

APPENDIX Y

Characteristics of Enterprises – CS 25

Case Study # 25 – Las Marias

This case study provides an example of a locally driven ecotourism enterprise that started with significant help from a competent NGO MAPAWI (Mosquitia Pawisa-Development of La Mosquitia) that truly advocated for a community-based, bottom up, participatory development strategy. An interesting success factor is the slow, gradual process of marketing, where MAPAWI essentially let the tourism operators do the marketing for them (Nielson 2001). The process was slow enough that the community members has time to adapt to the industry and develop the skills necessary (Nielson 2001). There were also multiple participatory planning workshops and meetings, which resulted in two new organizations within the community of Las Marias: Ecotourism Committee and United Women of Las Marias organization (Nielson 2001). Efforts by the Ecotourism committee received national attention, and the Honduran Institute of Tourism adheres to the guidelines for conduct of guides and tourists set up by the Tourism Committee (Nielson 2001). The community is very aware of the possibility that foreign culture can begin to replace their culture, which is why they limited the number of community members who could specialize in tourism (Nielson 2001). In this way, community members would not loose their knowledge of agriculture – their main food source (Nielson 2001). Although the ecotourism enterprise generates income, the people remain largely as agriculturalists (Nielson 2001).

In order to ensure equal distribution of funds, the Ecotourism Committee set up a system where all adult members of the community, no matter the gender, are capable of guiding tourists on a rotational basis (Nielson 2001). Funds obtained from the park entrance fee are given to projects for conservation and community development (Nielson 2001). Store vendors in the community report that, during the busy ecotourism times, their profits are significantly higher (Nielson 2001).

The United Women of Las Marias organization created their own business to sell handicrafts and local foods to the tourists, which added an alternative income source (Nielson 2001). Besides the economic enhancement, the older women were able to teach the younger women and girls how to create traditional handicrafts that were unknown to the younger generations – creating a resurgence of local craft culture (Nielson 2001). The women's organization is identified as one of the strongest organizations within the Las Marias community (Nielson 2001).

Location:

Within Rio Platano Man and Biosphere Reserve, 15 km from the coast of the Caribbean Sea, Honduras

History:

Residents of Las Marias are mainly Pech, who are some of the oldest native groups in Honduras (Nielson 2001). The residents of Las Marias generate income through slash and burn agriculture at the small scale level, as well as some hunting within their territory (Nielson 2001). During its infant stages, the ecotourism development in Las Marias, although accepted initially by the local population, created significant divisions within the village councils and between families (Nielson 2001). It was with the help of local NGO MOPAWI that the community of Las Marias began to develop more control of the conservation initiatives and equitable income distribution from ecotourism (Nielson 2001).

Conservation:

The development of committees such as the Ecotourism Committee is said to be the main force behind conservation efforts in Las Marias, where the committee is in charge of mitigating the effects of introducing tourists to the natural environment (Nielson 2001). The Ecotourism Committee also instigated the zoning process for the areas selected for regrowth, ecotourism, and agriculture/livestock (Nielson 2001).

Accommodation:

Lodging varies for this enterprise as it is composed of homestays, or lodging outside of Las Marias (Nielson 2001).

Accessibility:

The area is fairly isolated as it is in the middle of the reserve area (Nielson 2001). Although this can be seen as a hindrance, it is also a positive attribute as less people are able to get into the area at a single time, reducing the chance of developing mass tourism and further environmental damage (Nielson 2001).

Challenges Faced:

The infrastructural development in the cultural zone of the reserve is the largest challenge, where funds are scarce and loans are staking up (Nielson 2001). The other challenge is the marketing of the enterprise, where too much can lead to mass tourism, but too little can lead to economic pitfalls (which can turn into environmental loss through a resurgence of past agricultural habits) (Nielson 2001).

A challenge for environmental sustainability comes from the immergence of new technology, such as chainsaws and guns, to the local community which can end up putting pressure on the tree and game species within the reserve (Nielson 2001).

Stakeholders:

MOPAWI – local NGO that initiated the community-development project and assisted with micro loans and technical training

The Peace Corps – provided volunteers and PhD candidate Erik Neilson for extensive research in the area and documentation of the development of the enterprise

Local tourism operators – these are the main marketing power behind the ecotourism success

APPENDIX Z

Characteristics of Enterprises – CS 26

Case Study #26 – Pemuteran Bay Coral Protection Foundation

Tourism is not uncommon in Bali. Many communities have developed tourism for economic gain, allowing large lodges and resorts to be built around them and providing economic incentives, but ultimately deteriorating the natural environment (UNDP 2013a). The ecotourism initiatives of the Pemuteran Bay Coral Protection Foundation (PBCPF), or Yayasan Kerang Lestari Teluk Pemuteran, developed along the lines of sustainable use since its inception (UNDP 2013a). With the decline in coral reefs in 1998, because of extensive over fishing using explosives and cyanide, the community members have acknowledged the importance their marine environment has for the continuation of the surrounding marine species and the tourism activity that brings economic opportunity to the community (UNDP 2013a).

Although the ecotourism lodging is not entirely community-based or community managed, the population of Pemuteran directly benefit from the upsurge of tourists in the community, which was caused by their community managed marine area and all of the conservation projects associated with it (UNDP 2013a). The dynamics of the reliance that the ecotourism businesses in Pemuteran have on the conservation initiatives of PBCPF in essence gives a large bit of control to the local population. The community members of PBCPF have control over the conservation initiatives, which have also become main ecotourism attractions, so the foundation is receiving funds to support the conservation projects while also providing jobs to the local populations directly associated with tourism. For example, tourism operators will pay local fisherman to use their areas in exchange for the fisherman keeping the moorings safe for the divers (Bottema and Rush 2012). Since job placement in tourism related jobs largely requires a higher level of education, the younger generations within the community have discovered a new gumption for higher education because of its direct relationship to higher probability of job placement (UNDP 2013a).

Women in Pemuteran were largely marginalized, where their duties were largely domestic – caring for the children, gutting and dressing fish, food preparation – and could not hold power over finances (UNDP 2013a). With the development of the PBCPF and the flourishing tourism in the area, women are able to receive training outside cultural norms for women, in fact it is stated that over half of the community employees in the tourism sector of Pemuteran are women (UNDP 2013a).

Location:

Pemuteran, West Bali, Indonesia

History:

Already one of the poorest villages in Bali, unable to grow rice because of the dry heat, the community of Pemuteran turned to ecotourism for economic gain

(UNDP 2013a). It was with the economic decline in 1998 that put significant pressure on coastal communities to rely on fishing for livelihood and food, ultimately decimating large spans of coral reef and the tourism attractions in the affected areas (UNDP 2013a). PBCPF wanted to combat the ecological decline through sustainable, community-based initiatives, which led to the creation of a community-based marine protection and coral restoration project (UNDP 2013a). The beginnings of the PBCPF were based on Hindu traditional values that man and nature should live in harmony (UNDP 2013a).

Conservation:

The PBCPF created its own marine protected area (MPA) based on local Hindu ethics of harmonious human-environment interaction (UNDP 2013a). The laws surrounding the MPA are not only locally based, but these laws are recognized by the national government, which made the process of establishing the MPA much easier (UNDP 2013a). The community members organized a local policing system, *pecalang laut*, which patrols the area and issues warnings for first time violations and seizure of boating equipment plus fines for any further violation (UNDP 2013a). The MPA not only regenerates the species for conservation, but, coupled with the restriction of fishing with explosives and cyanide, the MPA has increased catches for the fishermen (UNDP 2013a).

A notable conservation effort by the PBCPF is the installation of 70 Biorock reefs within the marine community protected area (UNDP 2013a). The Biorock reefs, which are steel frames that have a slight electrical charge, helps facilitate growth of corals and other marine life (Bottema and Rush 2012; UNDP 2013a). This project was started with help from Global Coral Reef Alliance (GCRA) and funded from two local hotels, donations from ecotourists, and portions of income from local businesses (UNDP 2013a). The conservation effort has proved fruitful, as the reefs continue to grow and house numerous marine life (Bottema and Rush 2012; UNDP 2013a).

Another conservation initiative headed by PBCPF is the recycling program to reduce the pollution of the marine area from unsustainable disposal of waste (UNDP 2013a). They also plant vetiver grass along the shorelines to reduce the amount of soil erosion (UNDP 2013a).

Accommodation:

There are several hotels in Pemuteran for tourists to stay in (UNDP 2013a). There is also the option of a homestay, where tourists can stay with a local family and provide them with direct income due to ecotourism (UNDP 2013a).

Accessibility:

The area is highly accessible because of the already developed tourism infrastructure in Bali (UNDP 2013a).

Challenges Faced:

The economic downturn in 1998 was the most significant trial for all marine based tourism in the area (UNDP 2013a). This can be seen as a future threat, should economic downturn be present again, fishermen may resort to overfishing, which will again destroy coral reef and hinder the ecotourism activity. PBCPF's governmental system is not fully developed, which could develop into a social problem should there be conflicts of opinion on how income is distributed, how conservation areas are managed, or how to deal with tourism operators attempting to benefit from the area without paying (UNDP 2013a).

Stakeholders:

Global Coral Reef Alliance (GCRA) – a non-profit organization that helped facilitate the Biorock project for coral reef regeneration and provided much needed training in tourism and conservation to the local population

Local tourism operators and hotels – these have been some of the initial supporters of the conservation efforts, and also employers of the local population

APPENDIX AA

Characteristics of Enterprises – CS 27

Case Study #27 – Raista Ecotourism

This case study is a good example of a community-based approach that went wrong, but was able to recover. The initial butterfly farm project worked very well, but after the initial coordinator left and delegated the farm to a man who did not own the land the farm was on, as it belonged to his sister, land title issues arose within the family and they became divided (Bosma and Dorren 2001). MOPAWI (Mosquitia Pawisa-Development of La Mosquitia), the local NGO that was there during the development stages of the enterprise, had difficulty reconciling the family (Bosma and Dorren 2001). The root reasons for the dispute within the family are unknown (Bosma and Dorren 2001), but the community had a weak governmental system and many community members wished to rely on ecotourism alone (Nielson 2001), so the pressure to expand the ecotourism infrastructure may have been a culprit. However, because of the resilience of the man who was put in charge of the farm, a new one was created (Bosma and Dorren 2001), as well as a new house/hostel for tourists to stay in (REDTURS 2007).

This enterprise provides a great example of how important community-based approaches are to longevity of an ecotourism enterprise. If the local population(s) is invested enough, when they have made the decisions and put work into creating the enterprise, even if there are big speed bumps, they are able to recover because of that sense of ownership and dedication. Local NGO MOPAWI should receive some of the recognition for encouraging the inhabitants of Raista to create their own type of ecotourism from the beginning.

Location:

Raista, Rio Platano Biosphere Reserve, Honduras

History:

The community of Raista is 100% Miskito (Nielson 2001). Ecotourism was present on a small scale in Raista, where a couple families would allow tourists to stay in their homes while visiting the reserve (Nielson 2001). The community then created a butterfly farm in hopes of selling the pupae to international buyers. But, they realized the potential for a secondary ecotourism attraction the butterfly farm offered, which in turn became part of their ecotourism infrastructure (Nielson 2001). This butterfly farm is the first in Honduras and is now a major ecotourism attraction for the Rio Platano Biosphere Reserve (UNDP 2012a).

Conservation:

Conservation efforts were not the ultimate purpose of the ecotourism development, it was mainly for economic gain through diverse income sources (Nielson 2001). However, the butterfly farm method serves as a method of education for tourists and the local community about plant and insect species in

the area (Nielson 2001). The community is also said to be one of the cleanest, which is a direct result of the community listening to what the tourists mentioned about what they wanted to see – a clean area, to visually see environmental sensitivity at the local level (Nielson 2001).

Accommodation:

There is a newly built eight-bedroom house, equipped with mosquito nets, overlooking Laguna de Ebano (REDTURS 2007).

Accessibility:

Accessibility is high for this village, as it is a gateway to the actual reserve by boat (Nielson 2001). The village is located on a small strip of land that separates the Caribbean Sea and the Laguna de Ebano (aka Ibans Lagoon) (Nielson 2001).

Challenges Faced:

The community, based on available documentation, is still without solid, local governmental structure (Nielson 2001).

Stakeholders:

MOPAWI – local NGO that initiated the community-development project and assisted with micro loans and technical training

The Peace Corps – provided volunteers and PhD candidate Erik Neilson for extensive research in the area and documentation of the development of the enterprise

APPENDIX BB

Characteristics of Enterprises – CS 28

Case Study #28 – Community Tours Sian Ka'an

This case study examines a locally-based alliance of Mayan tourism operators, Community Tours Sian Ka'an (CTSK), who have the common goal of generating direct and indirect benefit to the communities of Punta Allen and Muyil within World Heritage Site Sian Ka'an Biosphere Reserve (Brenner, et al. 2008; UNDP 2012f). Although the local populations within the reserve do not hold exclusive ownership or management positions within the ecotourism infrastructure, direct employment is assured through training in guiding and entrepreneurial efforts in handicraft manufacture and restaurants (UNDP 2012f).

Most of the ecotourism activities CTSK is involved with are based on education, be it about conservation, plants, animals, or ancient Mayan culture (UNDP 2012f). The organization hired the first female guide in the history of the reserve, and also facilitated the development of a women's group, Ulumil Beh, that procures dragon fruit jam (UNDP 2012f). The creation of local employment has also reduced the amount of locals who leave their communities in search of better employment (UNDP 2012f).

In order to reduce competition between tourism companies, CTSK brought various community-based tourism operators together in a joint business model (UNDP 2012f). With this model, prices for visitation are streamlined and competition based on price is reduced (UNDP 2012f).

Location:

Tulum, Mexico

History:

There was tourism activity within the Sian Ka'an Biosphere Reserve, but the local populations living within the reserve were not receiving benefits from its activity (UNDP 2012f). In order to create economic incentives to the locals, as well as increase conservation initiatives, CTSK developed a community-based guiding service for both communities to provide direct employment (UNDP 2012f). The ultimate goal is to change how current tourism operators offer their services, as well as to reduce the amount of tourists in the reserve at any given time (UNDP 2012f).

Conservation:

Sian Ka'an Biosphere Reserve is zone into three parts: core, buffer, and transition (SKCT 2011). The ecotourism activity is within the transition area (SKCT 2011). CTSK helped create a garden mainly composed of plants used in traditional medicines (UNDP 2012f). This garden not only facilitates the longevity of the plant species within the reserve, it also provides an opportunity for education to

the tourists and the children in the community to learn about traditional medicines (UNDP 2012f).

Accommodation:

There are various lodges and hostels people can stay in, which are usually offered through the tourism operator (Brenner, et al. 2008)

Accessibility:

Highly accessible due to the knowledge of the reserve and tourism developments all around (Brenner, et al. 2008).

Challenges Faced:

Acknowledged challenges are from tourism operators outside of the co-op created by CTSK, where they are able to afford better advertisement because of their ability to access greater amounts of funding (UNDP 2012f).

Threats to marine conservation also stem from the competition, especially from Riviera Maya region, which is a highly developed mass tourism area close to the reserve (Brenner, et al. 2008). The high end tourism threatens the marine and terrestrial species due to rapid urbanization of the coast (Brenner, et al. 2008).

Stakeholders:

Expedia – partners with the United Nations Foundation in defining travel rates

Sian Ka'an Biosphere Reserve Management – assists in resource control

RARE – provided some technical assistance in training for local infrastructure development

Mexican Government – provided permits for development

APPENDIX CC

Characteristics of Enterprises – CS 29
Economic and Conservation – success
Social – failed attempt

Case Study #29 – Baghmara Community Forest User Group (BCFUG)

This is a good example of a comprehensive case study that clearly defines crucial aspects of an ecotourism site for the purpose of rapid assessment. This case study can be viewed as successful and unsuccessful. There are significant environmental and economic success, however the social sustainability is severely lacking due to poor management and poor training of the local populations (HBP 2013). The BCFUG is identified as having three main components needed for success in social sustainability: the presence of a village committee, the willingness of the local populations to conserve the forest, and the capability of the local populations to sustain an ecotourism enterprise (because many of the locals are migrants, as are most small, local populations in Nepal) (HBP 2013).

Benefits from the BCFUG are not so much given in money, but rather specific community development and conservation projects based on the needs of the communities and the needs for conservation (HBP 2013). 30%-50% of the total income from the BCF goes directly to conservation, the rest goes to many unsuccessful development projects, such as: building of toilets, training to men and women on sustainable bee farming and motorbike repair, expansion of schools, payment of children school fees, a loan system, healthcare, and establishment of electricity in some areas (HBP 2013). Even though the idea behind these benefits are good, the communities have expressed regret and discomfort that their standard of living has not improved (HBP 2013). One main example comes from the village of Mushar, which is the poorest of the BCFUG (HBP 2013). Since agriculture in the community is not successful due to its location, the BCF established a fishery so the community could have some sort of income; however the fishery was not created with the consultation of the Mushar, and it is still without fish (HBP 2013).

The management of the BCFUG had not provided an audit for 2009-2013, but expressed substantial increases in income (HBP 2013). However, discussions with the community members, outside the management committee, have not seen the money nor do the projects started by the management committee reflect increased income (HBP 2013). Lack of management, rather, lack of training in management, is what has contributed to the lack of social sustainability in this enterprise.

What is important to take away from this case study is that the initiatives of the community based political system in creating this enterprise started as good ideas, but were not able to progress due to lack of direction and experience in management, finance, and democratic politics. This example only stresses the importance of *gradual* complete community management in the developing stages of the enterprise, as well as the importance of consistent communication with whomever the local populations are

receiving help from, be it financial or in-kind, so that issues can be taken care of before they become unsustainable.

Location:

Bachhauli VDC (village development committee), Sauraha District, Nepal
Borders Royal Chitwan National Park

History:

The BCFUG was established in 1994 with help from the Biodiversity Conservation Network, King Hahendra Trust for Nature Conservation, and WWF – USA (HBP 2013; Khatri 1998). The establishment of this community forest reserve was based on severe deforestation and overgrazing in the Baghmara forest (HBP 2013). A reforestation project began in 1989, and although it faced infringement in the form of attempted land seizures, the reforestation project succeeded and by the end of the year 81,000 tree saplings were planted (Buckley 2003; HBP 2013).

There is no real advertisement or marketing done by the BCFUG, and most of its tourists hear about the area through the hotels they stay at (HBP 2013).

Conservation:

The reforestation efforts, which utilizes native tree species, that started in 1998 have been largely successful, as multiple fauna species are continuously spotted within the BCF (Baghmara Community Forest) (HBP 2013; Khatri 1998). The forest regrowth is almost to the extent that it was before the severe deforestation, (HBP 2013). However, since the reforestation project planted multiple tree species, the grasslands that many faunal species depended on are disappearing, which invokes the animal species to search for grazing areas in local farms (HBP 2013).

The presence of elephants in the BCF will eventually erode the soils and destroy the grasses to greater extent if efficient management of the elephant walks is not established – which is why the authorities of the Chitwan National Park do not allow elephant walks in the national park anymore (HBP 2013; Khatri 1998).

In order to reduce reliance on wood for fires, the community forest committee initialized the creation of biogas plants, with help from Himalayan based biogas company Ekikrit Urja, in approximately 400 of the households in the communities of the BCFUG (HBP 2013).

There are significant amounts of medicinal plant species in the BCF, so it may be of interest to start some sort of medicinal garden, which would provide another attraction to the area and the community could charge tourists directly giving the community members a higher chance of attaining monetary income.

Accommodation:

Hotels are located around the BCF, but not within (HBP 2013). Although many of the hotels were built because of the success of the BCF as a tourist attraction, none of the hotels will hire members of the communities because they feel they are unruly (HBP 2013). Hotel management does not, however, have any problem with exploiting the culture of the communities, as some members are paid to perform traditional dances at the hotels but hotel managers give them little for it and charge very high fees to see the dances (HBP 2013). As stated by the authors of this case study, future goal may be to set up the dances within the communities so that direct income to the communities is generated (HBP 2013).

Accessibility:

Accessibility is high for this enterprise because of the proximity to Chitwan National Park (HBP 2013). There are attractions not allowed in Chitwan National Park, like elephant rides, because of the environmental damage it can do by making trails; however, private tourism companies can provide elephant rides through the BCF, which has helped the enterprise in gaining more tourist attention as elephant rides are a must while in the area (HBP 2013).

Challenges Faced:

Some main challenges have been due to lack of a solid organizational structure within the BCFUG. An example is the unsuccessful executive committee, composed entirely of democratically elected representatives of the communities in the BCFUG (HBP 2013). The original political structure of the executive committee had a chairman, vice chairman, secretary, one male representative and four female representatives of the communities (HBP 2013). The committee dissolved because of differences in interests within the politics of the committee (HBP 2013). However, a new democratically elected committee formed composed of a representative of all four different political parties, and each representative takes a turn as head of the general assembly meetings (HBP 2013). The committee is supposed to meet every year with the Chitwan National Reserve authorities, but they have not done so consistently due to lack of management of the committee (HBP 2013).

Communication from the governmental body of BCFUG, which is still composed of members of the local population, to the other community members has created distrust within the community and from the Chitwan National Park authorities (HBP 2013). This hindrance is due to lack of management of the user group and lack of enforced accountability by the previous initiators of the community forest (HBP 2013).

Already hotel management and their tourism partners have realized the unorganized fashion of the BCFUG, with its social and, potentially, environmental failings, and are starting to take tourists to other nearby locations (HBP 2013).

Stakeholders:

Chitwan National Park - provided some support in management and finance accountability

Biodiversity Conservation Network – provided some monetary support for the creation of the community forest

WWF USA – provided some monetary support for the creation of the community forest

Department of National Parks and Wildlife Conservation – provided some training and tech assistance for the reforestation project

APPENDIX DD

Characteristics of Enterprises – CS 30

Lacks large scale social, environmental, and economic sustainability

Case Study #30 – Ghalegaon

This enterprise is a good example of local involvement based on local ownership and enthusiasm (and economic need). This was an initiative started by a local man who saw the successes of some of the other tourism enterprises in the area and sought to create one for his own community. Being an initiative based on a different successful community-based ecotourism enterprise, this case study should stand as a prime example of the importance of replicability of these community-based development projects. However, the economic benefits of this enterprise are limited to those directly involved in homestays – those families who can sustain guests in their houses (HBP 2013). There is also an ethnic divide, where the Dalits are excluded from the homestay projects and have to attempt to subsist on agriculture (HBP 2013).

All financial dealings are created and implemented by the Ghalegaon Tourism Development and Management Committee (GTDMC) (HBP 2013). Because the local population created the design of the financial system, the disbursement of funds has been forthright, but significantly low and only directly distributed to those who own homestays. Homestay families report that they obtain enough income from the homestay to the extent that they can afford better education in larger cities for their children, which has raised the literacy rate in the community (HBP 2013). Those families who do not have a homestay cannot afford to create one on their own, and the small amount of funds generated by the enterprise as a whole can only afford to put its low earnings toward administrative costs (HBP 2013).

Many of the developments, both social and environmental, have been based on the observation of the local population that more tourists will come to their homestays if their amenities are greater, more diverse, and hygienic. An example of this comes from some community members expanding their own houses in order to accommodate more guests, or buying cars to transport tourists and/or handicrafts to nearby towns (HBP 2013).

Although economic and social benefits are evident, they do not include the entire community, where the Dalits, a marginalized ethnic group in the village, receive no economic benefit from the homestay project, as they have no access to funds to create a homestay or any other entrepreneurial, tourism related project (HBP 2013). Environmental sustainability has increased, but is still in a state of flux as the lack of sufficient income puts pressure on some community members to continue agricultural practices and illegally extract wood from the forests for fuel.

Location:

Uttar Kanya VDC, Lamjung District, Nepal

History:

The Ghalegaon Homestay Project was officially started in 2000, and has since become an effective sustainable development initiative that adheres to direct community involvement and benefit (HBP 2013). The project started with the vision of one local man, Mr Prem Ghale, who wanted to mimic the homestay project established in nearby Sirubari to generate local economic and conservation incentives (HBP 2013; Sedai 2013). To ensure proper management of the enterprise, the Ghalegaon Tourism Development and Management Committee (GTDMC) was created based on a democratic political system with a president, VP, secretary, treasurer, father's group, mother's group, youth club, and two nominees to represent both genders (HBP 2013). The GTDMC provides a voice for all community members through their governmental body, and they have effective orders of operation in creating budgets, dispersing information, creating and implementing development projects, and dispersing funds (HBP 2013; Sedai 2013).

The majority of the community used to rely on agriculture for their income, but the agriculture did not create enough income to be sustainable (HBP 2013). To combat the lack of income, men would find jobs in other areas or join the army, which put significant pressure on the women of households who were left to maintain the house, tend and sometimes educate the children, and attempt to revive the agricultural activity (HBP 2013). Now that the homestay project is in effect, women (who are involved in the homestay project) are becoming more economically independent and are able to provide better education to their children (HBP 2013).

Conservation:

Due to unsustainable collection of firewood in the forests, large portions of the area were devoid of vegetation (HBP 2013). With in the influx of tourists in the area, and acknowledgement by the local population that nature is an attraction to the tourists, the GTDMC and Annapurna Conservation Area authorities started a tree regeneration project, where the GTDMC will plant 1,000-1,500 saplings per year (HBP 2013). This initiative is already seeing benefits as multiple bird species have been seen in higher numbers in the area, as well as sightings of leopards (HBP 2013).

Gas stoves are accessible to each household in order to reduce reliance on wood for fire, but the gas is expensive and some illegal extraction does occur within the forests (HBP 2013).

Accommodation:

The enterprise utilizes a homestay infrastructure, where visitors stay in the homes of the local communities (HBP 2013; Sedai 2013).

Accessibility:

The initial accessibility infrastructure was less than desirable at the onset of the enterprise, but the local community has since developed methods of access to sustain the longevity of their homestay (HBP 2013). One success factor is the direct link of the village to the Annapurna tourism circuit within the Annapurna Conservation Area (HBP 2013; Sedai 2013).

Challenges Faced:

One challenge to maintaining international visitors is the required permit to enter the Annapurna Conservation Area Project region (HBP 2013; Sedai 2013). It has been reported that some international visitors did not know this, entered the park, and ended up having to pay double the fine – which may hinder more international interest in the Ghalegaon homestay (HBP 2013).

One of the initiatives of this enterprise was to reduce the amount of out migration by the local population (HBP 2013). However, those who do not, or can not, participate in the homestay model inevitably migrate to other areas, and a noted decrease in the population has been noted because of this (HBP 2013). According to the Hariyo Ban Program Report (2013), there is also a local saying that enforces migration as a social norm, almost a right of passage: “as a son, one has to go abroad at least once” (pg 61), which can also contribute to fluctuating population levels.

Although sanitation efforts have increased, the efforts have not kept up with the increasing amount of tourists (HBP 2013). There is no official dumping sight, and use of biodegradable supplies are not present (HBP 2013). With the development of local stores, introduction of packaged produce, be it liquid or other, has influenced the local diet and has increased the garbage pileup in the community (HBP 2013).

Stakeholders:

Ministry of Tourism and Civil Aviation – Nepalese regional governmental body that assisted with initial development of the homestay project

Tourism Board – regional gov. body that assisted with initial development of the homestay project

Tony Park – founder of the Sirubari Homestay project, helped with replication of the Sirubari project in Ghalegaon

Annapurna Conservation Area Program – helps with resource management and regulation of development in the area

Ghalegaon Tourism Development and Management Committee – local administrative body that initiates and oversees all development for the enterprise

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