A MARKET SURVEY OF ECOTOURISTS IN THE VALDIVIAN TEMPERATE FOREST ECOREGION OF CHILE

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A MARKET SURVEY OF ECOTOURISTS IN THE VALDIVIAN TEMPERATE FOREST ECOREGION OF CHILE

A

THESIS

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ABSTRACT

A survey of ecotourists in the Valdivian Temperate Forests ecoregion of southern Chile is used to determine if the experience and activity preferences of the market match what is being developed at local community-based ecotourism projects. It also compares the motivations of the same market with the motivations outlined in the definition of ecotourism. Survey design was based on a literature review, and observations and key-informant interviews collected in the study area. Ecotourists show strong preferences for the types of accommodations and experiences that exist or are being developed at ecotourism project sites: hostels, camping, low-intensity nature-based activities, pristine environments, and simple marketing schemes. However, market demand for guide services may not meet expectations. Survey respondents who support ecotourism goals fall into a tightly defined cluster, the majority of whom are Chilean. Proponents of ecotourism development in this area have expectations that generally conform to the guidelines presented in the case study literature, and ecotourism can complement the improving, but currently weak, political capacity for conserving native forest biodiversity in this region.
RESUMEN

Una encuesta a ecoturistas, en la ecoregión de los Bosques Templados Valdivianos en el sur de Chile, fue utilizada para determinar si las actividades preferenciales del mercado coinciden con lo que proyectos de ecoturismo comunitario están desarrollando. Además se comparan las motivaciones de este mercado con las pautadas en la definición de ecoturismo. El diseño de la encuesta está basada en una revisión bibliográfica y en observaciones y entrevistas a personajes claves, realizadas en el área de estudio. Los encuestados muestran preferencias por el tipo de acomodaciones y actividades que actualmente se ofrecen o que están siendo desarrolladas en proyectos ecoturistas: hosterías, camping, actividades al aire libre de baja intensidad física, ambientes prístinos, y medios de difusión simples. Sin embargo, la demanda de mercado para viajes guiados puede que no coincida con lo esperado. Los encuestados, que comparten las metas del ecoturismo, conforman un grupo con características muy específicas, y en su mayoría son Chilenos. Los propulsores del desarrollo ecoturístico en esta área presentan expectativas generalmente conformes con las pautas presentadas por la bibliografía. El ecoturismo puede complementar el mejoramiento, aunque actualmente débil, de la capacidad política para la conservación de la biodiversidad del bosque nativo en esta región.


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1. Introduction

The fundamental hypothesis of community-based ecotourism as a conservation strategy is that when people can benefit from activities that rely on intact natural environments, they will be more likely to act to preserve those environments (Epler-Wood 2002, Salafsky et al. 1999, World Wildlife Fund 2001b). In the Valdivian Temperate Forest ecoregion of southern Chile, communities and organizations are proceeding with ecotourism development with the dual goals of conserving forest biodiversity and promoting community development. However, they are proceeding without a clear picture of the availability and preferences of the ecotourism market.

Therefore, the goal of my research is to provide a profile of the target market for community-based ecotourism projects in this part of Chile. My research addresses the following questions: do the preferred activities and experiences of the market match the activities and experiences that the projects are developing, and how do the travel motivations of the market segments that prefer the activities and experiences that the projects are developing compare to the motivations outlined in the definition of ecotourism?

The primary mechanism of my research was a survey questionnaire presented to visitors at national parks and a campground in the study area. The survey was designed to identify the visitors’ activity and experience preferences, spending levels and patterns, and motivations for their travels. The first research question was answered by comparing the opportunities that are available at developing ecotourism projects in the study area with the preferences identified in the survey. The second research question was answered by using cluster analysis to categorize survey respondents based on how closely their travel motivations matched the motivations outlined in the definition of ecotourism.

In order to design the questionnaire, it was necessary to understand the general, regional, and local contexts for community-based ecotourism development. Reviewing the literature on ecotourism development provided the general context. Reviewing the political context of forest conservation in Chile provided the regional context. Because a
primary goal of all the community-based ecotourism projects in the study area is the conservation of native forest biodiversity, the political context is important, as it offers unique constraints and opportunities. Interpreting qualitative data I collected at project sites in the study area provided the local context. These data consist of observations at operating and developing ecotourism projects, as well as interviews of funding organization leaders and community members. This local context identified the target market and defined the activities and experiences that will be available at project sites.

Results of my research help inform communities and funding organizations in their efforts to develop ecotourism enterprises that meet both market demands and cater to tourists likely to share the dual goals of ecotourism. My study also outlines the potential financial benefits to communities. Finally, this study is the first market research of community-based ecotourism in this region.
2. Background

This background section consists of two parts. In the first part I review the literature on ecotourism as a conservation and development strategy. I define ecotourism, review its history, and outline some of the implications of ecotourism to the conservation of biodiversity and the development of rural communities.

In the second part I review the political context for conserving native forest biodiversity in Chile. I discuss forestry and land tenure policy, indigenous rights issues, Chile's neoliberal economic policies, and the role of government and non-governmental institutions. Indigenous rights issues are included because the majority of the study sites are in indigenous communities.

2.1 Ecotourism as a conservation and development strategy

2.1.1 Ecotourism defined

Tourists, researchers, conservationists, communities, and the tourism industry do not have a common definition of ecotourism. Ecotourism is often considered in the same context as nature, rural, and adventure tourism because all these forms of tourism take place in mostly natural environments. In an effort to establish a common definition, at least among researchers and the conservation and rural development communities, the International Ecotourism Society provided one of the earliest definitions in 1991:

Ecotourism is responsible travel to natural areas that conserves the environment and sustains the well being of local people (Epler-Wood 2002, p 9)

The IUCN (International Union for Conservation of Nature and Natural Resources, now known as the World Conservation Union) further refined the definition in 1996 to address the involvement of local communities:
Ecotourism is environmentally responsible travel and visitation to relatively undisturbed natural areas, in order to enjoy and appreciate nature (and any accompanying cultural features – both past and present) that promotes conservation, has low negative visitor impact, and provides for beneficially active socioeconomic involvement of local populations (Epler-Wood 2002, p 9).

A review of the literature shows the second definition to be the most widely accepted definition of ecotourism among researchers and conservation and rural development organizations.

Following is a list of the basic characteristics of community-based ecotourism. This list was adapted from principles developed by the United Nations Environment Programme (UNEP 2001), Epler-Wood (2002), and the World Wildlife Fund (WWF 2001b), who state that community-based ecotourism:

1. Takes place in relatively undisturbed natural areas
2. Contributes to the conservation of biodiversity by:
   a. Reducing or replacing activities that threaten biodiversity
   b. Raising local and visitor awareness of conservation and the value of biodiversity
3. Sustains the well-being of local people
4. Includes an interpretive or learning experience
5. Is delivered primarily to small groups by small-scale businesses
6. Emphasizes local participation, ownership, and business opportunities
7. Emphasizes the lowest possible consumption of nonrenewable resources.

Because tourism is the world’s largest industry it has a significant influence on the status of biodiversity (WWF 2001). In recognition of this influence and the growth of ecotourism as a conservation and development strategy, the United Nations declared 2002 as the International Year of Ecotourism.
2.1.2 History of ecotourism

Ecotourism as a conservation and development strategy has been discussed in research literature for approximately 15 years and has evolved concurrently with community-based conservation concepts (Epler-Wood 2002). Community-based conservation represents a paradigm shift from the strategy of restrictive conservation reserves to more inclusive involvement of local and resident peoples in the management of conservation areas.

In Resident Peoples and National Parks, West and Brechin (1991) critique the conservation strategy of establishing national parks and conservation areas that restrict use by resident peoples. They argue that this paradigm was influenced by the model of U.S. National Parks, and to a lesser extent by restrictive game reserves in India. In their opinion, this model influenced early IUCN conservation area categorical descriptions. Guha (1989) also argues that the North American philosophy of pristine wilderness and areas that are “untouched” by humans influenced this strategy. In the view of West and Brechin, this paradigm biased the designation of national parks towards either excluding resident populations or significantly restricting the use of resources in the park by resident or local peoples. They present cases where this strategy has led to antagonistic attitudes by local peoples towards the idea of conservation reserves (Watson et al. 1998, Mehta and Kellert 1998). One example is violent conflict between park managers and local people over firewood collecting restrictions in Simien National Park in Ethiopia (Clad 1982).

The exclusionary protection paradigm resulted in continued, and typically illegal and unmanaged, resource use in conservation areas; a problem that was even more prevalent in developing countries and communities that relied on subsistence economies. Many conservation areas were “paper parks” and few resources existed for enforcing park boundaries and regulations. Case studies have shown that this strategy has led to impoverishment and cultural disintegration. For example, Calhoun (1991) describes how the establishment of a national park on the main hunting grounds of the Ik tribe in Uganda, and the subsequent use restrictions, led to disintegration of their culture and...
society. There are individual cases where the restrictive reserve idea is valid, but West and Brechin conclude that in the majority of cases, the restrictive-park-paradigm has net negative results for conservation:

If conservation is to become sustainable the interests of local people and conservationists must converge. Protected areas will not survive for long whenever local people remain impoverished and are denied access to needed resources inside protected areas. Likewise, local people will sink further into poverty unless they manage wisely and conserve their natural resources (West and Brechin 1991, p. 26).

People that live near conservation priority areas and conservation are inseparable, for the benefit or detriment of both. The Gir National Park in India is an example of how local peoples can benefit conservation (Raval 1991). In the Gir National Park conservation planners blamed the animal husbandry practices of resident Maldhari people for degrading the habitat of the endemic Asiatic Lion. So the Maldhari were moved to poorer quality agricultural lands. Further research showed that the resident Maldharis, before relocation, provided benefits to wildlife conservation by protecting the wildlife from poachers and settling their communities in patterns that encouraged wildlife to stay within park boundaries.

Other researchers describe the mutually beneficial link between local communities and conservation (Belsky 1999, Brechin et al. 2002, Young 1999, Wilshusen et al. 2002).

As a result of the problems with the exclusionary protection paradigm, community-based conservation was developed as an alternative. The idea gained further momentum following the 1992 U.N. Conference on Environment and Development in Rio de Janeiro, where a doctrine was established that required international development aid to be linked with environmental sustainability and stakeholder participation (Bryner 1999). Integrated conservation and development projects (ICDPs) and the principles of adaptive management have gained popularity in conservation circles as a means to
include stakeholders in management decisions. The principle of ICDPs is that local people have valuable insight about their resources that can inform and guide conservation planning to achieve biodiversity conservation and provide tangible benefits to local people (Chapin et al. 2002).

Another example of changing conservation strategies includes the Biosphere Reserve Program of the United Nations, which recognizes traditional resource uses in areas that have high conservation priority (Shafer 1990). Buffer zones are another concept. Buffer zones are areas of intermediate use restrictions between areas of stricter resource preservation and higher use zones (Shafer 1990, Noss and Cooperrider 1994).

In 1992, the Biodiversity Conservation Network, a USAID supported project, was formed to test a main hypothesis of community-based conservation: “if local communities receive sufficient benefit from a viable enterprise that depends on biodiversity, then they will act to counter internal and external threats to that biodiversity”. Twenty community-based enterprises, six of which were based on ecotourism, were used as case studies over a period of three years. This project concluded that enterprise strategies in most cases lead to conservation, but only under conditions that become specific to each site (Salafsky et al. 2001). This project developed a guide for assessing the potential success of community-based enterprise strategies, including ecotourism. According to this guide, key ingredients for success of an enterprise include that (Salafsky et al. 1999):

1. It takes place in relatively undisturbed natural areas
2. Is viable within its economic-political-social context
3. Has a link to biodiversity
4. Is set up so that the community receives the majority of the benefits, which are not necessarily financial
5. It exists where there is local control over the threats to biodiversity.

A surprising conclusion of the Biodiversity Conservation Network was that conservation was achieved in some of their case studies even if they were not financially successful. The indirect non-financial benefits such as job training and contact with
organizations outside of communities that support community causes were sufficient incentive for communities to continue practicing conservation. They attributed the success to raised local awareness and dedicated project staff. Raised awareness included conservation education and an increase in community pride of the value of their surrounding natural resources. A good project staff included cohesive community leadership and the relationships with collaborating agencies.

Ecotourism is one form of community-based conservation. Two early publications (Boo 1990 and Ziffer 1989) explored the theoretical potential of ecotourism to benefit conservation and local communities. Ecotourism links the activities and economics of tourism to conservation and community development.

The World Tourism Organization estimates that tourist-related activities directly contribute over 4 percent to the global Gross Domestic Product. Tourism provides over 200 million jobs worldwide and is one of the fastest growing industries in the world. Between 1985 and 2000, the international tourism economy grew an average of 9.7 percent per year (UNEP 2001). This figure would be even higher if domestic tourism were included.

While these figures are impressive, it is difficult to determine which portion of the tourist market is related to ecotourism. Ecotourism addresses motivations of tourists and the outcomes of their visits, and is often confused with nature, adventure, or rural tourism. Very little research exists on ecotourism as a specific market segment and estimating the size of the global ecotourism market is difficult (Higgins 1996 and Epler-Wood 2002). However, The World Tourism Organization estimated that nature tourism, of which "ecotourism is one form", made up 7 percent of international tourism expenditures in 1997 (UNEP 2001).

Ecotourism market studies indicate that ecotourists are typically in their 30's or 40's, traveling as a couple, evenly split between male and female, and university educated. A typical ecotourism trip is eight or more days in length (ARA Consulting Group 2001, International Ecotourism Society 2000, Wight 1996a). A report summarizing nine ecotourist market studies stated that the primary travel motivation is to
see and learn about flora, fauna, geography, and other cultures. There is a wide variety of activity preferences, and ecotourists are supportive of nature-based organizations (ARA Consulting Group 2001). Accommodation preferences are cabins, lodges, bed and breakfasts (ARA Consulting Group 2001) and hotels (Wight 1996b). Most ecotourists obtain their trip planning information through word-of-mouth, but the internet is growing in popularity as a resource. Ecotourists are typically international travelers mostly from the United States, Europe, and Australia (Eagles and Higgins 1998).

2.1.3 Ecotourism and biodiversity conservation

One of the aims of ecotourism is to promote biodiversity conservation. The following paragraphs discuss the primary mechanisms of achieving this goal. Because ecotourism is a consumptive activity, it also has negative implications for biodiversity conservation, the most significant of which are also discussed.

*Change from activities that threaten biodiversity*

Ecotourism can encourage local activities that reduce or replace activities that threaten biodiversity. The basic hypothesis of the Biodiversity Support Program was that if local peoples benefit from enterprises that are dependent on the conservation of biodiversity, they will be more likely to act to protect that biodiversity. Actions could include resisting internal activities, such as unsustainable harvest levels of resources, or external activities, such as development of industrial-scale monoculture forestry, that threaten biodiversity. The Biodiversity Support Program studied 20 community-based conservation enterprises over a period of three years. The conclusion of the program was that the hypothesis is true, but only under certain conditions that are specific to each site (Salafsky et al. 1999, Salafsky and Margoluis 1999).

In both the Sagarmatha National Park and Annapurna Conservation Area, the development of protected areas and their subsequent locally based ecotourism enterprises did not solve all environmental problems, but did cause a significant improvement over the escalating environmental degradation that would have resulted with no planning...
(Weber 1991, Bailey et al. 1991). Soil conservation and reforestation projects in these areas would not have happened without the establishment of a conservation area.

**Raised awareness and support**

Ecotourism can benefit conservation by raising the awareness of and support for conservation by both the operators and tourists.

Ecotourism development in MonteVerde, Costa Rica led to an increased conservation ethic among the local population and to the start of recycling programs (Weinberg et al. 2002). In South Africa, locals working at Rocktail Bay Lodge are reported to have changed their perceptions of some local wildlife from pests to valued resources as they saw revenue accruing from tourists' valuing these same resources (Spenceley 2001).

The conservation benefits of raised awareness of the ecotourists are difficult to quantify. It may be that ecotourists benefit conservation by adjusting consumer behavior, supporting conservation through financial contributions or volunteer activity, or pressuring government institutions to create protected areas or sustainable development policies. The ecotourism literature suggests that raised visitor awareness and support for conservation is important, but there is little empirical research to test this hypothesis.

**Protected areas and improved habitats**

Ecotourism can add to the number of protected areas and restored habitats. Examples of reforestation efforts have already been mentioned. Another example is the Medirigiriya Nature Park and Bird Paradise in Sri Lanka, where native tree species were replanted in a previously forested area to promote increased biodiversity (de Silva and Kotagama 2001).

**Degradation of habitats**

Tourism, on the other hand, can negatively impact biodiversity. Tourism can lead to the degradation of habitats by the replacement of natural environments with roads, buildings, and other infrastructure, as well as disrupt wildlife behavioral patterns. Woody
species were reduced in areas subjected to campsite development in Uganda (Obua 1997). Eighty-four percent of National park superintendents in the United States believe that visitors have negative impacts on native species (Wang and Miko 1997). Tourists potentially disrupt animal behavior and promote reliance on being fed by humans (Isaacs 2000). Waste disposal systems in Kaikoura, New Zealand were found inadequate by Weinberg et al. (2002) to deal with the increasing number of ecotourist visitors, resulting in negative impacts on the local environment. Other authors have warned of the threat to ecosystem integrity by inadequate waste disposal options (Isaacs 2000) as well as the multiple threats to wildlife and habitats from infrastructure development (UNEP 2001).

**Depletion of local natural resources**

Tourism increases the use of local natural resources such as wood for fuel, soil resources for agricultural production, and sometimes harvest of local flora and fauna (UNEP 2001). Local entrepreneurs may try to capitalize on the growing tourist market by increasing their harvesting of common pool resources. In both the Sagarmatha (Mount Everest) National Park and Annapurna Conservation Area in Nepal, increased numbers of tourists have led to deforestation from fuel wood harvest, and overgrazing and soil degradation from increased levels of livestock production (Weber 1991 and Bunting et al. 1991). In the Annapurna area, for example, Bunting et al. (1991) reports that the average two-month climbing expedition uses 133 kilograms of firewood per day while the average Sherpa family uses 14 kilograms per day.

Another negative implication of ecotourism development is conflict over access to tourism resources. In Baja California, Mexico, whale watching has turned into a lucrative ecotourism business. However, if future access rights are not equitable, conflicts between local entrepreneurs over access to the whales and the tourists will negatively affect the whales (Young 1999).

**Exotic species invasions**

Ecotourism can cause or magnify the threats to native species by the introduction of exotic species. Introduction of exotic species is considered to be one of the most
significant threats to biodiversity (Stein et al. 2000, Noss and Cooperrider 1994). Tourists can inadvertently introduce exotic species by transporting seeds or small insects in clothing or on shoes. Food or equipment to support a tourism enterprise transported from other areas can also introduce non-native flora and fauna (Tershy et al. 1997, Obua 1997).

2.1.4 Ecotourism and community development

The dual goals of ecotourism are to promote biodiversity conservation and community development. The following paragraphs discuss the ways in which ecotourism can lead to achieving the community development goal, as well as some of the more significant potential negative implications of ecotourism to communities. Recognition of how ecotourism development can affect long-held community traditions and values was a major impetus for the declaration of 2002 as the International Year of Ecotourism (UNEP 2001). The purpose of declaring the International Year of Ecotourism was to promote ecotourism within the framework of sustainable development.

Sustainable utilization of biodiversity resources

Communities that subsist on local natural resources benefit from the sustainable development of those resources. Other development alternatives eventually lead to the degradation of the resource (West and Brechin 1991). Many of the alternatives to ecotourism development, such as monoculture plantation forestry, have potentially worse consequences for environmental quality.

Economic benefits

There are numerous examples of direct economic benefits for communities from ecotourism development. For many communities, ecotourism can be a sustainable economic alternative. For example, in the Petén Biosphere Reserve in Guatemala, locals receive economic benefits by selling foodstuffs and handcrafted items to passing tourists (Stafford 2001). Over 40 percent of the local people in the vicinity of Hol Chan Marine
Reserve in Belize report receiving economic benefits from the presence of the reserve (UNEP 2001). Private conservation reserves in Africa are providing jobs and income for local peoples (UNEP 2001). Locals employed at the Rocktail Bay Lodge in South Africa use their salaries to financially support an average of 8.7 other community and family members (Spenceley 2001)

**Indirect benefits**

One of the most surprising conclusions of the Biodiversity Support Program was that financial benefits are not a necessary condition for the conservation success of an enterprise, and that there are other significant community benefits such as increased pride and feelings of empowerment (Salafsky et al. 1999). Locals involved in community-based enterprises often learn business skills that better prepare them to decide how they want to integrate into the global community, if at all.

The benefits of ecotourism can also include more access to educational opportunities, better health care, and a higher standard of living (Weinberg et al. 2002, UNEP 2001). Through ecotourism development, communities build relationships with collaborating development or conservation organizations that can provide technical expertise to handle resource or legal issues (Hough 1991).

An example of some of the indirect benefits of ecotourism is in the Madre de Dios region of Peru, where an indigenous community is collaborating with a Peruvian tour company to create an ecotourist lodge in the tropical rainforest. The lodge is managed jointly, and a goal of the program is to eventually transfer management of the enterprise to the community. The locals take advantage of educational opportunities and are actively involved in the business, providing a sense of pride and ownership within the community (Stronza 1999).

**Changes in cultural practices, traditions, and values**

Ecotourism engages a mainstream economic activity; tourism. Therefore, communities that practice subsistence lifestyles or have little contact with outsiders will experience the greatest change from ecotourism development. These changes include
shifts in values, practices, and traditions (Place 2001, McLaren 1999, Bunting et al. 1991). Most international ecotourists come from affluent Western societies, and contact with poor local communities can create new materialistic aspirations (Scheyvens and Purdie 1999). In both the MonteVerde private conservation reserve in Costa Rica and Kaikoura, New Zealand, when locally based ecotourism enterprises developed into extra-local, larger-scale tourism development, the local people noted detrimental changes in their traditional societies and values (Weinberg et al. 2002). In the Mount Everest region of Nepal, local peoples that wanted to maintain traditional agricultural practices had difficulty competing economically with others that engaged tourist markets (Weber 1991).

**Local inflation**

Ecotourism and its associated influx of money and non-local people can inflate prices for basic commodities and land. After a national park was established in Tortuguero, Costa Rica, extra-local tourism operators drew large numbers of foreign visitors. Prices for basic items and land increased (Place 2001). Local inflation, and especially increased prices for basic commodities, was also noted in case studies in South Korea (Woo 1991) and Nepal (Bunting et al. 1991, Weber 1991).

**Conversion into extra-local ecotourism**

Multiple authors (Place 2001, Isaacs 2000) warn of what Weinberg et al. (2002) calls the “ecotourism treadmill”, where small community-based ecotourism evolves into extra-local ecotourism. In a typical scenario, locals initially capitalize on a domestic tourist market. As the area becomes more popular and the market grows, larger tour operators move in and out-compete the local operators because of more business and hospitality expertise, and access to investment capital. The tourist market subsequently increases and becomes more international. Local entrepreneurs and community organizations are eventually cut off from the benefits of tourism, often followed by antagonism between locals and the extra-local operators, or less support for conservation efforts.
Before the establishment of the Annapurna Conservation Area in Nepal, only 20 cents of the daily tourist expenditure of 3 dollars remained in the community (Bunting et al. 1991). In Tortuguero National Park in Costa Rica, it was estimated that less than 10 percent of the people in the resident community received economic benefits from the park (UNEP 2001). Other authors are critical of some of the ecotourism development in Costa Rica, noting that there is significant "leakage", or benefits leaving the local area (Place 2001).

In the San Blas Comarca of Panama, the indigenous Kuna Yala people have had multiple conflicts over land rights issues when upscale tourist resorts were developed on their ancestral lands. These developments led to armed conflicts in the 1960’s and 70’s (Bennett 1999).

**Disruption of socio-economic-political relationships**

Ecotourism can present new pressures for the use of natural resources that conflict with more traditional uses (UNEP 2001). For example, in the Galapagos Islands, Bailey (1991) describes the incompatible goals of conservationists, tourism operators, and local fishermen, which has led to resource access conflicts. In Baja California, Mexico, Young (1999) warns that without effective regulatory controls of whale-watching ecotourism, access to the whales will create conflicts that are detrimental to both the resource and local communities.

Ecotourism can introduce non-traditional democratic decision-making styles that are foreign to communities that have never practiced democracy. In Gales Point Manatee, Belize, a community within a conservation area benefits from ecotourism by offering accommodations and guides. However, local politics and patronage inequities severely limit the equitable distribution of ecotourism benefits, such as jobs and income (Belsky 1999). Other research has shown that local elites can dominate and monopolize the benefits of ecotourism enterprises (Scheyvens and Purdie 1999).
2.2 Politics of native forest conservation in Chile

2.2.1 Forestry policy and land tenure

In Chile, it is difficult to determine the extent of pre-settlement forest cover because of a paucity of historical data, but estimates comparing current forest cover to that in 1550, for all forest types in Chile, show that 56 percent of the forest has been cleared for activities such as agriculture, plantation forestry, and urban development (Neira et al. 2002). Another estimate is that 47 percent of temperate forest in southern Chile was cleared between 1700 and 1980 (Armesto et al. 2001).

Settlement in the Valdivian Temperate Forest region of Chile followed the military conquest of the indigenous Mapuche in the 1880’s. The state encouraged settlement by ceding Mapuche lands to individuals and colonization companies in return for promises to clear native forests to develop a farming and livestock economy. At this early stage, forestry policy focused on controlling the exploitation of public lands while ignoring resource extraction on private property. However, this area of Chile was a frontier, far from the eyes of the national government, and widespread use of forestry resources, on both public and private land, prevailed (Klubock 2004).

The first law dealing specifically with forest management dates to 1931. While this law lacked fiscal incentives or regulatory mechanisms for sustainable management, it established a policy of protecting specific species and prohibiting timber cutting practices that led to soil erosion. It also promoted reforestation of pine on lands degraded from poor agricultural and timber cutting practices.

During this time forestry was practiced on large agricultural estates by rural workers. Forestry was a secondary activity to agricultural production. The logging industry consisted mainly of small portable mills and hand labor supplying a domestic supply of building materials and fuel wood.

Before agrarian reforms that started in the 1960’s, Chile was characterized by a semi-feudal system of agricultural production. More than 80 percent of agricultural land in Chile was in large estates that were managed and owned by only 3 percent of rural residents (Barraclough 1999). Estate owners extracted labor and surplus agricultural
production from tenant farmers who were granted a parcel of land on estate property (Bellisario 2002).

This semi-feudal estate system first began to change in the 1930’s. Empowered by the successes of organized labor in the mining industry and left-leaning tendencies of the government, labor laws were passed in 1931 that created opportunities for rural workers to organize. In 1958, rural workers earned the right to vote in elections by secret ballot. Previously, estate owners wielded considerable political power by controlling the election process (Klubock 2004). Rural worker unions were legalized in 1967 with passage of the Peasant Union Law.

Agrarian reform was a high profile issue in the presidential elections of 1958. Chile has multiple political parties that form two or three coalitions to nominate candidates for the presidency. In 1958 the conservative coalition barely won a plurality with only one third of the popular vote and the Socialist-Communist coalition was strongly supported by the rural workforce (Barraclough 1999). This pressured the conservative coalition to consider agrarian reform. Further pressure came from the United States in the wake of the success of the Communist revolution in Cuba. The “Alliance for Progress” of the Kennedy administration was aimed at curbing revolutionary movements by encouraging social reforms (Barraclough 1999, Bellisario 2002).

Also, beginning in the 1950’s the cellulose and paper industries grew rapidly and Chile started building a forest products export industry. This growth was funded by government development projects. The state accelerated reforestation efforts, of pine, on both public and private lands and entered into agreements with private landowners to supply lumber to modern mills.

The systematic expropriation of large estates began with the presidential administration of Eduardo Frei (1964-1970) and rapidly accelerated under the Allende administration (1970-1973). Frei was nominated by a coalition of the Christian Democrats and other centrist and right wing-parties. Allende represented a coalition of socialists, communists, and other left-wing parties. Frei’s reforms were slower than
promised, and the transfer of title to individuals and co-operatives was a complicated process. Agrarian reform under Allende was rapid and expropriation policies were accelerated. By 1972, nearly all the large estates had been expropriated (Barraclough 1999). Some estates were even subjected to successful and illegal “invasions”, organized by rural workers that were ignored by the national government (Klubock 2004). The expropriated estates made up 36 percent of agricultural land in Chile. After expropriation, these estates were managed by co-operative arrangements among rural farm worker committees and government institutions.

The military coup in September 1973 abruptly changed Allende’s agrarian reform policy. The military dictatorship, led by Augusto Pinochet, either returned the expropriated lands to previous owners or assigned them to individuals to be managed as family-sized farms. Therefore, within a span of ten to twenty years the estate system in Chile had nearly completely disappeared to be replaced by farms of various sizes that were engaged in the free market.

The plantation forest industry was directly affected by the agrarian reforms of the late 1960’s to 1973. Many expropriated estates managed by the government were planted with pine, a policy that was accelerated under the Allende administration. Allende blamed the private estate system for the systematic destruction of Chile’s native forests and the degradation of its soils for private profit (Klubock 2004). His policy was to expropriate all large privately held estates that had native forest and sustainably manage these forests to meet his administration’s social development goals for the rural worker population. “By 1973 the state had become the major owner and administrator both of plantations and the industrial processing of forest products” (Klubock 2004, p. 344). The forestry policy of Allende could be summarized as protecting native forests from private exploitation and deforestation while at the same time controlling the management of both the native and plantation forestry industries.

Once again, this policy abruptly changed with the military coup in September 1973, beginning with rapid capitalization of the forestry industry. Expropriated and public lands were returned to individual ownership and auctioned off. Mills and
plantations were also privatized. Forestry companies took advantage of the new land disposal schemes to consolidate and increase their holdings. By 1984, two financial groups controlled 50 percent of the pine plantations and 100 percent of the cellulose industry in Chile (Klubock 2004).

The most significant piece of forest policy legislation of the Pinochet era was Decree Law (DL) 701, enacted in 1974. This law was specifically designed to promote growth in the forest products export industry in order to stimulate the national economy. It provided up to a seventy-five percent subsidy for the cost of planting monoculture forest plantations. Between 1974 and 1980, only 23 percent of pine plantations were privately financed (Klubock 2004). Additionally, forested lands were exempted from many agricultural taxes and the law provided a legal guarantee that these lands could not be expropriated. This law placed no value on native forests and promoted two decades of the growth of monoculture tree plantations (Clapp 1997).

The provisions of DL 701 favored the large forestry companies. Small mill and landowners had little access to state credits and subsidies. Therefore, small operators found it increasingly difficult to compete in the same market with the large operators. They had minimal capital to invest in modern machinery. Additionally, many small landowners could not wait the requisite 20 years, a typical pine plantation rotation in southern Chile, to reap the profits of a plantation. They often opted to sell their lands.

The repercussions of DL 701 resulted in further consolidation of the forest industry. By 1984, three large financial groups owned or controlled “75 percent of plantations, 78 percent of industrial production, and 73 percent of exports and received 85 percent of the state subsidies and credits for forest cultivation and management” (Klubock 2004, p. 349). It also accelerated the pace of privatization of public lands, and opened up trade policies for the ease of exporting low value-added forest products. For example, in 1975 it became legal to export raw logs.

In response to international pressure to protect the most heavily exploited species, in 1975 Chile ratified the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). Three endemic Chilean trees are listed in Appendix 1 of
CITES, which provides the highest level of restriction on international trade: the Alerce (*Fitzroya cupressoides*), Guaitecas Cypress (*Pilgerodendron uviferum*), and the Araucaria (*Araucaria araucana*, more popularly known as the Monkey Puzzle Tree). The significance of these listings is that these trees are some of the most commercially valuable and endangered, except the Araucaria, species in Chile. In addition to trade restrictions, Chilean law currently prohibits the harvest of live trees of these species.

Therefore, agrarian reform and forestry policy which began in the late 1950's and continued through the Pinochet era resulted in a transformation of the countryside in southern Chile. These changes persist to this day (Klubock 2004, Bellisario 2002). The estate system of agricultural production was completely transformed into a system of capitalist farms of various sizes. Agricultural production in southern Chile is now complemented by a growing forest products export industry. Many former agricultural lands were turned into forestry plantations. A growing wood chip industry placed pressure on native forests. In 1986, Chile did not export wood chips. By 1995, Chile was exporting over 4 million tons of wood chips (Infor 1999). Native forests on private lands were cleared, mainly to support this industry, and replanted with exotic species to take advantage of state subsidies. The rate of conversion from native forest to plantation between 1987 and 1996 was 98,000 hectares per year (Cartwright 1998).

The return to democracy in 1989 coincided with significant pressure to amend DL 701 or pass similar legislation to deal with the management of native forests. Drafting of a native forest management bill began in 1992, but after ten years of debate, nothing has been passed. While DL 701 expired in 1994, it is still in effect for lack of replacement legislation.

The difficulties of establishing a native forest management policy is important for understanding the sustainable forestry issue in Chile. All three of the presidential administrations since the transition to democracy have tried to formulate native forest legislation to address the inadequacies and problems with DL 701, and all so far have failed. According to Silva (1997a), this failure can be attributed to conflicts between two epistemic communities that influence environmental policy in Chile. The market-
friendly community consists of mostly business interests and the military and is committed to continuing the open-market, neoliberal economic policies that were initiated during the 1973 to 1989 military regime. The alternative community is composed of academics, and conservation and grassroots organizations that emphasize social equity, sustainable development, and environmental protection. Silva credits the alternative community with keeping environmental protection on the policy agenda, especially during the transition from military rule. When the Aylwin Administration took office in 1990, the alternative community was suddenly in a position of leadership within the government. The forest service is part of the Ministry of Agriculture, and the minister was a member of the alternative community. The National Committee for the Defense of Flora and Fauna (CODEFF), an influential non-profit environmental organization, was instrumental in drafting the first native forest management bill. However, this bill failed in the Senate where, Silva argues, the market-friendly community held the balance of power.

Chile operates under the 1980 Constitution that was written by the military regime. Chile has a bicameral legislature. All seats in the lower house are elected by popular vote. The Senate consists of 38 elected and 9 institutional senators who serve eight year terms, and all former presidents receive life terms. Four of the institutional senators must be former military or police commanders. In a publication sponsored by the Chilean presidency, Fernandez (2000) points out that the existence of these "so-called" (italics from Fernandez) authoritarian enclaves are one of the most debated topics concerning the legitimacy of the constitution. At the same time, the constitution is widely accepted and has served as a suitable framework for the transition from military rule. The existence of institutional senators limits the policy options of the elected president and legislature and helps protect the market-friendly policies of the military regime (Silva 1997b, Fernandez 2000).

In the context of environmental policy, the 1994 Basic Law of the Environment established mechanisms for democratic participation in resource management. While providing only general statements about protecting environment quality, its most
significant contribution was to require all major development projects to undergo an environmental assessment, and stipulated that the general public be given the opportunity to comment (Tomic and Toledo 2000). However, permitting agencies are only required to “consider” public comments, and projects can be approved with objections from the effected communities. A further limitation of the assessment process is a lack of information. Chile has no Freedom of Information Act. Project proponents have unlimited time and resources to prepare an Environmental Assessment (EA). The public is not involved at any point during the drafting of the EA and they are allowed only 60 days to comment after they see the EA for the first time (Tomic and Toledo 2000).

A citizen’s right to seek damages for environmental degradation is legally guaranteed. However, they can’t appeal directly to the courts. Citizens are required to appeal to local mayors or councils. Corporations, on the other hand, can initiate legal action at the national level through the National Environmental Commission (CONAMA). This differential treatment in the appeal procedure limits the effectiveness of citizen court action (Sheppard 1999). However, in May of 2003, after six years of litigation, a grassroots citizens group was successful in temporarily halting construction of one of the largest development projects in Chile by exposing flaws in the project’s environmental assessment (Mapuche International Link 2003). This event demonstrates how the judicial system in Chile is still evolving and adjusting to democratization.

Chile’s protected wilderness and natural areas are encompassed in the National System of Protected Areas (SNASPE). These areas meet the requirements of IUCN categories I through VI, and cover 19 percent of the country. This gives Chile the distinction of being seventh in the world and third in the Western Hemisphere in the percentage of protected lands (World Conservation Monitoring Center 1998, Wilcox 1996). For comparison, in the United States, similar protected lands cover 21 percent of the land base (World Conservation Monitoring Center 1998). However, 90 percent of SNASPE lands are in the extreme southern end of Chile, which comprise ice fields and very remote terrain, and do not encompass much of the biodiversity value of the Chilean
temperate rainforest (Armesto et al. 1998). In a 1992 study, only 10.3 percent of SNASPE areas were covered with native forest (Chile Forestal 1992).

Table 2.1 summarizes the key legislation affecting forest policy and indigenous rights.

Table 2.1. Key legislation affecting forest policy and indigenous rights

<table>
<thead>
<tr>
<th>Year</th>
<th>Description</th>
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<tbody>
<tr>
<td>1931</td>
<td>Forest Law</td>
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<tr>
<td>1974</td>
<td>Decree Law 701</td>
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<tr>
<td>1975</td>
<td>CITES Convention of 1973</td>
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<tr>
<td>1980</td>
<td>Constitution of Chile</td>
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<tr>
<td>1984</td>
<td>CONAF Organic Law</td>
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<tr>
<td>1984</td>
<td>National System of Protected Wildlands (SNASPE)</td>
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<tr>
<td>1990</td>
<td>CONAMA Organic Law</td>
</tr>
<tr>
<td>1994</td>
<td>Basic Law of the Environment</td>
</tr>
<tr>
<td>1994</td>
<td>Indigenous Law (CONADI)</td>
</tr>
</tbody>
</table>

2.2.2 Indigenous rights

The Mapuche are the largest indigenous group in Chile and the only indigenous group in my study area. The Mapuche comprise 4-5 percent of the 15 million people in Chile (Insituto Geográfico Militar 2002). They are also the poorest ethnic group, earning well below the national wage average (Sznajder 2003, Barrientos 2001).

The Mapuche were one of the most successful indigenous groups at resisting Spanish colonization in the Americas. Between 1546 and the early 1800’s, through negotiation and wars, the Mapuche were able to maintain their own independent territory in South-Central Chile. After siding with Spain during the struggle for Chilean independence which began in 1811, the Mapuche were slowly pushed off their lands through military conquest. By the 1880’s, the Mapuche had effectively lost control over most of their lands and were assigned to reservations. By 1919, most of the previously Mapuche controlled lands had been allocated to both Mapuche communities, in the form of reservations, and non-Mapuche settlers. Lands allocated amounted to approximately
17 hectares per person for the Mapuche and 1,235 hectares per person for the settlers (Sznajder 2003).

After conquest, state policy was to eventually integrate the Mapuche into Chilean society, mainly through education, teaching of the Spanish language, and economic development projects. The Mapuche, being part of the rural population, were included in the agrarian reform programs of the Allende administration. During this time 70,000 hectares of expropriated land were transferred to the Mapuche (Sznajder 2003). In 1972, the Indigenous Law was passed to initiate social development programs in Mapuche communities.

As with agrarian reforms, the military coup of September 1973 caused an immediate policy reversal. Both the Agrarian Reform and Indigenous Laws were repealed. The Mapuche leadership, and Mapuche people in general, experienced harsh repression, including torture and execution, because of their associations with leftist political organizations. In 1979, the military regime enacted Decree 2.568, with the goal to “integrate the Mapuche definitely into Chileanity with rights and duties equal to the rest of the country” (Chile 1979, p.57). The primary mechanism for this policy was to replace community ownership of land with individual title. Additionally, the legal status of Mapuche reservations was abolished and Mapuche areas were opened up for non-Mapuche settlement. The effect of this measure was that the Mapuche now had to “survive in a free-market society in which they lacked the main ingredients for success: economic power, high levels of education, and a mentality favorable to individual entrepreneurship” (Sznajder 2003, p.26).

Chile’s return to democracy coincided with a concern for the social condition of the Mapuche. The Mapuche “were seen as an extreme example of the social costs of the politically authoritarian version of economic neoliberalism” (Sznajder 2003 p. 28) that prevailed during the 1973-1989 military dictatorship. A new Indigenous Law was drafted in 1994 with Mapuche participation. This law created an indigenous development institution (CONADI), recognized the legitimacy of community dispute resolution systems, made discrimination against the Mapuche illegal, promoted native
language education and the protection of cultural heritage. It failed to address the Mapuche’s primary concern of being legally recognized as an indigenous group. The issue of recognition has been the basis of the struggle between the indigenous Mapuche and the state of Chile. The Mapuche have never been officially recognized by the state as a distinct race or group of peoples.

Sznajder (2003) argues that officially recognizing the Mapuche as a people would require constitutional reform. A unified Chilean citizenship is at the core of the 1980 Constitution. Recognizing the Mapuche would require what Sznajder refers to as “deep constitutional reforms”. Prior to 2004, major constitutional reforms were difficult because of authoritarian enclaves of the Pinochet era in the Chilean Senate. However, in 2004 the Chilean Congress introduced constitutional reform that may lead to the end of institutional and life senate seats (El Mercurio 2004).

2.2.3 Neoliberal economic policy

The economy in Chile is considered by many to be a modern Latin American success story. Chile has the highest bond rating in South America (CIA 2003). Between 1984 and 1995, inflation remained below 10 percent and the economy grew at an annual average rate of 6 percent (Clapp 1998). During the military regime of 1973 to 1989, economic measures were adopted that promoted privatization and foreign investment. Measures included abandoning many regulatory functions and liberalizing price structures and the labor market (Altieri and Rojas 1999). Free market economic policies have led to Chile’s 2002 GDP of $151 billion and GDP per capita of $10,000 (CIA 2003). Export of Chile’s natural resources is the primary driver of the country’s success. In 1996, natural resources (primarily minerals, forest products, and salmon) comprised 88 percent of Chilean exports (Corcuera et al. 2002). In 1999, forestry products, primarily chemical wood pulp from plantation forests, comprised 10 percent of Chile’s exports (INFOR 1999, Neira 2002).

Political institutions in Chile still prioritize economic growth over environmental protection. Environmental degradation, particularly pollution in the capital city of Santiago, was an important issue during the transition from military dictatorship. Years
of neglect of the environment, particularly direct impacts on public health such as air and water pollution, are considered to be some of the reasons for Pinochet’s loss of the plebiscite in 1989 (Sheppard 1999, Tomic and Toledo 2000). However, while environmental protection has been a significant campaign issue for every post-Pinochet president, it has always taken a back seat to maintaining the neoliberal economic policies initiated during military rule. If policies for environmental protection are considered to threaten economic development, the economy has consistently received higher priority (Altieri and Rojas 1999, Nef 1995). Patricio Aylwin, the first post-Pinochet president, “declared a commitment to improve the environmental situation [but] his government’s overriding concern for continued economic growth has delayed progress in developing an effective regulatory program.” (Prickett 1992 p.2). Eduardo Frei, the second democratically elected president, promised that development projects would never be cancelled for environmental reasons (Clapp 2001).

Chile’s economic situation has only looked favorable since the mid 70’s, with a major crisis in 1982 during the Latin American debt crisis. Chile is still in the process of consolidating, stabilizing, and diversifying its economy. At the time of this study, Chile’s neighbors; Peru, Brazil, and Argentina were experiencing economic turmoil. All these historical, political, and legal factors influence environmental policy because any policy that challenges economic development has been treated as a lower priority.

2.2.4 Governmental and non-governmental institutions

This section will not attempt to review all the institutions involved in forest conservation, indigenous development, or ecotourism development in Chile. There are many. This section will review the primary institutions that are involved at my study sites.

The primary government institutions affecting native forest management are the National Environmental Commission (CONAMA) and the National Forest Corporation (CONAF). The government institution for indigenous community development is the National Corporation of Indigenous Development (CONADI), and the government institution for rural farm development is the Institute for Agricultural Development
There are many domestic and international non-governmental organizations (NGOs) involved in forest conservation and community-based ecotourism development.

During the Pinochet regime, institutional capacity for environmental policy was weak. Shortly after the transition to democracy, government environmental institutions were created to deal with the environmental problems inherited from the military dictatorship. However, these institutions were poorly integrated, which made consistent implementation of regulations difficult. Shortly after the transition, a United Nations study found that:

"environmental jurisdiction is distributed and dispersed in a multiplicity of public organizations of different rank that operate in an inorganic manner, compartmentalized, with parallelism and ambiguity of functions . . . which makes the application of the norms more precarious. In other words, the absence of clarity and order in the objectives is the cause of an appreciable degree of disorganization (Gallardo 1994)."

While there is no ministry or cabinet level environmental institution, CONAMA was created in 1990 to coordinate national environmental policy and address the problem of integration. CONAMA is a department of the Ministry of Patrimony, considered to be the weakest ministry (Tomic and Toledo 2000). CONAF was created in 1984 with the responsibility for managing all federal forests and approving all management plans on any forest. CONAF is part of the Ministry of Agriculture.

A lack of integration still exists. For example, CONAMA is responsible for approving environmental assessments while CONAF is responsible for approving forest management plans, often for the same projects. There have been cases where one agency has given approval and the other has not (Tomic and Toledo 2000). Chilean environmental institutional capacity is also limited by an implementation gap. CONAF is under-staffed and under-funded, which decreases their effectiveness to monitor forest harvest activity for regulatory compliance (Wilcox 1996, Clapp 1998). In a 4-year study of forestry violations, out of 400 violations, 60 percent were dismissed entirely by the
courts, while the remainder received smaller fines than recommended by the regulatory agencies (Neira 2002). In two separate studies, only twenty to thirty percent of approved forest management plans were being followed (Clapp 2001).

CONADI, part of the Ministry of Planning and Cooperation, was created in 1994 with the mission to implement and coordinate the actions of the state for the economic, cultural, and social development of indigenous communities and individuals. This institution focuses on the restitution of lands and protection of water rights, funding of small-scale economic development projects, and promoting native language education and the preservation of cultural practices. In its first year, CONADI was allocated $4.5 million for the implementation and administration of its programs (Sznajder 2003).

INDAP, created in 1962, was formed to promote the economic development of rural farm communities. Some of its activities overlap with ecotourism development.

Bilateral development organizations involved in ecotourism in the study area include Foundation Chile and the German Development Service (DED). Foundation Chile is a private, non-profit organization founded by the Chilean government and the ITT Company of the United States. Ecotourism is a small part of their overall mission of market innovation and technology transfer. They are involved with efforts to market Chile as an international ecotourism destination and create certification guidelines for nature tourism operators. The goal of the DED, in collaboration with the Chilean government, is to alleviate poverty through sustainable utilization of natural resources. One of their focus areas includes ecotourism. In the study area, the DED places volunteers to train locals in developing ecotourism micro-enterprises.

Three national-level NGOs specifically work with forest conservation issues. They are the National Committee for the Defense of Fauna and Flora (CODEFF), the National Network of Ecological Action (RENACE), and Defenders of the Forest. All three work at the national, regional, and local levels of government. CODEFF was formed in 1968 and predates the Pinochet regime. It is fairly well respected by society and the government. Following the transition to democracy, CODEFF was the primary player in developing draft native forest management legislation.
International environmental NGOs involved in forest policy in Chile include the World Wildlife Fund (WWF), Conservation International, and Ancient Forests International. These organizations have provided important technical expertise and have drawn international attention to the forest resources of Chile. The WWF is actively involved with financial and technical support of community-based ecotourism projects in the study area. Ancient Forests International was instrumental in the development of one of the ecotourism project sites, as well as helping to form a Chilean NGO, Foundation Lahuen. Foundation Lahuen was the first Chilean NGO dedicated exclusively to forest conservation, and operated one of the project sites for nearly 10 years.

The Coastal Range Coalition is a coalition of regional and local NGOs and community organizations in the study area. Their mission is to promote and defend the environmental and cultural values in a part of the study area.

Another NGO involved in the study area is International Model Forest Network (locally called Bosque Modelo, or Model Forest). The mission of Bosque Modelo is to promote sustainable forest management at the local level. This organization forms partnerships with local and national governments and other NGOs to provide financial and technical support for small-scale local projects. Bosque Modelo was formed in 1992 at the United Nations Earth summit in Rio de Janeiro by the government of Canada.

Non-governmental organizations (NGOs) play a vital role in sustainable forest policy, environmental conservation, and community development. These organizations affect policy by: public education, technical evaluation of environmental impacts, raising issues and drawing public attention (often through the media) to environmental problems, protest, litigation, and helping draft policy when given access to governments. They help communities by providing technical expertise and financial assistance to develop small enterprises.
3. Field Methods

The primary mechanism for my research was a questionnaire presented to visitors at national parks and a campground in the study area. Four sources guided the questionnaire design and its analysis. The first two sources are the background material on ecotourism and politics discussed in the previous section. This background material provided the context for understanding the motivations, constraints, and opportunities for ecotourism development in the study area. The third and fourth sources are the results derived from qualitative data in the form of observations and interviews collected in the study area. This section describes the study area and sites, and then the methods used for collecting and analyzing both the qualitative and survey data.

3.1 Study area and sites

All study sites are within the Valdivian Temperate Forest ecoregion, a portion of which is shown in Figure 3.1. (Ancient Forests International 2003) This ecoregion encompasses the forested areas of Chile between approximately 35° and 48° South latitude, bounded on the west by the Pacific Ocean and the east by the western slope of the Andes Mountains. This ecoregion was delineated by international and Chilean researchers and the World Wildlife Fund (WWF 2001, Daniele and Natenson 1994, Gajardo 1994, Veblen et al. 1983, Cabrera 1976, Morello 1968). This ecoregion is characterized by high levels of endemism due to its biogeographic isolation. Seed plants approach 90 percent endemism (Villagran and Hinojosa 1997). Vertebrate endemism includes 50 percent of fishes (26 species), 80 percent of amphibians (30 species), 36 percent of reptiles (16 species), 30 percent of land birds (44 species), and 33 percent of mammals (33 species). Invertebrate endemism also is assumed to be high, but is incompletely documented (Arroyo et al. 1996, Rozzi et al. 2000).
Figure 3.1. Study area, project and survey sites
Major geographic features are the Coastal Range, with mountains heights to 1,300 meters, the Andes, with mountain heights to 3,000 meters, and a central valley in between. Soils of the Andes are young and typically of volcanic origin while soils of the Coastal Range are extremely weathered and have not been significantly altered by Pleistocene glaciation (Veit and Garleff 1995).

Both domestic and international conservation organizations consider the Valdivian Temperate Forests a high priority for conservation because of the occurrence of high levels of plant and animal species endemism, critical ongoing threats to biodiversity, and the survival of large tracts of unfragmented native forest. Conservation International considers this ecoregion one of the 25 highest priority conservation targets on the planet. The most significant biodiversity conservation concern is the conversion of native forest to plantations of Monterey pine \((\text{Pinus radiata})\) and Eucalyptus \((\text{Eucalyptus sp.})\) to support a growing forest products export industry. Conversion of native forest decreases biodiversity (Armesto et al. 2001).

The primary economic activities of this region are livestock production, fishing, fish farming, forestry, and tourism (Instituto Geográfico Militar 2002). The area is also known to have a rich cultural diversity, which includes groups of indigenous peoples and settlers from many different countries.

Project and survey sites are shown in Figure 3.1. Project sites are developing or operating ecotourism enterprises and survey sites are locations where I conducted the market survey.

I chose the project sites based on the recommendations of local conservation organization leaders. An additional site (Cañi Nature Sanctuary) was chosen because it is the ecotourism enterprise with the greatest longevity in southern Chile. Survey sites were chosen for their proximity to the project sites. A short description of each site follows.

### 3.1.1 Quinquén

The indigenous Mapuche community of Quinquén is surrounded by native forests of Araucaria \((\text{Araucaria araucana})\) and Lenga \((\text{Nothofagus sp.})\) and has a popular tourist destination called Galletué Lake. Chilean tourists have been visiting this area for 15
years. In 2001, the community developed an 8-site campground by the lake. The community has future plans to offer horseback trips and lakeshore activities. During the 2001-2002 tourist season, approximately 300 people visited this campground. The community of Quinquén also owns a hostel in nearby Lonquimay, where most of the visitors learn about the community and the camping facilities. An important source of local income is the sale of food items and handicraft souvenirs to the tourists that visit Lonquimay and Quinquén.

3.1.2 Huerquehue National Park

Huerquehue National Park covers 12,500 hectares of mountainous terrain, lakes, streams, and temperate forest in the Andes. The most notable species is the Araucaria. This park is 33 kilometers from Pucon, one of the most popular destinations in Chile for adventure and nature tourism. The majority of the visitors to this park are day-visitors from Pucon. In 2001, there were 12,330 visitors to this park, 54 percent of whom were Chilean.

3.1.3 Cañi Nature Sanctuary

This sanctuary, located near Pucón, is one of the first community-based ecotourism projects in Chile. It has been operating for over 10 years. This area has significant tracts of pristine Araucaria forest. A group of Chilean and North American conservationists purchased the reserve to protect it from logging interests and were instrumental in financing and marketing initial ecotourism efforts. Foundation Lahuen managed this site when tourists first arrived in 1991. The foundation turned the project over to local guides in 1999, who formed a small private business. These guides offer nature hikes and educational programs. The majority of their trips are groups of day visitors from Pucón. During the 2001–2002 tourist season, they had approximately 500 visitors. To complement their guided trips and provide work during the winter, the guides operate a greenhouse that sells native plants. The most significant avenue of promotion for the Cañi Sanctuary is a popular travelers hostel in Pucón. It is also written
up in *The Lonely Planet Chile and Easter Island* (Bernhardson 2000), one of the most popular travel guides for foreign ecotourists in Chile.

3.1.4 **Trafunco los Vados.**

This indigenous Mapuche community has a similar setting as the communities of Mapu Lahual. With the assistance of domestic and international conservation organizations, they have conducted guide training seminars, developed a small campground, and built a community meeting hall.

3.1.5 **Mapu Lahual Communities**

This site consists of several indigenous Mapuche communities scattered along the Pacific coast. The first community, Maicolpue, is accessible by road. The other communities are accessible only by boat or on foot. The people of these communities make a living by fishing, raising livestock, and cutting shingles of the Alerce (*Fitzroya cupressoides*). The community of Maicolpue has been operating a campground for four years. The other communities are interested in developing a guided backpacking trail along the coast.

3.1.6 **Alerce Andino National Park**

Alerce Andino National Park covers 40,000 hectares of temperate rainforest in the Andes. Rugged terrain in Alerce Andino, which extends from sea level to 1558 meters, protects some of the last large stands of Alerce. In 2001, there were 5,717 visitors to this park, of which 71 percent were from Chile.

3.1.7 **Cochamó Valley**

Cochamó Valley, in the Andes, is a largely unfragmented area of temperate rainforest. Large tracts of Alerce can still be found. Rock climbers that are increasingly visiting this area refer to it as “the Yosemite of Chile” because of the sheer rock walls and stunning scenery.
Small-scale ecotourism development was started in the Cochrán Valley four to five years ago. The German Development Service, a bilateral sustainable development agency, has helped local organizations and governments create a brochure and map of the area. They have also held seminars to train local people how to conduct their own small tourism businesses. Horseback riding is a popular activity in the area, along with hiking, rock climbing, camping, fishing, and rafting.

3.1.8 Chiloé National Park

Chiloé National Park covers 45,000 hectares of coastal temperate rainforest. It is the only protected area in the Coastal Range of significant size within SNASPE (Armesto et al. 1996).

In 2001, there were 8,566 visitors to this park, 71 percent of which were from Chile. Several indigenous Mapuche communities surround Chiloé National Park. These communities offer tourist services such as camping, horseback riding, cultural events, guiding, provisions, and handicraft souvenirs. The park has worked with the communities to share the benefits of the tourism market. For example, one of the most popular overnight hikes in the park is to Cole-Cole beach, where the indigenous community of Huentemó manages a basic campsite. Another example is a cafeteria at the park entrance, managed by a group of local women that offers fresh-baked goods and handicraft souvenirs. The park and communities are also considering offering locally guided horseback trips in the park.

3.2 Observations and interviews

I spent the first two months of my field research at the regional office of the World Wildlife Fund (WWF) in Valdivia. This office funds and provides technical support for ecotourism development in the Mapu Lahual, Trafunco los Vados, and Quinquén communities. These activities complement their primary mission of promoting native forest biodiversity conservation in Chile. During this time I made contacts with government agencies, ecotourism projects, and other conservation organizations.
During my time in the regional conservation offices and when I visited ecotourism project sites, I kept a field journal to record my observations. My observations focused on the types of activities and services that projects wanted to develop, and the expectations of both community members and conservation organization leaders.

Interviewees were chosen based on the principles of snowball and opportunistic purposeful sampling as outlined in Patton (2002). I purposefully chose interviewees that had experience with ecotourism and could provide key insights into its development in the study area. I used three methods to contact and choose interviewees: directly with the WWF as a reference, opportunistically as I met key-informants during my travels to and within project sites, and through chains of references that usually started with an interviewee. Interviewees would often recommend that I talk to one of their colleagues to gain further insight.

I conducted both taped and non-taped interviews. Before all interviews I presented myself as a student researching ecotourism. All interviewees had personal experience with ecotourism and were familiar with its basic concepts. I informed my interviewees that I was collaborating my research with the WWF. They were all familiar with the activities of this organization.

Non-taped interviews were conducted when the opportunity arose, were informal, and unstructured. These interviews usually occurred when I thought pulling out a tape recorder would make the interviewee less comfortable. I recorded the data in a field journal after the interview. Taped interviews followed a loose interview schedule. I used a semi-structured format so I could change the order and types of questions to make them appropriate for each interview. All taped interviews were subsequently transcribed.

All observations and interviews were conducted by myself and with the assistance of my wife, a native Chilean. All interviews were conducted in Spanish, unless the interviewee preferred English.

Observation and interview data were not systematically reduced. I used inductive content analysis, as outlined by Adler and Clark (1999), of my field notes and transcribed
interviews to identify common themes shared by both community members and conservation planners. My primary goal was to identify the pertinent questions that a market survey should address. A secondary goal was to identify the interviewees' expectations of how ecotourism could benefit communities and biodiversity conservation. All themes were identified by myself and my field assistant.

The interview procedure was approved by the Institutional Review Board of the University of Alaska Fairbanks. The purpose of this board is to protect the rights and welfare of human participants in research.

3.3 Surveys of ecotourists

In addition to the four sources already mentioned that guided survey design and analysis, I used examples of previous ecotourist surveys presented in the literature or found on the internet, and the suggestions of the staff of the regional office of the WWF. I failed to find any ecotourist market studies for southern Chile. This was also confirmed by the WWF and a tourism researcher in Chile. Therefore, I used the market studies presented in the background section, along with others (Government of Yukon 1999, Snow Leopard Conservancy 2001) to design my questionnaire.

I used the background information and common themes that emerged from analysis of my qualitative data to develop questions that would be directly applicable to ecotourism in the study area.

The staff of the WWF in Valdivia helped identify the important questions they believed a survey should address. We focused on specific questions that would inform their efforts at developing community-based ecotourism projects that would be eventually financially sustainable and promote native forest biodiversity conservation. They reviewed the survey questionnaire numerous times and offered suggestions. However, the final survey design was solely my creation.

I decided to survey national park visitors for two reasons. I assumed they are the potential market for ecotourism projects, and they are an accessible pool of respondents
whose travels are primarily motivated by visiting natural environments. I surveyed a sample of these park visitors.

The locations were chosen due to their proximity to proposed or ongoing ecotourism projects. The actual projects themselves do not currently draw enough tourists, with the exception of the campground at Quinquén, to make it practical to survey exclusively those sites.

All respondents were at least 16 years old and were financially responsible for their current trip.

A pilot survey was conducted at the Cañí Nature Sanctuary near Pucon to guide development of the full survey.

I decided to conduct the survey during December, January, and February. This is the height of the domestic tourist season. It is also the height of the operating season for all of the proposed and current ecotourism projects I visited.

The full survey consisted of six open and twelve closed questions. Five of the closed questions required scaled responses, or “Likert”-type responses that ranked an item on a scale between one and five. Multiple parts of questions added up to provide eighty-six potential responses from each participant.

The participant was given the option of filling out either the identical English or Spanish versions of the survey. I prepared the English version. My bilingual research assistant translated the survey to Spanish. Two other bilingual Chileans and one bilingual North American, all of whom work for the WWF in Valdivia, rechecked the Spanish translation.

My assistant and I contacted survey respondents at either popular trailheads or the park visitor centers. Because there are no similar focal points at the campground in Quinquén, we contacted these respondents by visiting them at their campsites.

Both the questionnaire and survey procedure were approved by the Institutional Review Board of the University of Alaska Fairbanks.
I used two approaches to analyze the data; the Salient Questions Approach and the Cluster Analysis Approach. The Statistical Package for the Social Sciences (SPSS), version 12.0, was used to analyze all data.

The Salient Questions Approach addresses the first research question presented in the introduction to this thesis: do the preferred activities and experiences of the market match the activities and experiences that the projects are developing? The activities and experiences that projects are developing are identified from the qualitative data collected for my study. I use the survey to identify the preference level of respondents for the same activities and experiences. The demographics and spending levels of the groups are provided to help direct marketing and estimate financial benefits.

The Cluster Analysis Approach addresses the second research question presented in the introduction: how do the travel motivations of the tourists that prefer the activities and experiences identified in the first approach compare to the motivations outlined in the definition of ecotourism? This approach uses cluster analysis to place all survey respondents in categories that maximally distinguish the relative strengths of their ecotourism-type travel motivations. The IUCN definition of ecotourism is used to define ecotourism-type travel motivations. Once categories are defined, the preferences of each category are compared to the preferences for the activities and experiences identified in the Salient Questions Approach.

Before conducting a cluster analysis, three important questions need to be addressed: which variables will be used to create the clusters, which clustering method will be used, and how many clusters should be created.

To determine the clustering variables, the 35 scaled-response questions were broken down into the following five categories:

1. Travel motivations (9 questions)
2. Travel activities (9 questions)
3. Preferences for specific natural or cultural features (6 questions)
4. Trip planning (7 questions)
5. Opinions about conservation, communities, and tourism (4 questions).
Because clusters are meant to help define ecotourist categories, and travel motivations are the most important variables that define ecotourism, eight of the nine motivation questions were chosen as clustering variables. The ninth question, which asked for a preference for “uncrowded areas”, was not used because it would add a cultural bias to the results. In other words, I assumed the strength of ecotourist characteristics to be unrelated to crowding.

A consideration of the IUCN definition of ecotourism also justifies the choice of the eight variables. To determine the items most important to ecotourism, the definition of ecotourism presented in the background section was broken down into its constituent parts. The IUCN definition of ecotourism:

Ecotourism is environmentally responsible travel and visitation to relatively undisturbed natural areas, in order to enjoy and appreciate nature (and any accompanying cultural features – both past and present) that promotes conservation, has low negative visitor impact, and provides for beneficially active socioeconomic involvement of local populations (Epler-Wood 2002, p 9)

Ecotourism is environmentally responsible travel and visitation to relatively undisturbed natural areas...
Survey responses chosen to typify this component are the preferences to visit “natural areas such as parks and reserves” and “pristine landscapes/wilderness settings”.

in order to enjoy and appreciate nature...
The preferences for “nature observation” and “unique or endangered plants or wildlife” were chosen to typify this component.

and any accompanying cultural features – both past and present...
The preference for including “indigenous or rural cultures” in travels was chosen to typify this component.
that promotes conservation...

The response item chosen to typify this component was preference for traveling to “areas important for conservation”.

and provides for beneficially active socioeconomic involvement of local populations.

For defining clusters, only motivations and preferences were considered. Subsequent analyses consider the economic factors in greater detail. In other words, factors such as spending activities of tourists are only used to profile the tourists comprising the clusters, not in defining the clusters. Therefore, the response item chosen to typify this component of the ecotourism definition was a preference for “travel that provides benefits to local communities”.

The above definition does not include an educational or interpretive experience. The literature review shows that these are also important motivational preferences. Therefore, “interpretive education opportunities (learning about local nature)” was included in the test to define clusters.

The choice of clustering method was dictated by the limitations of SPSS. In SPSS, hierarchical cluster analysis is limited to 200 cases. My data set was greater than 200, so I used a non-hierarchical k-means cluster analysis. I decided not to use ipsative transformations because it would give equal weight to lower and higher scores in certain situations. For example, if a respondent answered one or two on certain scaled-response questions, then their ipsative-transformed scores would be equivalent to a respondent that answered in the same pattern with four or five. Therefore, by not computing ipsative transformations I am assuming that all respondents considered rank scores equivalently.

A k-means cluster analysis was computed specifying three, four, and five cluster groups. I decided two groups were too few to make meaningful narrative and quantitative comparisons. I compared three, four, and five cluster groups and decided to use three-group clusters for subsequent analyses. The justification for using three-group clusters is provided in the survey results section.
4. Qualitative results

All qualitative data were collected between October 2002 and March 2003. Following are the most common themes that emerged from analysis of the qualitative data. Analysis of the qualitative data shows that conservation planners and community members have expectations about ecotourism that generally conform to the guidelines presented in the case study literature. The names and affiliations of my interviewees are in Appendix A.

4.1 Market research is needed

Rick Klein, a North American with Ancient Forests International, has been involved with community-based ecotourism development in the study area longer than any other interviewee. His opinion of the available market is that:

“I would hate to create a market. You have to start with something that is already known.”

Southern Chile has an international reputation for eco- and adventure tourism. Tourists travel over much of the region during the busiest months of January and February. The majority of my interviewees share Rick Klein’s opinion. They believe the best option for these enterprises is to deflect the current tourism market that exists in southern Chile. In particular, they believe that visitors to national parks and the popular adventure tourism destination towns, like Pucón, will be the available market.

The majority of the conservation planners I interviewed also stated that the most pressing research need was a market study of ecotourists. Ecotourism development was already occurring, but market research would help inform communities in developing enterprises that would meet market demands.

Observations and interviews identified the most important questions that a market study could answer. They are:

1. What kinds of accommodations and activities do the tourists prefer?
2. How much money would they spend for different accommodations and activities?

3. What is their general profile?

4. How flexible are they with travel plans? Particularly, are they the adventurous types that can handle challenges such as poor weather or do they want to have a "packaged-trip" type of experience?

5. How important is it to visit national parks?

6. Do tourists seek activities that support the dual goals of ecotourism? For example, would a certification scheme affect their travel choices?

My interviewees most experienced with ecotourism, particularly the Cañi Sanctuary, also mentioned consistent marketing of ecotourism products. The Cañi Sanctuary has the longest history of any community-based ecotourism project in this part of Chile. The Cañi is near the town of Pucón, which is one of the most popular ecotourism destinations in southern Chile. Therefore, significant competition for the ecotourist market occurs there. In separate interviews, both Manuel Sanguesa, a Cañi guide, and Rick Klein explained the importance of consistent marketing in drawing tourists. Their most successful marketing techniques are to contact potential visitors in-person or through signs posted at a popular hostel in Pucón. Whenever marketing efforts have slowed down, the number of visitors to the Cañi has slowed down as well.

“It’s all marketing and having the product. It’s all marketing. It takes a lot of energy to keep the marketing flowing.” – Rick Klein

4.2 Ecotourism can replace or reduce activities that threaten biodiversity

The most significant threat to biodiversity in this region of Chile is the conversion of native forests to monoculture plantations. When asked to describe the typical scenario for the conversion of native forests, all my interviewees explained that when the roads arrive and remote communities become more accessible, there are more opportunities to sell private land to the plantation forestry companies. Dorit Maucke and Silke Goethe, volunteers with the German Development Service, summarized the effect this has on rural communities:
“Our project gives alternatives. The road comes, and people sell their forest. They may spend it right away, go to the city and try to find jobs. That’s the usual way it goes. Just increasing the poverty.”

Selling private land is often seen as an attractive short-term economic alternative because native forests offer limited options for making an income. Most rural communities use native forests for obtaining firewood or use the lands to graze livestock.

“There aren’t many productive options out there. People generally aren’t making a living off of native forest”. – David Tecklin, WWF

Ecotourism, however, is considered by both conservation planners and community members as a clear alternative to the exploitation of native forests.

“If there isn’t a source of work [from ecotourism] the people can return to working in forestry to live.” – Lorenzo Melinir Nanco, Quinquén community member

I asked Sergio Melinir, a community leader from Quinquén, how ecotourism could benefit his community. He offered a comparison of the two options facing the community; investing time, money, and energy into running a campground for tourists or starting a small mill and supplying it with local timber. Community members believe that only 10 percent of the original forest remains. Sergio believes a mill would be more successful financially, but exploit more forest. On the other hand, he believes a campground would bring in less money but cause less impact on the forest. In his words, “the campground is a form of protecting the environment”.

Ecotourism also has the potential of encouraging land owners to keep the native forest on their lands intact. All my interviewees realize that the ecotourists want to see unexploited nature. When asked what would be a key ingredient for a successful ecotourism enterprise, Alicia Infante, from the community of Quinquén replied:
"The tourists come to see nature, if the community exploits the environment, the tourists will not want to come."

A common theme that conservation planners mentioned was that native forest exploitation and ecotourism activities occur in the same season. For example, many Mapu Lahual community members earn income by cutting shingles of the endangered Alerce. Because of the remoteness and working conditions in these communities, these activities only occur in the summer. Tourism in Chile reaches its peak in the summer, also.

"However, there is a thing more practical. Tourism coincides with the same season as forest exploitation... The energy of the community in ecotourism activities lowers the pressure for forest exploitation, because they are in the same season." – Francisco Solis, Coastal Range Coalition

4.3 Ecotourism development will promote higher valuation of native forests

Another conservation benefit of ecotourism is to increase the value, in the eyes of the community members, of maintaining native forests. The Cañi Sanctuary is a good example of how the presence of an ecotourism enterprise has increased the conservation awareness of the local community. When I asked Manuel Sanguesa, a Cañi guide from the local community, how ecotourism could benefit conservation, he replied:

"The Cañi has been useful for developing a conscience of the people. The people didn’t even know the word conservation. Actually [now] there is a good relationship with the neighbors of the Cañi, who help to protect the place."

He believes that educating young people is the most important way to realize forest conservation. When tourists come to the Cañi, their money helps support the educational efforts. The Cañi offers guided trips and educational programs to local schools. If the schools can pay, they pay. If they can’t, the Cañi absorbs the cost.
Through the development of ecotourism, community leaders have increased contacts with organizations outside of their community, as well as other rural and indigenous communities in Chile. Often visiting more impoverished communities that practiced poor land management, or have been exploited in some way, reinforce what they already know about the value of sustainable forestry. When asked what community members know about the effects of forest conversion, replies included;

“Pure appreciation of the community for what they have. For example, taking folks from Mapu Lahual to other areas that no longer have forest and they are shocked.” – David Tecklin

“In the other communities, the Mapuches took the money in the moment, but they didn’t measure the consequences of indiscriminate cutting of the forest. The pine nut is gone and now they have nothing. The Mapuches sold their land and their forests, and now they are poor, and they only have dust” – Alfredo Melinir, Quinquén community leader

“They [forest companies] say they will pay 10 million pesos [approximately $15,000]. Sure, 10 million pesos would serve me well, but how long will it last? And after I will have to live without a forest. But the Araucaria gives me pine nuts every year; it maintains me and my children.” – Sergio Melinir, Quinquén community leader

Ecotourism can provide incentives for communities to re-evaluate the economic and non-economic value of their “natural capital”.

“They can effectively convert an economic activity into a way to reinforce the idea of conservation and not to make firewood or sell the wood, they can be more successful and permanent” – Yeyse LeBreton, Agricultural Development Institute
In many communities, especially indigenous communities, a strong sense of conservation already exists. I asked my interviewees about their views towards conserving native forests:

“They [forestry industries or non-Mapuche people] are against the forest, against the nature, and the Mapuche never think that way. The Mapuche always think of his son today and his grandson tomorrow…The Mapuche have never cut the Araucaria, only when it fell next to the road because the wood is hard. For fires and construction they use Lenga. The forest companies came and cut everything. They don’t respect anything.” — Alfredo Melinir

“At the same time, ecotourism can reinforce the cultural identity and strengthen community organization.” — Francisco Solis

4.4 Ecotourism can provide limited financial benefits

The conservation planners I interviewed were unanimous in their belief that ecotourism could only represent a seasonal, alternative economic activity. Many of the areas considering ecotourism development have very limited tourism potential in the non-summer months, because of inclement weather and a seasonal market. The sites along the coast receive abundant rainfall, and the Andes sites often have deep snows in the winter. Most tourist activity in this region is during December, January, and February (the austral summer).

However, these interviewees also believed that not a lot of income needs to be generated to make ecotourism development worthwhile. Many of these communities are poor or have semi-subsistence lifestyles. I asked how much income would need to be generated to provide financial benefits to communities:

“positive aspects of all this is that to promote sustainable uses you don’t have to provide options that give a lot of income” — David Tecklin
"But these people are so poor that if they get 3 groups of 3 people to do a hike for 3 days, that’s more than they earn in 6 months. A typical wage in the area is about 5,000 pesos per day. But if they rent one horse that’s 10,000 pesos. And then the guide is 15,000 pesos per day. Even if they get one or two groups, that’s good. You are not getting rich, but it’s a much easier way to make money" — Elisa Corcuera, Chilean volunteer in Cochaló Valley

David Tecklin, Francisco Solis, and community members of Quinquén mentioned that a very important income opportunity was for local people simply to sell food, fresh-baked items, milk, and handicrafts to tourists. The simplicity of this avenue is that it requires little to no training, relies on personal initiative, and can involve many more people.

“This income [from the campground] is small in comparison to the other services they provide like food, milk, firewood, etc.” — David Tecklin

“To include more community people in the project they have the possibility to sell cheese, eggs, bread, tortillas [to tourists]. Then, the people are involved in an independent way. We did this last year and the people are enthusiastic” — Alicia Infante

4.5 Ecotourism can provide indirect benefits for communities

From community members I consistently heard that they are interested in ecotourism to provide a better standard of living and to have safer and easier jobs. Although financial benefits were certainly desirable, these interviewees often mentioned the indirect benefits of ecotourism development such as job training and establishing contacts with organizations sympathetic to their causes.

“We want to improve the quality of life, so we can educate our children” — Alfredo Melinir
For the people I met in Quinquén, they see more education as a means of improving their future. This community has a history of contentious, and sometimes violent, conflict with the forestry companies and the government. They mentioned how in the past it was easy for the forest companies and the government to take advantage of them because they were uneducated and didn’t speak Spanish. But now that they speak Spanish they can see alternative futures to selling their forests. They feel more equipped to make informed decisions about their natural resources. They mention that ecotourism development projects are important sources of educational opportunities.

As part of the ecotourism development process, rural communities receive training and technical assistance. Even if an enterprise isn’t eventually successful, these communities are better trained and educated to try something else. When I asked David Tecklin about the chances for success for the campground in Quinquén, he said, “if the camping in Quinquén flounders, the community is better positioned to do other things”.

4.6 Ecotourism development takes a long time

I asked interviewees to describe the key ingredients for developing a successful ecotourism enterprise. Elisa Corcuera, a Chilean, is a Private Lands Conservation Specialist trained in the United States. She works as a volunteer with families in Cochemó Valley to develop small-scale ecotourism businesses.

“You need very slow, and very long-term relationship building. And that’s what I want to do. I’ve been going to all the parties and bingos and have slowly met some families who are willing to work with us” – Elisa Corcuera

The people I interviewed agreed that ecotourism development is a very slow process. David Tecklin described how funding organizations often feel pressure to show immediate results to please donors, but that community-based rural ecotourism is not the type of enterprise to show quick results. Many of the target communities for ecotourism development have a culture and pace of life that is significantly different from the tourist
or market economy. Most of these communities are only partially integrated into mainstream economic activity. Many of their basic needs are met through a partial subsistence lifestyle. And the communities that are integrated into the economy are usually on the poorest end of the scale. Therefore, rapid change, and especially economic change, can potentially disrupt long-established social and cultural norms.

The German Development Service (DED) has been working with the rural community of Cochamó since 1998. In the interview, they mentioned that it takes between 3 and 5 years of work before substantive results can start to be seen. I asked them about some of the frustrations with ecotourism development.

"On one side it's difficult to train people. For example, the education level is low and they need like 3 years to learn how to determine a price" – Dorit Maucke and Silke Goethe

The challenge of showing results from ecotourism is further compounded by its seasonality and the remoteness of some of the communities. Remoteness reduces the available time to conduct training seminars or build infrastructure. Dorit Maucke and Silke Goethe described the challenges of coordinating a training date when many of the participants don’t have a phone and are up to 3 days travel by foot or horse. When the date is settled and arrives, it may rain and make the trail impassable, losing that training opportunity for the entire season.

4.7 Impacts of ecotourism are less than other development options

Conservation planners recognize the potential negative impacts of ecotourism that were outlined in the background section of this thesis. Ecotourism is seen as an activity that will have impacts on both biodiversity and communities.

However, a common belief is that the impacts of ecotourism are less than other development activities. The primary alternative development activities are conversion to plantation forest, continued Alerce harvest, and road building. I asked my interviewees about their opinions on the impacts and benefits of ecotourism development.
"The environmental goals have identified which activities are relatively more sustainable than others... The impacts that tourism will have will be much less than intensive forestry... With the idea of ecotourism, there is no belief that it is the only solution, or a panacea. The idea is to diversify the productive economic activities of families and communities." – Francisco Solis

All of the conservation planners I interviewed talked about the potential of ecotourism, but none want to rely solely on ecotourism to try to meet conservation goals. David Tecklin summarizes well the common sentiment among conservation planners.

"Ecotourism, ignoring its potential impacts, has lots of limitations as an economic alternative. So we want to be careful about overselling it. However, we are putting more into ecotourism because there are not a lot of alternatives. So if you compare the limitations of ecotourism with other strategies, all the other forest uses share similar limitations. Our approach is to never promote ecotourism as the solution, just as one complement to a whole series of other activities.” – David Tecklin

Rick Klein has been involved with ecotourism development in this part of Chile for over 10 years. He is enthusiastic about its prospects to involve rural families and communities in conservation efforts. However, at times it is a daunting task because of the limited economic alternatives in the native forests. In our interview, he described how conservationists can work for years to get community support and then everything can change on a whim, or be influenced by local politics, development pressures, rumors, and gossip. When asked about the frustrations of ecotourism development, he replied,

“IT's disappointing because some people change their minds. Social pressure, employment, money. Sometimes they are told that if they want a
certain job they need to stop siding with the gringos [conservationists] and get on their [the developer's] side."

4.8 Community members expect to benefit from offering guide services

When asked which ecotourism activity would provide the greatest financial benefits, interviewees talked about guide services such as horseback rides, and single- and multi-day nature walks.

“If you can get horses involved, then the experience is more attractive, and you add more value to the trip and more money staying with the locals” – Rick Klein

Community members have high expectations of the potential benefits of providing guide services. Financially, it is the best deal for many ecotourism projects. As mentioned earlier, a guide needs only to conduct a few horseback trips in a season to realize significant financial benefits.

However, the Cañi Nature Sanctuary is a good example of an enterprise that focuses on guide services. Since the inception of guided trips in 1995, 32 local people have been trained to be guides. Only a fraction of those guided at the Cañi and now two remain. For these two, guiding is their full-time occupation during the tourist season. While they receive sufficient income, the project still needs outside technical and financial assistance to operate. In the off-season, these guides seek other employment.

4.9 Project failures are attributed to poor leadership and organization

I asked my interviewees what are the most significant factors that can cause an ecotourism enterprise to fail. Lack of strong community leadership and poor organization were the most commonly mentioned factors.

“The [projects] that have failed have a core problem of organization. Trust among members that communicate well and have good leaders” – David Tecklin
Yeyse LeBreton, who works with a struggling ecotourism project in the Coastal Range, attributes past difficulties to discontinuous project leadership and a general lack of community organization.

Interviewees pointed out how strong leadership and organization help to resolve local conflicts over how to manage or distribute the benefits of an enterprise. I observed a local conflict when I visited the community of Maicolpue, one of the Mapu Lahual communities. I received permission from the director of one of the community organizations to conduct surveys of tourists in a local campground. Upon arriving, I met the leaders of another community organization that did not permit me to conduct my surveys. They felt their organization had been cut off from the financial and technical assistance of funding organizations. At this site, there was more than one community organization that claimed to represent the community.

Rick Klein talked about how good leadership can also help resolve resource use conflicts. His cited the Cochamó Valley as an example, where my interviewees blame proponents of forest conversion for generating conflict between conservation organizations and the communities, claiming that the conservation organizations only want to “lock up” the land and prohibit any form of economic development.
5. Survey results

5.1 General results

We collected 298 surveys between December 2002 and February 2003. The complete survey form is in Appendix B. One-hundred and forty-seven were collected at Chiloé National Park, 98 at Huerquehue National Park, 34 at Alerce Andino National Park, and 19 at Quinquén. The response rate was 88 percent. Figure 5.1 compares the proportion of surveys collected at each location to historical visitor data. Historical data is from 2002 for Quinquén and 2001 for the three national parks.

![Figure 5.1. Comparison of collected surveys to historical data (n = 298).](image)

To determine if the discrepancies in representation shown in Figure 5.1 would affect my results, I compared weighted and unweighted key survey statistics. The weighted statistics are adjusted to reflect the historical representation of each site to the population total. The population total is all visitors to the four sites during the summer operational season: December, January, and February. The statistics compared are the means for age, group size, trip duration, and scaled-response scores. Accommodation
preference and the resident countries of respondents were also compared. There were no differences between the results derived from any of these statistics using weighted or unweighted scores. The most noticeable differences between weighted and unweighted key statistics are the representation of resident countries in the survey sample, which is shown in Figure 5.2. Seventy percent of the visitors to Chiloé, Alerce Andino, and Huerquehue National Parks in December, January, and February 2001 were Chilean. For this analysis, I chose to report unweighted statistics because the key statistics did not differ, and the proportion of Chileans represented in the survey is closer to their historical proportion of park visitation than by using weighted data.

![Diagram showing resident countries of respondents](image)

**Figure 5.2. Resident countries of respondents (n = 298).**

Survey respondents were from twenty-one different countries. I aggregated all respondents into the country categories shown in Figure 5.2. Israelis were placed in a single category because there are tour agencies and accommodations that specifically cater to Israeli tourists. The respondents from Australia, New Zealand, and other South American countries were placed in the same category as Europeans because by themselves they had small sample sizes. From this point forward this country category is referred to as Europe and others.
The mean age for all respondents was 32.3 years with a range of 16 to 70 years and a standard deviation of 12.4 years (n = 295). The mean trip duration was 11.8 days with a range of one to 42 days and a standard deviation of 7.5 days (n = 290). Analysis of variance showed no difference (P > 0.10) between country categories in the means for age and trip duration. The mean travel group size for all respondents was 3.6 (n = 279), and the mean travel group size for Chileans was different that other country categories as shown in Table 5.1. Table 5.2 presents the spending activities by country category. Chileans spent the least while the respondents in the category of Europe and other countries spent the most.

Table 5.1. Mean group size (n=279).a.

<table>
<thead>
<tr>
<th>Country Category</th>
<th>Chile</th>
<th>Israel</th>
<th>USA and Canada</th>
<th>All Respondents</th>
<th>Fb</th>
<th>Pb</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2.7</td>
<td>4.5</td>
<td>2.4</td>
<td>2.3</td>
<td>3.6</td>
<td>14.652</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Extreme data outliers (10 cases) were eliminated from this calculation.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. One-way ANOVA indicates whether a difference exists between the means for the 4 country categories. A Tukey post-hoc test (P &lt; 0.05) indicated that the mean for Chileans differs from the others.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 5.2. Mean spending per person per day in Chilean pesos.a.

<table>
<thead>
<tr>
<th>Spending categories</th>
<th>Europe and other countries (n=51)</th>
<th>Chile (n=65)</th>
<th>Israel (n=9)</th>
<th>USA and Canada (n=21)</th>
<th>All respondents (n=146)</th>
<th>Fb</th>
<th>Pb</th>
</tr>
</thead>
<tbody>
<tr>
<td>total spending</td>
<td>24,300 (n=63)</td>
<td>13,820 (n=105)</td>
<td>15,810 (n=12)</td>
<td>18,500 (n=27)</td>
<td>17,740 (207)</td>
<td>8.599</td>
<td>0.000</td>
</tr>
<tr>
<td>accommodations</td>
<td>8,980</td>
<td>4,760</td>
<td>3,770</td>
<td>7,380</td>
<td>6,550</td>
<td>4.709</td>
<td>0.004</td>
</tr>
<tr>
<td>entrance fees, guide services, tours</td>
<td>3,150</td>
<td>1,610</td>
<td>2,770</td>
<td>1,470</td>
<td>2,200</td>
<td>3.416</td>
<td>0.019</td>
</tr>
<tr>
<td>handicrafts and souvenirs</td>
<td>680</td>
<td>1,760</td>
<td>110</td>
<td>210</td>
<td>1,060</td>
<td>2.979</td>
<td>0.034</td>
</tr>
<tr>
<td>food and drink</td>
<td>6,410</td>
<td>3,480</td>
<td>3,950</td>
<td>4,570</td>
<td>4,690</td>
<td>7.309</td>
<td>0.000</td>
</tr>
<tr>
<td>transportation</td>
<td>5,220</td>
<td>2,920</td>
<td>2,490</td>
<td>2,130</td>
<td>3,580</td>
<td>4.425</td>
<td>0.005</td>
</tr>
<tr>
<td>a. When the surveys were collected, the average exchange rate was US$ 1 = Ch 722 pesos.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. One-way ANOVA indicates whether a difference exists between the means for the 4 country categories. A Tukey post-hoc test (P &lt; 0.05) indicated that the mean spending for Chileans differed from the category of Europe and other countries in all spending categories except handicrafts and souvenirs. The categories of USA and Canada differed from the category of Europe and other countries in mean transportation spending.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. Sample sizes for total spending were greater than categorical spending, as indicated.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Females made up 49.7 percent of respondents and males 50.3 percent (n = 288). Students made up 32 percent of the survey respondents. Sixty percent of respondents travel by bus, 37 percent by personal or rental vehicle, and 3 percent by other means of transportation (n = 288, \( \chi^2 = 145.083, \) df = 2, P = 0.000). The \( \chi^2 \) statistic in this section of my thesis indicates whether the categories for the variable reported, in this case the three categories for the variable means of transportation, contain the same proportion of frequencies. Figure 5.3 shows the education level of the survey respondents (\( \chi^2 = 200.471, \) df = 3, P = 0.000).

![Education level of respondents](image)

**Figure 5.3. Education level of respondents (n = 295).**

When asked about the importance of visiting national parks or reserves, 72 percent reported that they always or often plan to travel to parks or reserves, 26 percent reported that it makes no difference, and 2 percent often or always avoid parks or reserves (n = 287). A certification of an ecotourism business was defined as a tour or business that meets minimum guidelines established by conservation organizations for the conservation of natural resources and respect for local cultures. Sixty-eight percent of the respondents reported they would bias their travel choices towards certified businesses, 23 percent reported they would not, and 9 percent listed other variables that have more
influence over their travel decisions than certifications (n = 281, $\chi^2 = 162.157$, df = 2, P = 0.000).

5.2 Salient questions approach

This part of the results section addresses the first research question. It focuses on preferences for natural settings, accommodations, and guided trips; as well as sources of trip planning information, and degree of flexibility with travel plans. It also provides spending activity statistics.

Respondents were asked to rank on a five-point scale (1 – not important, 5 – very important) the importance of including 18 different tourism features, attractions, and activities in their travels, as shown in Figure 5.4. The features most preferred were “natural areas such as parks or reserves” and “pristine landscapes/wilderness settings”, while “hikes or trips with a guide” and “horseback riding” were listed in the lowest third of items.
Respondents indicated their preferences for 10 different types of accommodations. I collapsed the original ten types into six categories. The basis for lumping two or three categories together was based on Spearman Rank Correlations between the original categories. For example, if two categories showed significant correlation, and weren’t correlated to others, they were placed in one subsequent category. The resulting categories are listed in Figure 5.5.
Figure 5.5. Accommodation preferences (n = 222).

Figure 5.5 compares preferences for accommodation types ($\chi^2 = 67.081$, df = 5, $P = 0.000$). An accommodation preference is defined as preferring a specific accommodation type more than 50 percent of the time of the respondent’s travels. Hostels were the most popular, followed by camping. Thirty percent of the respondents did not indicate a preference for a specific accommodation type more than 50 percent of the time. Therefore, this group did not have a clear accommodation preference or preferred a mixture of accommodation types. Within this group that did not show a clear preference, 73 percent reported that they prefer to camp some of the time (between 5 and 50 percent of the time of their trip).

The majority of respondents that preferred hostels were from the category of Europe and other countries ($\chi^2 = 29.873$, df = 3, $P = 0.000$) as shown in Figure 5.6. Eighty-five percent of these hostel preferrers traveled by bus, and 58 percent were university graduates or post-graduates. Analysis of variance showed that the mean age (31.3 years, $n = 54$) and mean trip length (10.2 days, $n = 54$) of hostel preferrers did not differ from the means for the other 5 accommodation categories. The travel group size of those that preferred hostels (2.5 persons) was lower than for all other accommodation preference categories except bed and breakfasts as shown in Table 5.3.
Respondents that prefer hostels (n=55)
- Israel: 16%
- Chile: 18%
- United States and Canada: 9%
- Europe and others: 57%

Respondents that prefer to camp (n=45)
- United States and Canada: 11%
- Israel: 2%
- Europe and others: 24%
- Chile: 63%

Figure 5.6. Country of residence of respondents that prefer hostels and camping.

Table 5.3. Mean group size based on accommodation preferences (n=209)a.

<table>
<thead>
<tr>
<th>Accommodation Type</th>
<th>Mean Group Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>home-stay and friends</td>
<td>6.9</td>
</tr>
<tr>
<td>hotel and cabin</td>
<td>3.7</td>
</tr>
<tr>
<td>no clear preference</td>
<td>3.5</td>
</tr>
<tr>
<td>camping</td>
<td>3.5</td>
</tr>
<tr>
<td>hostel</td>
<td>2.5</td>
</tr>
<tr>
<td>B &amp; B</td>
<td>2.4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Fb</th>
<th>p (df=5)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>6.967</td>
<td>0.000</td>
</tr>
</tbody>
</table>

a. Extreme data outliers (10 cases) were eliminated from this calculation.
b. One-way ANOVA indicates whether a difference exists between the means for the 6 accommodation categories. A Tukey post-hoc test (P < 0.05) indicated that the mean for the category of home-stay and friends differs from the others.

The majority of respondents that preferred camping were from Chile ($\chi^2 = 37.756$, df = 3, P = 0.000), as shown in Figure 5.6. Of these Chileans that prefer to camp (n = 28), 43 percent showed a preference for car camping and 32 percent for remote camping with a tent. The remainder showed mixed preferences for types of camping. Tourists that showed a strong preference to camp were split between traveling by bus (50 percent) and personal or rental vehicle (43 percent). Sixty percent of these tourists had some university education or were university graduates. Analysis of variance showed that the mean age (33.7 years, n = 44) and mean trip length (12.7 days, n = 33) of camping...
preferrers did not differ from the means for the other 5 accommodation categories. Table 5.3 compares the mean travel group sizes for all 6 accommodation categories.

Respondents preferring hostels spent more per person per day than those preferring to camp, as shown in Table 5.4.

### Table 5.4. Mean spending per person per day in Chilean pesos\(^a\) by accommodation preference.

<table>
<thead>
<tr>
<th>spending categories</th>
<th>those preferring to camp ((n=20))</th>
<th>those preferring to stay in hostels ((n=29))</th>
<th>all respondents ((n=146))</th>
<th>(F^b)</th>
<th>(p^b) (df=5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>total spending(^c)</td>
<td>9,820 ((n = 27))</td>
<td>23,150 ((n = 39))</td>
<td>17,740 ((n = 207))</td>
<td>4.193</td>
<td>0.001</td>
</tr>
<tr>
<td>accommodations</td>
<td>3,140</td>
<td>7,090</td>
<td>6,550</td>
<td>2.280</td>
<td>0.019</td>
</tr>
<tr>
<td>entrance fees, guide services, tours</td>
<td>1,130</td>
<td>4,180</td>
<td>2,200</td>
<td>3.369</td>
<td>0.007</td>
</tr>
<tr>
<td>handicrafts and souvenirs</td>
<td>250</td>
<td>560</td>
<td>1,060</td>
<td>3.145</td>
<td>0.011</td>
</tr>
<tr>
<td>food and drink</td>
<td>2,940</td>
<td>5,680</td>
<td>4,690</td>
<td>3.128</td>
<td>0.011</td>
</tr>
<tr>
<td>transportation</td>
<td>1,630</td>
<td>4,760</td>
<td>3,580</td>
<td>1.625</td>
<td>0.159</td>
</tr>
</tbody>
</table>

\(a\) When the surveys were collected, the average exchange rate was US$ 1 = Ch 722 pesos

\(b\) One-way ANOVA indicates whether a difference exists between the means for the 6 accommodation categories listed in Figure 5.5. A Tukey post-hoc test indicated \(P < 0.05\) that the means in total spending and spending for entrance fees, guide services, and tours differed for camp and hostel preferrers.

\(c\) Sample sizes for total spending were greater than categorical spending, as indicated.

A comparison of preferences for guided trips (defined as a scaled-response score of 4 or 5) and accommodations (defined as preferring an accommodation type more than 50 percent of the time) shows that respondents that preferred to stay in hostels showed the highest preference for guided trips. Forty-nine percent of those preferring hostels reported a preference for guided trips, compared to 21 percent for those preferring hotels and cabins, 29 percent for those preferring to camp, and 25 percent for those without a clear accommodation preference. A Spearman’s rank analysis showed that the preference for camping is inversely correlated with the interest in guided trips \((n = 216, \text{coeff. } = -0.164, P = 0.008)\). None of the accommodation categories showed a significant positive correlation with an interest in guided trips.

The spending activities of respondents were compared between those that prefer and do not prefer guided trips. An analysis of variance showed no statistical differences
(P > 0.10) between spending levels based on a preference for guides. In other words, the preference for guides has no effect on the amount of money spent.

The category of family, friends, and other travelers was the most popular source of trip planning information for all respondents. The *Lonely Planet Chile and Easter Island* (Bernhardson 2000) travel guide was used by 64 percent of international tourists and one percent of Chileans. Table 5.5 shows the sources for trip planning information for all respondents, those preferring hostels, and those preferring to camp.

### Table 5.5. Percentage of respondents that used the following sources for trip planning information

<table>
<thead>
<tr>
<th>Source</th>
<th>All Respondents (n=297)</th>
<th>Hostel Preferrers (n=55)</th>
<th>Camping Preferrers (n=45)</th>
<th>Chilean Respondents (n=163)</th>
<th>International Respondents (n=134)</th>
</tr>
</thead>
<tbody>
<tr>
<td>family, friends, and other travelers</td>
<td>69</td>
<td>62</td>
<td>82</td>
<td>66</td>
<td>72</td>
</tr>
<tr>
<td>internet</td>
<td>37</td>
<td>60</td>
<td>40</td>
<td>24</td>
<td>52</td>
</tr>
<tr>
<td>Lonely Planet travel guide</td>
<td>30</td>
<td>55</td>
<td>31</td>
<td>1</td>
<td>64</td>
</tr>
<tr>
<td>local information</td>
<td>41</td>
<td>53</td>
<td>38</td>
<td>36</td>
<td>47</td>
</tr>
<tr>
<td>other travel literature</td>
<td>39</td>
<td>46</td>
<td>31</td>
<td>28</td>
<td>52</td>
</tr>
<tr>
<td>travel agency</td>
<td>12</td>
<td>26</td>
<td>4</td>
<td>6</td>
<td>19</td>
</tr>
</tbody>
</table>

a. Items may not sum to 100 because multiple responses were allowed.

In order to determine the level of flexibility for unforeseen events that could occur while traveling, respondents ranked the importance of different trip planning variables on a 5-point scale (1 – not important, 5 – very important), as shown in Figure 5.7. Respondents placed less importance on making travel arrangements before their trip and not having to change plans during their trip than on other variables.
5.3 Cluster analysis approach

This section addresses the second research question. Cluster analysis was used to place survey respondents into categories based on motivational characteristics. Then the preferences of each motivation category are presented for the same variables that were analyzed in the previous section: natural settings, accommodations, guided trips, sources of trip planning information, and degree of flexibility with travel plans.

Three-group clustering provided higher analysis of variance F-scores for more clustering variables than did the 4- or 5-group clusters, as shown in Table 5.6. The relative size of the F scores gives an indication of that variable’s contribution to the separation of clusters. Therefore, 3-group clusters provide a high level of distinctions among groups while minimizing the number of groups. Two characteristics are apparent when contrasting 3-group and 4-group clusters. First, the highest-scoring group for all variables (the “strong ecotourists”, explained below) had very little change (10 percent of the group members left that group). Second, one of the 3-cluster groups (the “weak ecotourist” group, explained below) evenly split between two new groups. The critical
variables that provided the split were “indigenous or rural cultures”, “travel that provides benefits to local communities”, and “interpretive education opportunities (learning about local nature)”.

**Table 5.6. Comparison of ANOVA F\(^a\) scores between 3, 4, and 5 group clusters.**

<table>
<thead>
<tr>
<th>Cluster variable</th>
<th>3-group cluster analysis</th>
<th>4-group cluster analysis</th>
<th>5-group cluster analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural areas such as parks or reserves</td>
<td>30.31</td>
<td>32.3(^b)</td>
<td>23.2</td>
</tr>
<tr>
<td>Areas that are important for conservation</td>
<td>78.5(^b)</td>
<td>61.4</td>
<td>44.5</td>
</tr>
<tr>
<td>Indigenous or rural cultures</td>
<td>90.5(^b)</td>
<td>87.8</td>
<td>69.4</td>
</tr>
<tr>
<td>Pristine landscapes/wilderness settings</td>
<td>42.5(^b)</td>
<td>27.1</td>
<td>17.7</td>
</tr>
<tr>
<td>Interpretive education opportunities (learning about local nature)</td>
<td>88.8</td>
<td>60.0</td>
<td>101.2(^b)</td>
</tr>
<tr>
<td>Travel that provides benefits to local communities</td>
<td>98.7(^b)</td>
<td>94.9</td>
<td>69.0</td>
</tr>
<tr>
<td>Unique or endangered plants or wildlife</td>
<td>143.9(^b)</td>
<td>105.1</td>
<td>77.5</td>
</tr>
<tr>
<td>Nature observation</td>
<td>76.7(^b)</td>
<td>61.8</td>
<td>53.6</td>
</tr>
</tbody>
</table>

\(a\) All F scores were significant at the 0.000 level.
\(b\) highest F score for that variable is in bold.

The variances in the mean scaled-response scores for the eight clustering variables were low. The maximum variance in a scaled-response mean from the eight clustering variables was 1.226 (unique or endangered plants or wildlife). These low variances provide further justification to minimize the number of cluster groups.

Cluster analysis identified three distinct groups of respondents. The second group scored low on most of the 8 clustering variables and the third group scored high. The first group typically scored between the second and the third. The second group is hereafter called the “general nature tourist” group (n = 66) because their travel motivations show the weakest relation to ecotourism. The variances in the mean scaled-response scores of six of the eight variables are highest for this group. The first and third groups are hereafter referred to as the “weak ecotourist” (n = 86) and the “strong ecotourist” groups (n = 111), respectively. These categories are based on the strength of
ecotourism-type motivations for their travels. A difference between the weak and strong ecotourists is that the weak ecotourists have lower scaled-response scores for the items "indigenous or rural cultures", "travel that provides benefits to local communities", and "interpretive education opportunities (learning about local nature)". Figure 5.8 shows the 95 percent confidence interval for the mean scaled-response scores for each group, for each of the 8 clustering variables.

Figure 5.8. 95 percent confidence interval for scaled-response scores (n = 263).

Scaled-response variables that were not used to define clusters also show significant differences between the tourist categories. Opinions of tourism’s role in conservation and community development are shown in Figure 5.9. Respondents ranked
their opinions on a 5-point scale (1 – strongly disagree, 5 – strongly agree). The strong ecotourists indicated the strongest agreement with positive statements.

One-way ANOVA and Tukey post-hoc tests were used to determine if there were significant differences (P < 0.05) between the means of each variable for the three tourist categories. For all four variables above, the means for strong and weak ecotourists were similar, but differed from the means for general nature tourists. Figure 5.9. Mean scaled-response score by tourist category. Opinions about conservation and communities.

Figure 5.10 shows the mean scaled-response scores for the features, attraction, and activity variables that were not used to define clusters. Respondents ranked the importance of including these variables in their travels on a 5-point scale (1 – not important, 5 – very important). The strong ecotourists indicated a noticeably higher mean score for guided trips than the other two tourist categories. Fifty-nine percent of the
strong ecotourists gave a scaled-response score of 4 or 5 for “hikes or trips with a guide”. Of these 59 percent, most preferred to stay in hostels (25%), and most were Chilean (76%). In addition to guided trips, general nature tourists placed less importance on day-hiking, uncrowded areas, and fishing than the strong and weak ecotourists.

One-way ANOVA and Tukey post-hoc tests were used to determine if there were significant differences (P < 0.05) between the means of each variable for the three tourist categories. For example, a-a-a indicates means for all categories were similar, a-b-c indicates means for all categories differed, a-a-b indicates the strong and weak ecotourist means were similar but differed from the mean for general nature tourists, etc.

**Figure 5.10.** Mean-scaled response score by tourist category. Features, attractions, activities.
Analysis of variance showed no statistical differences (P > 0.10) in mean ages and mean group sizes between tourist categories. Forty-nine percent of the clustered females were included in the strong ecotourist category compared to 36 percent of the males. University graduates made up 37 percent of all clustered respondents and this statistic does not vary significantly between the tourist categories ($\chi^2 = 0.620$, df = 2, P = 0.733). Strong ecotourists, weak ecotourists, and general nature tourists had mean trip lengths of 11.2, 13.4, and 11.1 days, respectively (n = 258, F = 2.585, df = 2, P = 0.077). Sixty-eight percent of the strong ecotourists and 66 percent of the general nature tourists traveled in buses, whereas weak ecotourists were evenly split between traveling in automobiles (46 percent) and buses (50 percent).

Analysis of variance showed that the three groups do not differ (P > 0.10) in their mean daily spending activities, including total spending, and the spending categories of accommodations, transportation, food, and souvenirs.

The majority of Chileans are strong ecotourists. Table 5.7 shows the percentage of each country’s clustered respondents that were aggregated into each tourist category.

<table>
<thead>
<tr>
<th></th>
<th>strong ecotourists</th>
<th>weak ecotourists</th>
<th>general nature tourists</th>
<th>total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chile (n=137)</td>
<td>53</td>
<td>34</td>
<td>13</td>
<td>100</td>
</tr>
<tr>
<td>United States and Canada (n = 28)</td>
<td>39</td>
<td>36</td>
<td>25</td>
<td>100</td>
</tr>
<tr>
<td>Israel (n = 18)</td>
<td>33</td>
<td>17</td>
<td>50</td>
<td>100</td>
</tr>
<tr>
<td>Europe and other countries (n = 80)</td>
<td>26</td>
<td>33</td>
<td>41</td>
<td>100</td>
</tr>
</tbody>
</table>

The strong ecotourists were mixed between preferring hostels, camping, and a combination of accommodation types (32 percent, $\chi^2 = 25.730$, df = 5, P = 0.000) as shown in Figure 5.11. The weak ecotourists preferred camping and a combination of accommodation types ($\chi^2 = 32.059$, df = 5, P = 0.000). The general nature tourists showed a strong preference for hostels ($\chi^2 = 39.786$, df = 5, P = 0.000).
Figure 5.11. Accommodation preferences by tourist category.

Strong ecotourists were most likely to use family, friends, other travelers, and local information as resources to plan their trips, as shown in Figure 5.12. The general nature tourists used a wide variety of travel planning resources. Travel agencies were the least used resource by all respondents.
The importance of trip planning variables for each tourist category is compared in Figure 5.13. Respondents ranked the importance of different trip planning variables on a 5-point scale (1 – not important, 5 – very important). Strong ecotourists ranked all the trip planning variables higher than the respondents in the other tourist categories.
One-way ANOVA and Tukey post-hoc tests were used to determine if there were significant differences (P < 0.05) between the means of each variable for the three tourist categories. For example, a-a-a indicates means for all categories were similar, a-b-c indicates means for all categories differed, a-b-b indicates the weak ecotourist and general nature tourist means were similar but differed from the mean for strong ecotourists, etc.

**Figure 5.13. Mean scaled-response score by tourist category. Trip planning.**
6. Discussion and conclusions

6.1 Discussion of results

The typical survey respondent was someone in their early 30's with a university education. They were traveling for approximately one and one-half weeks with one or more companions. They indicated a strong preference to visit national parks, pristine natural areas, and observe nature. Activity preferences leaned more towards day-hikes and nature observation than higher intensity activities such as backpacking, water sports or climbing.

The survey results show that among national park and campground visitors there is a market for the types of experiences and activities that local ecotourism project sites are developing: trips in pristine landscapes, hostel or camping accommodations, simple means of disseminating trip planning information, and some flexibility with travel plans. Project proponents are also developing guided trips, especially horseback riding, but the results show that the interest in guided trips is small when compared to other activity preferences. However, this doesn’t indicate that a project should stop developing guided trips. It indicates the guided trips may be a small niche market. Fishing offers a good comparison. While the interest in fishing was lower than any other activity, the study area is famous for fishing and lucrative fish guiding services exist there. Interviewees stated that not much guiding activity needs to happen to accrue financial benefits. On the other hand, the Cañi Sanctuary has not achieved financial self-sufficiency by focusing exclusively on guiding in the summer. Therefore, guided trips would most likely only benefit a few individuals that had the marketing and guide skills to operate within a specialized market. The results also show that the preference for guided trips is not related to the expense of the trip. This signifies that lowering the price of a guided trip will not necessarily draw more clients.

Survey respondents were clustered into categories defined as strong ecotourists, weak ecotourists, and general nature tourists. The basis for the categories was the IUCN definition of ecotourism. The strong ecotourists have travel motivations that are
characterized by the dual goals of ecotourism: natural areas conservation and community development. The weak ecotourists have travel motivations that are characterized by the conservation goals of ecotourism, but less so by the community development goals. General nature tourists show the greatest variation in their travel motivations, and are not specifically motivated by natural areas conservation or community development.

The value of the cluster analysis is to answer the question: if I have a hostel, or guided trip, which type of tourist would be most likely to show up? The general nature tourists would comprise most of the hostel visitors, while strong and weak ecotourists would comprise most of the campers. While the overall preference for guided trips in this survey population is low, those that do prefer guided trips are mostly strong ecotourists. The majority of Chileans are classified as strong ecotourists while the category of Europeans, Australians, New Zealanders, and other South American countries are typically general nature tourists. Strong ecotourists indicate the least flexibility in travel plans, while general nature tourists indicate the most flexibility for most of the trip planning variables.

Based on the results of my research, I suggest two types of ecotourist projects likely to have a market in the study area. The first project would be a hostel accommodation, mostly patronized by visitors from Europe, Australia, New Zealand, and other South American countries. The mean group size would be 2.5 persons and these visitors would spend more money than campers would. These visitors would obtain their trip planning information mostly from word-of-mouth, but would also use the internet, travel literature, including the *Lonely Planet Chile and Easter Island* (Bernhardson 2000) travel guide, and local information. They would mostly be general nature tourists. These visitors would be more interested in guided trips than campers would. The second project would be a campground, mostly patronized by both strong and weak ecotourists, and with a strong representation of Chileans. The mean group size would be 3.5 persons. The primary resource for trip planning would be by word-of-mouth. Campground visitors in general show little interest in guided trips. Most of the strong ecotourists that also preferred guided trips prefer to stay in hostels.
Specific factors not considered in this study could change these suggested project profiles. Attributes of a project, such as a unique natural feature, or a reputation as an exceptional cultural experience could potentially draw more tourists regardless of general accommodation or activity preferences.

The importance of the cluster analysis used in my research hinges on the assumption that the motivations of strong ecotourists will translate into behaviors that will benefit conservation and communities. The strong ecotourists are interested in natural areas conservation and in traveling to areas where their travels will benefit local communities. They also believe that their travels can have a positive effect on both conservation and communities. Specific behaviors could include promoting the enterprise to others or making contributions to conservation or development organizations.

Scaled-response items that were not used as clustering variables serve as a good check on the validity of the cluster analysis. Strong ecotourists scored high on opinions about conservation and communities. This pattern fits the expectations of strong ecotourists.

One of the surprising results of my research already discussed is the difference between operators' expectations and the market preferences for guided trips. Other surprising results show differences between the ecotourist profile defined by previous market studies and my market study. My study has shown the strength of the domestic ecotourism market, larger group sizes, and a preference for camping. The profile defined by previous market studies state that most ecotourists are foreigners, travel in couples, and prefer other accommodation types. Chileans show the strongest motivations for ecotourism. Chileans represent the majority of survey respondents, and also represent the majority of park visitors. I considered the possibility that maybe Chileans are just enthusiastic survey respondents, and rank most scaled-response items at high levels. But Chileans showed similar variation in their scaled-response scores as other respondents. Therefore, the high level of participation of Chileans in ecotourism suggests that projects should not ignore the domestic market.
Analysis of the qualitative data shows that conservation planners and community members have expectations about ecotourism that generally conform to the guidelines presented in the case study literature. They see ecotourism development as an opportunity to provide seasonal financial benefits and to reduce activities that threaten biodiversity. Conservation planners don’t expect anyone to get rich from ecotourism. Only small income opportunities are needed to benefit communities. Ecotourism can replace or reduce activities that threaten biodiversity, but replacement or reduction would most likely not be complete, nor would it involve everyone. However, many of the participants I interviewed believe that the conservation impacts of ecotourism are less than other economic alternatives.

Chile has weak but growing political capacity for conserving native forest biodiversity. The most apparent factor contributing to this weak capacity is the failed attempts to establish native forest management policy. Sustainably managing native forests has been a campaign issue of every post-Pinochet administration, but the policy of economic neoliberalism established by the military regime has consistently trumped forest policy reforms. Additionally, the institution tasked with forest management, CONAF, is underfunded and relatively low on the scale of Chilean government institutions, which results in an implementation gap between regulatory enforcement and the forest policy that does exist. However, since Pinochet, the capacity for environmental policy has improved. This began with rapid development of initiatives to address Chile’s most significant environmental problems, the growth of SNASPE, and the inclusion of democratic participatory measures. The currently pending constitutional changes would also affect this capacity, for they may promote the dissolution of enclaves in the Senate that oppose forest policy reform.

Ecotourism fits into this context because it is a private enterprise that poses no threat to Chile’s economic development policies. Non-profit organizations that promote community-based ecotourism development are making up for some of the institutional incapacities, and shortages in labor and investment capital for community-based conservation and social development. Indigenous rights continue to strengthen in Chile,
which can only help to improve the ability of indigenous communities to participate in
the national economy. The last 40 years have seen turbulent land tenure changes, but
through these changes many indigenous communities have remained intact and retained
some of their lands.

6.2 Limitations

The primary caveat for community-based ecotourism as a conservation strategy is
that it assumes indigenous communities will continue to promote conservation. While
this is an area for further investigation, my qualitative data shows that the indigenous
people I interviewed in my study area believe they have always practiced conservation
and that they will continue to do so. However, my interviews were conducted within the
context of ecotourism development. All the community members I interviewed knew
that I was collaborating my research with organizations that were funding ecotourism
development in their communities.

This market study does not predict how many tourists will arrive at a project site. It
does, however, profile the tourists that will arrive; their preferences, general
characteristics (which may assist marketing efforts), and how much they will spend.
Therefore, the usefulness of this study is contingent on a key assumption: that my survey
sample of national park and campground visitors describes the target market for the
ecotourism projects in my study area. I believe this is a reasonable assumption for
several reasons.

Visitors to national parks and adventure tourism destination towns like Pucón
were identified as the target market by interviewees. For the case of the Cañi Sanctuary,
many of the Cañi visitors also visit nearby Huerquehue National Park. Further
justification is that survey sites are in close proximity to project sites. At Chiloé National
Park, ecotourism operators market their projects by directly collaborating with park
managers. I also conducted my surveys during the same season when the ecotourism
projects will be operating. Finally, visitors to national parks and ecotourism sites are
seeking the same experiences, natural environments, and recreational opportunities. It
may be the case, however, that this survey is missing an important market segment that doesn’t visit national parks.

6.3 Overall conclusions

In the Valdivian Temperate Forest ecoregion, national park and camp visitors show strong preferences for hostels, camping, low-intensity nature-based activities, and pristine environments. All of these activities and experiences are being developed at ecotourism project sites in this region. Additionally, ecotourists obtain their trip planning information through simple means, such as word-of-mouth, that are within the marketing capabilities of ecotourism operators. Many proponents of ecotourism development believe offering guide services will be financially successful. However, this study shows that the demand for guided trips may not meet expectations.

Ecotourists who support the dual goals of ecotourism, biodiversity conservation and community development, fall into a tightly defined cluster, the majority of whom are Chilean.

Those involved with ecotourism development in this part of Chile have expectations that conform to the requirements for successful projects described in the background section, namely that it takes a long time, should complement other conservation strategies, is site specific, and depends on committed project leadership.

Community-based ecotourism can complement the increasing, but currently weak, political capacity for native forest biodiversity conservation because it is an activity that has both institutional support and conforms to Chile’s neoliberal economic development policy.
7. Literature cited


Brechin SR, Wilshusen PR, Fortwangler CL, West PC. 2002. Beyond the square wheel: toward a more comprehensive understanding of biodiversity conservation as social and political process. Society and Natural Resources 15:41-64.


Chile. 1979. Chile’s new law on indian affairs.


Gajardo R. 1994. La vegetación natural de Chile: proposición de un sistema de clasificación y representación de la representación de la distribución geográfica. Santiago, Chile: Universidad de Chile.


Appendix A. Interviewees and affiliations

The following interviewees represent conservation or development organizations. The date is the date of the interview.
1. Javier de la Calle, Director, Fondo por Todos, 10/16/02
2. Rodrigo Catalan, Coordinator, Fondo Bosque Templado, date not available
3. Elisa Corcuera, Private Lands Conservation Specialist and volunteer in Cochrámo Valley, 12/26/02
4. Patricio Corvalan, INIA-Chiloé, 10/18/02
5. Martin Cox, Director, Bosque Modelo Chiloé, 10/16/02
6. Raúl Espoz and Luis Olivares, Director and Consultant, Asociación de los Caciques de Chiloé, 10/17/02
7. Rick Klein, Director, Ancient Forests International and Founder, Lahuen Foundation, 12/17/02
8. Yeyse Le-Breton, Institute for Agricultural Development, 12/2/02
9. Dorit Maucke and Silke Goethe, Tourism Consultants, DED (German Development Service), 12/30/02
10. Nikol Mintz, Founder, Foundation Lahuen, 12/2/02
11. Carolina Morgado, Administration, Parque Pumalin, 1/3/03
12. Lila Musser, Researcher, Stanford University and Cañi Reserve, 12/17/02
13. Francisco Solis, Coordinator, Coastal Range Coalition, 12/2/02

The following interviewees are community leaders and members. The date is the date of the interview.
15. Juan Pablo Armstrong, guide and community member, Cañi Guides, 10/25/02
16. Juan Bautista, Lorenzo Melinir Nanco, Sergio Melinir, community members, Asociación Quinqué Wentru, 10/30/02
17. Albertina Chodil and Carlos Guelet, community members, Quilque indigenous community, 10/16/02
18. Laura Melinanca and Sergio Lefuuen, President and community member, Maicolpue, 2/8/03
19. Alfredo Melinir, Director and community member, Asociación Quinque Wentrui, 10/28/02
20. Sergio Melinir and Alicia Infante, President and community members, Asociación Quinque Wentrui, 10/30/02
21. Carlos Paillamanque, Director and community member, Mapu Lahual Association, 10/14/02
22. Jorge Panichini, Park Guard and community member, Chiloé National Park, 10/17/02
23. Fabian Sandoval, guide and community member, Cochamó Valley, 3/5/03
24. Manuel Sanguesa, Coordinator and community member, Cañi Guides, 10/25/02
25. Matias Huenupan, guide and community member, Trafunco Los Vados, 2/17/03
Appendix B. The survey of ecotourists

Note: Survey formatting was modified to fit thesis format requirements.

SURVEY OF NATURE TOURISTS IN
REGIONS IX AND X
CHILE
Survey of nature tourists in Regions IX and X

We are conducting an anonymous survey of the motivations and preferences of nature-oriented tourists in Regions IX and X of Chile. The responses you provide will be used to support a research project conducted by Scott Harris (University of Alaska Fairbanks) concerning conservation of natural areas and ecotourism. Your participation in this survey is completely voluntary. Thank you for your responses!

1. First, we would like to get some general information about you:
age: _______ gender: M F your country of residence: ________________
occupation: ________________ number of family/friends traveling with you: ______

Section 1: Questions about your current trip in Regions IX and X

2. For how many days will you be traveling in Regions IX and X? ________________

3. What locations (for example: a town, national park, or reserve) have you visited (or are planning to visit) on this trip, and how many days have you stayed (or will stay) at each location?

<table>
<thead>
<tr>
<th>name of location</th>
<th>number of days</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1st location</td>
</tr>
<tr>
<td></td>
<td>2nd location</td>
</tr>
<tr>
<td></td>
<td>3rd location</td>
</tr>
<tr>
<td></td>
<td>4th location</td>
</tr>
<tr>
<td></td>
<td>5th or more locations</td>
</tr>
</tbody>
</table>

4. What is your primary means of transportation in Regions IX and X? Choose only one.

_____ personal or rental vehicle
_____ bus or mini-bus
_____ airplane
_____ train
_____ other: please describe: ____________________________
5. Where did you get the information to plan this trip? Choose all that apply.
   - internet/websites ______ travel agencies
   - Lonely Planet guidebook ______ friends/other travelers/family
   - other travel literature ______ local information (for example: hostel)
   - other: please describe: ________________________________

6. For your current trip, what is your best estimate of your average daily expenditures (all expenses related to one day and night of your trip)? Do not include any spending outside of Regions IX and X.
   Answers are in □ US dollars □ Chilean pesos
   For how many people does this budget include (enter ‘1’ if it is just for yourself): ______
   - accommodations
   - food and drink
   - transportation
   - entrance fees, guide services, tours
   - artesania and souvenirs
   - other expenses: please list: __________________________________________
   _____ TOTAL

Section 2: Questions about your travel preferences and motivations
7. What percentage of the time do you prefer to stay in each of the following types of accommodations?
   - hotels
   - home stay in a rural area
   - camping (road accessed)
   - remote camping with a tent
   - primitive backcountry huts
   - other: please describe: ________________________________
8. What features or attractions do you like to include in your travels? Rank each item on a scale of 1 (not important) to 5 (very important).

<table>
<thead>
<tr>
<th>not important</th>
<th>very important</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 3 4 5</td>
<td>5 sport or adventure activities</td>
</tr>
<tr>
<td>1 2 3 4 5</td>
<td>5 natural areas such as parks or reserves</td>
</tr>
<tr>
<td>1 2 3 4 5</td>
<td>5 areas that are important for conservation</td>
</tr>
<tr>
<td>1 2 3 4 5</td>
<td>5 indigenous or rural cultures</td>
</tr>
<tr>
<td>1 2 3 4 5</td>
<td>5 pristine landscapes/wilderness settings</td>
</tr>
<tr>
<td>1 2 3 4 5</td>
<td>5 interpretive education opportunities (learn about local nature)</td>
</tr>
<tr>
<td>1 2 3 4 5</td>
<td>5 travel that provides benefits to local communities</td>
</tr>
<tr>
<td>1 2 3 4 5</td>
<td>5 uncrowded areas</td>
</tr>
<tr>
<td>1 2 3 4 5</td>
<td>5 unique or endangered plants or wildlife</td>
</tr>
<tr>
<td>1 2 3 4 5</td>
<td>5 hikes or trips with a guide</td>
</tr>
<tr>
<td>1 2 3 4 5</td>
<td>5 other: please describe: __________________________</td>
</tr>
</tbody>
</table>

9. What activities do you like to include in your travels? Rank each item on a scale of 1 (not important) to 5 (very important).

<table>
<thead>
<tr>
<th>not important</th>
<th>very important</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 3 4 5</td>
<td>5 backpacking (remote camping)</td>
</tr>
<tr>
<td>1 2 3 4 5</td>
<td>5 camping (with facilities and road access)</td>
</tr>
<tr>
<td>1 2 3 4 5</td>
<td>5 day-hiking</td>
</tr>
<tr>
<td>1 2 3 4 5</td>
<td>5 nature observation</td>
</tr>
<tr>
<td>1 2 3 4 5</td>
<td>5 fishing</td>
</tr>
<tr>
<td>1 2 3 4 5</td>
<td>5 rafting/canoeing/kayaking/boating on a river or lake</td>
</tr>
<tr>
<td>1 2 3 4 5</td>
<td>5 horseback riding</td>
</tr>
<tr>
<td>1 2 3 4 5</td>
<td>5 climbing/mountaineering</td>
</tr>
<tr>
<td>1 2 3 4 5</td>
<td>5 other: please describe: __________________________</td>
</tr>
</tbody>
</table>
10. How interested are you in visiting the following natural or cultural features of Regions IX and X? Rank each item on a scale of 1 (no interest) to 5 (very interested).

<table>
<thead>
<tr>
<th>no interest</th>
<th>very interested</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
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<td>1</td>
<td>2</td>
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<td>1</td>
<td>2</td>
</tr>
<tr>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

11. When planning your travels, how important are the following aspects? Rank each item on a scale of 1 (not important) to 5 (very important).

<table>
<thead>
<tr>
<th>not important</th>
<th>very important</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>1</td>
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</tr>
<tr>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>
Section 3: General questions

12. What level of education have you completed:
   _____ high school not completed
   _____ high school completed
   _____ some university education
   _____ university graduate
   _____ post-graduate degree or higher
   _____ other: please describe: ____________________________

13. How important is it to travel to national parks or reserves? Choose one of the following.
   _____ I always plan to travel to national parks or reserves
   _____ I often plan to travel to national parks or reserves
   _____ it makes no difference if an area is labeled as a national park or reserve
   _____ I often avoid national parks or reserves
   _____ I always avoid national parks or reserves

14. Conservation organizations are considering the idea of certifying tours or ecotourism businesses. A certification would mean that a tour or business meets minimum guidelines for the conservation of natural resources and respect for local cultures. How would a certification influence your travel choices?
   _____ it would not influence my travel choices
   _____ I would seek out the certified operators
   _____ I would choose the certified operator, even if the cost of the trip was higher
   _____ I would choose the certified operator, but only if the prices and services were the same
   _____ there are other variables which would influence my decision, please describe: ____________________________
15. What is your opinion of the following statements about conservation and communities? Rank each item on a scale of 1 (strongly disagree) to 5 (strongly agree).

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 3 4 5</td>
<td>visiting natural areas raises my environmental awareness</td>
</tr>
<tr>
<td>1 2 3 4 5</td>
<td>visiting natural areas inspires me to help conserve an area</td>
</tr>
<tr>
<td>1 2 3 4 5</td>
<td>tourism can benefit the conservation of natural areas</td>
</tr>
<tr>
<td>1 2 3 4 5</td>
<td>tourism can benefit rural communities</td>
</tr>
</tbody>
</table>

16. How important is it to have a guide that speaks your native language?

- _______ very important
- _______ somewhat important
- _______ not important
- _______ I prefer to have trips without guides

17. Which of the following statements best describes how the anticipated weather affects your travel plans?

- _______ I always plan to avoid poor weather (such as rain, wind, cold temperatures)
- _______ I often plan to avoid poor weather, but other factors have a greater influence on my travel plans
- _______ I plan my travels regardless of the expected weather
- _______ I intentionally plan to travel to areas with poor weather
18. One aspect of this research project is to look at ways in which ecotourism can effect conservation of natural areas and rural communities. What is your opinion on how your travels might effect the conservation of the areas or the communities that you visit?

☐ Check this box if you choose not to answer this question.

Natural areas conservation:

Positive effects (please list)

☐ Check this box if you think there will be no effects on natural areas conservation

Rural communities:

Positive effects (please list)

☐ Check this box if you think there will be no effects on the rural communities