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Department of Geography

Faculty of Arts

University of Ottawa

The Amazon Rainforest Ecotourism Industry of Napo, Ecuador

KIM M.K. LEMKY

This thesis is submitted in partial fulfilment of requirements for the Master of Arts Degree, Faculty of Graduate Studies, University of Ottawa

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Abstract

The purpose of this thesis is threefold: to investigate the state and impact of ecotourism in Napo province, part of the Ecuadorian Amazon, to compare the different impacts on the local economy of two distinct tourist types, budget and resort ecotourists, and to evaluate the prospects for ecotourism in this area.

Through a methodology that comprised interviews, participant observation and literature review, an understanding of the ecotourism industry in Napo was found. Interviewees consisted of ecotourists and people employed in the ecotourism industry.

It was found that ecotourism is important economically at a local level in some parts of Napo, mainly by the Napo River and the town of Pto. Misahualli. These regions are relatively accessible, and ecotourists numbering an estimated 10 000 participate in an ecotourism jungle tour each year.

The two types of ecotourists have different impacts on both the local economy and the environment. The resort ecotourists are isolated to resorts. Each night is spent in the same place and tours consist of day hikes to local Indian villages and to the primary rainforest. These tourists aid the economy less than budget ecotourists because the employees that serve them are hired from outside the region and food goods for the tourists are imported into the region. In contrast, the budget ecotourists are spatially dispersed and travel each night to a new tourist camp. The budget ecotourists are essential to the economy of Pto. Misahualli. Only inhabitants of Pto. Misahualli are employed in the ecotourism industry, and all food for jungle trips is bought at local stores. Although the budget ecotourists are much more important for the local economy than resort tourists, the infrastructure of the resort ecotourists has a place in promoting the rainforest at the international level.

The current ecotourism industry in Napo is sustainable within its own parameters, but the infringement of the oil industry and the small farm colonization on the primary rainforest will ultimately lead to its downfall. The oil industry has no environmental controls and toxic wastes are dumped directly into the fluvial system; and, since local farmers must clear the land to gain the title to it, small farm colonization is the greatest cause of forest destruction and land erosion as the vegetative cover that holds the top soil in place is cleared.

Résumé

Cette thèse poursuit trois objectifs: d'abord determiner l'impact du tourisme dans la province du Napo, située dans l'Amazonie équatorienne; ensuite comparer les effets de deux types de touristes distincts, les écotouristes de station et ceux de petite bourse, sur l'économie locale; et finalement, évaluer le potentiel de l'écotourisme dans cette province.

L'approche d'analyse de l'industrie de l'écotourisme utilisée pour cette recherche se compose d'entrevues, d'observations relevées par le chercheur et d'une revue de littérature. Les personnes interviewés étaient des écotouristes ainsi que des employés au service de l'industrie écotouristique.

L'écotourisme est une activité économique importante au niveau local, particulièrement près de la Rivière Napo et de la ville de Pto. Misahualli. Ces régions sont relativement accessibles, et près de 10 000 écotouristes s'y rendent chaque année.

Les deux types d'écotouristes ont des impacts differents sur l'économie locale et sur l'environnement. Les écotouristes de station sont attachés à une station en particulier. Leurs tournées consistent en randonnées journalières aux villages indiens locaux ou dans la forêt tropicale primaire et se terminent par un retour à la même station. Ces touristes soutiennent donc moins l'économie locale que les écotouristes de petite bourse puisque les employés au service de ces touristes ainsi que les provisions qui leurs sont nécessaires sont importées. Par contre les écotouristes de petite bourse sont dispersés et voyagent chaque jour vers un nouveau camp touristique. Ils sont essentiels à l'économie de Pto. Misahualli, où les habitants sont embauchés par l'industrie écotouristique, et où toutes les provisions fournies pour les voyages dans la jungle sont achetées dans les magasins locaux. Bien que les touristes de petite bourse soient plus importants pour l'économie locale que les touristes de station, l'infrastructure de l'écotourisme de station favorise la promotion de la forêt tropicale à un niveau international.

L'industrie écotouristique actuelle de Napo est durable à l'intérieur de ses propres paramètres. Mais l'empiétement de l'industrie pétrolière et de la colonisation de la forêt tropicale primaire vont éventuellement mener celle-ci à sa perte. L'industrie pétrolière n'est pas limitée par des contrôles environnementaux et donc les déchets toxiques sont rejetés directement dans le système fluvial. Les agriculteurs locaux doivent défricher la terre pour pouvoir la réclamer, l'établissement de petites fermes est la cause primaire de la destruction de la forêt et entraîne l'érosion des sols.

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Without the help of many people, this thesis would not have been possible. Through these people it is my hope that our understanding of the forces that affect the rainforest and the development of alternatives for its conservation and preservation is improved.

The institutional support of the Centro Panamericano de Estudios e Investigaciones Geograficas facilitated research in Ecuador and was important in introducing me to the chief actors and agencies involved in the tourism industry in Ecuador and for providing office space.

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CHAPTER 1: INTRODUCTION

1.1 Introduction

The tourism industry has existed for several thousand years. Until recently, however, tourism was practised solely by the elite and upper classes of society. With the rise in wages, the reduced work week and the corporate practice of paid vacations, the tourism industry has undergone a transformation and has become accessible to the middle classes in developing countries and the middle and lower classes in developed countries. This change has been facilitated by new technology in the fields of communication and transportation (McIntosh and Goeldner 1986). In response to these transformations, the tourism industry has become one of the largest and fastest growing industries in the world (McIntosh and Goeldner 1986, McGregor 1979, Gunn 1979, Bhatia 1983). This growth has been met with a rising interest in ecotourism. In the tropics, Africa's game parks and reserves have long held the interest of tourists. Ecotourism to tropical rainforest regions has also increased because of the widespread concern with the disappearance of the tropical rainforest (Boo 1990).

Ecuador has used the Galapagos Islands and its share of the Amazon rainforest to promote its ecotourism industry. The current political unrest and drug problems in the Amazon portion of its two neighbouring countries, Colombia and Peru, has given Ecuador the opportunity to promote the relative safety of its rainforests to ecotourists. In 1989, Nelson Robelly, the director of the Centro Ecuatoriano del Turismo (CETUR), announced that CETUR plans to increase promotion of tourism and to double the number of foreign tourists in Ecuador by 1992 (Nelson Robelly, pers. comm. 1989). Ecuador organized its first tourism exposition in Quito in 1989. The exposition attempted to promote an awareness of Ecuadorian travel opportunities to both consumers and travel agents. Representatives from large hotels and local travel companies attended the exposition.

Given the small size of the country and the spatial juxtaposition of its diverse environments, Ecuador's many natural attractions can be visited within a relatively short period of time. As Forsyth and Myata (1984) state:

> In a single day's drive in Ecuador it is possible to pass through Andean paramos (moors at high elevation), cloud forests, lowland rainforests, marshes, mangroves, swamps and even desert beaches. These habitats are all tropical yet they have little in common except geographic proximity (p.7).

Geographically and culturally, Ecuador is a diverse country in spite of its small size. Its landscape provides a natural division into four major regions: the Galapagos Islands, the Highlands (delimited by the 1200m contour), the Coast, and the Amazon (Figure 1). Each of these regions has distinct attractions. The volcanic archipelago of the Galapagos Islands is known throughout the world for its unique diversity of animal life and plant life on which Charles Darwin based his book, *The Origin of Species*. Their economy is totally dependent on tourism. The Highlands are the country's foremost tourism region. They contain the capital city of Quito, which was chosen as one of UNESCO's heritage sites. This region also supports a dense population of indigenous people with their traditional lifestyles and handicraft markets, and numerous parks that contain some of the highest volcanoes in the world. The coast supports numerous plantations and beaches, and the northern section still has primary coastal rainforest. The Amazon region forms part of the headwaters for the Amazon River, and its rainforest boasts a diverse collection of flora and fauna. This area supports many isolated indigenous groups, as well as protected ecological reserves and National Parks.

Each region of Ecuador supports tourism. Until the late 1960s, however, the tourism industry in Ecuador was limited to a few adventure travellers from North America and Europe. It was not until 1969 when the cruise ship Lina A started to travel to the Galapagos Islands, that tourism started to increase. The number of tourists more than doubled between 1973 (117 684) and 1980 (244 485) (DITURIS 1987) with the Galapagos as the primary tourism attraction. With the saturation of tourism in the Galapagos Islands, other options for tourism development are being promoted in Ecuador. Increased attention has been directed to the Amazon region of Ecuador, with its many ecosystems in a pristine state and with its potential for further development. Within this region the most active tourism development has been in Napo[1] (Figure 1).

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[1]In late 1989, when field research for this thesis was being completed, the Napo province was divided into two provinces, Napo and Sucumbios. This division so far has had little impact relevant to the tourism industry. This area remains popularly known as "el Napo" and throughout this thesis will be referred to simply as "Napo".

1.2 Purpose

The purpose of this thesis is threefold: a) to investigate and comment on the state of ecotourism and its impact on Napo, b) to study the different impacts on the local economy of two distinct tourist types, budget and resort ecotourists, and c) to evaluate the prospects of sustainable ecotourism in this area. At the present time the ecotourism industry is relatively small and few studies or data exist. This study, therefore, represents a preliminary inventory.

1.3 Study Area

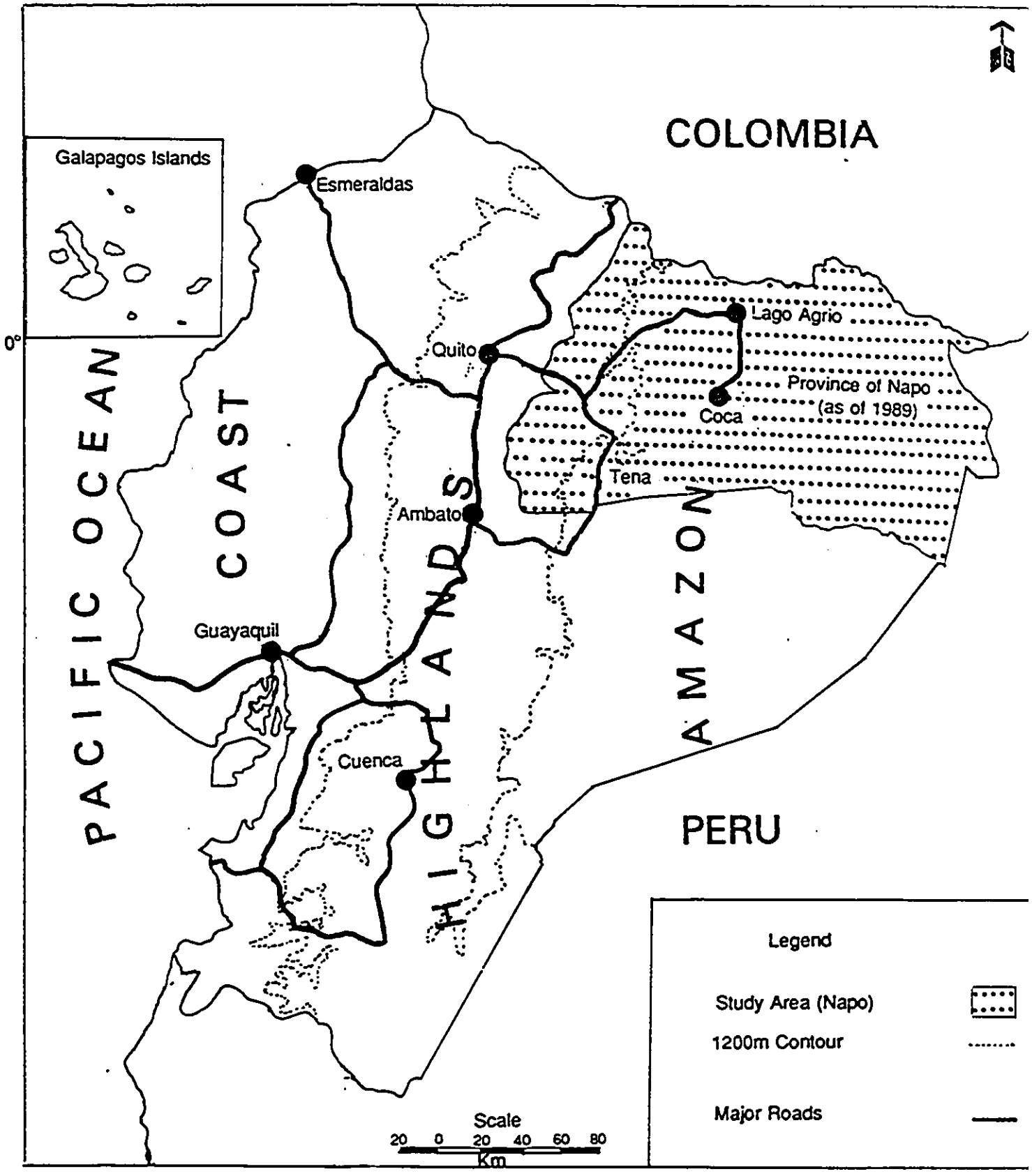
The study area for this research is the eastern lowland rainforest of Napo, Ecuador (Figure 1). Napo was chosen as a study area because it is the most dynamic tourism area in the Amazon in terms of growth, tourist volume and infrastructure. Tourism started in the late 1960s when roads were built to serve the oil industry. Colonization by small farmers has occurred significantly along these roads. A small town infrastructure, built to serve oil workers and the small farmers, also benefitted the emerging tourism industry. A tourism infrastructure developed soon after for resort ecotourists.

1.4 Objectives

There are four objectives for this thesis research. The first objective is to inventory the tourism resources and infrastructure in Napo. A complete inventory of the tourism resources in Napo has not been developed. To evaluate the ecotourism potential it is important to define clearly the available resources for this industry.

The second objective is to develop an understanding of the major types of tourists (resort and budget ecotourists) and the impact of their behaviour in Napo with respect to movement, spatial organization, volume, expenditures, and duration of stay. Ecotourists in Napo can be classified into two distinct groups, budget and resort. The two ecotourists types differ with respect to all the above mentioned variables. To understand fully ecotourists in Napo, it is important to differentiate and compare the two types.

Figure 1. Ecuador: Main Tourism Areas and Study Area



The third objective is to examine the principal ecotourist centre, Pto. Misahualli, as a case study and to show the link between the behaviour of the two types of tourists and the tourism resources. Pto. Misahualli is a microcosm of the tourism situation in Napo. Tourism is highly concentrated in this town; approximately 75% of tourists travel through it on their way to rainforest destinations. An understanding of Pto. Misahualli and its hinterland interactions will facilitate a broader comprehension of regional tourism in Napo.

The fourth objective is to determine the sustainability of ecotourism as a development option in Napo. Ecotourism has been suggested by many agencies as a beneficial method of development for both the local people and the environment. A careful analysis of this area at the present time could provide essential information on the economy, society and environment needed to ensure the proper management and future prosperity for the region.

Several tasks were undertaken to satisfy the objectives:

1) An information network was created in Ecuador, both to enable more effective research and to gain an understanding of the Ecuadorian perspective on tourism. The creation of this network was facilitated by participating in the 17th annual post-graduate course, on "Recreation and Tourism in Ecuador, " offered by the Centro Panamericano de Estudios e Investigaciones Geograficas (CEPEIGE) from June to August, 1989. Practical work carried out as part of the course resulted in connections with many different sectors of Ecuadorian tourism and established a base from which to work;

2) Published and unpublished sources of information not available in Canada were researched within the country; and

3) After completion of the course, field work was carried out both in Quito and Napo, from August to December, 1989.

1.5 Thesis Plan

The thesis is organized into eight chapters; introduction, literature review, methodology, tourism resources, ecotourists of Napo, a case study of Pto. Misahualli, the sustainability of ecotourism in Napo and the conclusion.

CHAPTER 2: THE EVOLUTION AND DEVELOPMENTAL ROLE OF THIRD WORLD ECOTOURISM

2.1 Introduction

This chapter is an overview of the published and unpublished literature about the evolution and developmental role of third world ecotourism. Regional emphasis is placed on Latin America, and more specifically, Ecuador.

Tourism in developing countries has traditionally been based on large-scale, capital intensive complexes known as resorts and enclaves. It is characterized by the involvement of international aid agencies for the promotion of tourism as a development strategy and for the funding of basic infrastructure projects. Recently, however, as negative implications of large-scale tourism have become more apparent (Belisle 1983, 1984, Bryden 1973, and Pearce 1989) there has been an increase in alternative types of tourism. Small-scale and nature-oriented tourism, for example, trekking in the Himalayas, and the Mayan culture circuit of Central America have become more common (Pearce 1989). Tourist preferences have also changed from a strictly recreational form, such as sunbathing, water-skiing and relaxation, to a greater interest in experiencing and learning about the natural environment and its people.

This type of tourism is described by such numerous adjectives as academic, alternative, adventure, eco-, bio-, nature, responsible, small-scale, soft path, environmentally-oriented, scientific, selective, sustainable, environmental, green, hard, and soft (Johnston 1990). The reason for the plethora of terms is the rapid expansion of alternative types of tourism, as well as the sudden proliferation of publications on the field; it also reflects the varying emphases of the authors. Although this nomenclature is often used interchangeably, each term has a slightly different nuance (Table 2.1). It is important that each researcher provide the definition of the term used to avoid confusion on the subject.

The terms that are used to describe how tourism is related to the natural environment and its peoples are ambiguous and not necessarily used exclusively for ecotourism. Green tourism, for

example, relates not only to undisturbed natural areas but also to the rural tourism found in France and England (Jones 1987). Although the term "alternative tourism" is used extensively, five different definitions were found in the published literature. At an international workshop on alternative tourism the members agreed that the term "alternative tourism" is unscientific and lacks accuracy and meaning, and that sustainable tourism is a more suitable term to be used to discuss environmentally and socially responsible tourism (Nash and Butler 1990). Responsible tourism refers to the type of tourism that concerns itself with maintaining the environment in an undamaged state. Terms such as ethnic, responsible and alternative tourism are related to cultural and/or nature tourism, but few can be employed to mean both with any degree of accuracy.

To limit ambiguity and possible confusion, ecotourism is the term used in this thesis. It is defined as "travelling to relatively undisturbed or uncontaminated natural areas with the specific objective of studying, admiring and enjoying the scenery and its wild plants and animals as well as any existing cultural manifestation (both past and present) found in these areas" (Ceballos-Lacurain 1987). Ecotourism encompasses a variety of activities from a casual walk through undisturbed forest to an exploration and study of unique natural features in remote areas. It has rapidly evolved from a pastime for a select few to an activity pursued by many (Boo 1990).

Table 2.1 Definitions of tourism relating to the natural environment and its peoples

Type	Definition	Author
Alternative or Responsible Tourism	"This industry appears to have almost as many names for itself as it does ventures: academic, alternative, adventure, eco, nature, responsible, small-scale and soft-path tourism to name a few....Alternative tourism represents an industry whose ventures capitalize on the increasing global concern with disappearing cultures, lifestyles, and ecosystems" pp.2-3.	Johnston 1990
Alternative Tourism	"... Manx explore the Isle of Man in efforts to understand and discover nature in archaeological remains, flora and fauna, and the landscape and to study their own ethnic heritage. Theirs is an 'alternative' tourism, a backyard tourism yielding a rich and varied experience of themselves for themselves" p. 45.	Nixon 1990
Alternative Tourism	"...sustainable tourism was a more accurate and meaningful term than alternative tourism. The group came to the conclusion that the concept of alternative tourism has little scientific value and a more suitable phrase would be alternative forms of tourism" p.264.	Nash and Butler 1990
Alternative Tourism	" AT - a form of tourism in which the client receives accommodation in the home of the host. AT appears to offer a range of social and economic opportunities, particularly for the developing countries" pp.253.	Dernoi 1981
Biotourism, Scientific Tourism, Academic Tourism	"...growing numbers of foreign scientists began to study its [Costa Rica's] natural and cultural resources which led to the development of biotourism, scientific tourism and academic tourism" p.15.	Hill 1990
Biotourism	"...rough sort of biotourism. Men and machines pitted against a capricious Mother Nature who manifested herself in unpaved roads, gullies, steep grades and stormy weather" p.43.	Nixon 1990
Ecotourism	" Ecotourism is defined as travelling to relatively undisturbed or uncontaminated natural areas with the specific objective of studying, admiring and enjoying scenery and its wild plants and animals, as well as any existing cultural manifestations (both past and present) found in these areas... ranging from a casual walk through undisturbed forest to exploration and study of unique natural features in remote areas..."p.xiv.	Ceballos - Lacurain 1987
Environmental Tourism	"Environmental tourism consists of visits by people who wish to observe geographical features or wildlife" p.21.	Hitchcock and Brandenburgh 1990
Environmental Tourism	"Ecological tourism wherein the tourist tries to leave as little effect from his/her visit as possible and concentrates on photography or tape recordings."p.5.	Johnston 1990
Green or Ecological Tourism	"The notion of 'green' or ecological tourism in which people are encouraged to pursue rural leisure activities in a manner that will benefit, rather than harm the countryside..." p.354.	Jones 1987
Green Tourism	"...a type of tourism closely linked to and dependent upon continuing long term social, economic and environmental benefits brought about by the wise management of resources" p.354.	Jones 1987
Green or Sustainable Tourism	"...more in harmony with the environment, the individual and society. The tourist development aimed for is more economically productive, more socially responsible more personally fulfilling and more environment-conscious"p.358.	Bramwell 1990

Table 2.1 Definitions of tourism relating to the natural environment and its peoples (cont'd)

Type	Definition	Author
Hard Natural-History Tourism	"...is practised by ornithologists, botanists, geologists, foresters, and other professionals...sometimes called scientific tourism...will have to walk miles into undeveloped backlands, sleep in a camp or crude shelter and tolerate primitive sanitary conditions"p.44.	Laarman and Durst 1987
Nature Travel	" Nature travel has hard and soft dimensions that can be distinguished by whether the interest is dedicated or casual" p.44.	Laarman and Durst 1987
Responsible Tourism	"Responsible tourism encompasses those ventures that are consciously designed to enhance the socio-environmental milieu of the host while educating and entertaining the guest. These ventures sell the "exotic" to gain money, labour and or foreigner presence, all in an effort to restore a degraded environment while attacking the roots of social inequity" p.3.	Johnston 1990
Responsible Tourism	" we define Responsible Tourism as relating to all forms of tourism with respect to the host's natural, built and cultural environments and the interests of all parties concerned, hosts, guests/visitors, tourist industry, governments et al." p.262.	Wheeller 1990
Science - Hard nature Tourism	"Refers to students, professors and researchers who travel to seriously study tropical biology and other aspects of tropical science" p.206.	Laarman and Perdue 1989
Selective Tourism	"Selective tourism should court both local and foreign tourists and take into account democracy, nature, conventions, and meetings, cruise ships and retirees" p.17.	Hill 1990
Soft Natural-History Travel	"...combines nature oriented visits with beaches, deep sea fishing, shopping, culture, history, nightlife, culinary pursuits and other attractions...the visitor will stay in quality accommodations, eat in good restaurants and be conveyed in comfortable transportation" p.44.	Laarman and Durst 1987
Soft-Path Tourism	"Travellers are guests in the homes of the local people, they donate their time and energy to build community development projects and use a portion of their fees to support local conservation and social action programs" p.3.	Johnston 1990
Sustainable Tourism	"An ecological, or sustainable, tourism implies that the human and natural ecosystems of an area will be able to adapt to the stresses of tourism in a way that does not threaten their continued functioning"p.24.	Goering 1990
Sustainable Tourism	"...forms of tourism that support the ecological balance which is the basis of the beauty and features of a given, mostly cultural landscape" p.266.	Edwards and Banks 1990

2.2 Growth of Ecotourism

Ecotourism has gained interest worldwide and has been facilitated because of the improved transportation and communication among different countries. Tourists are becoming aware of alternate types of tourism through the promotion of ecotourism in the published literature that includes daily and weekly newspapers and magazines. The literature has created interest in areas and sites that have a natural and cultural diversity (Boo 1990, Hooper 1989, Linden 1991).

The rise in ecotourism has captured the attention of both the political and academic worlds. "The World Conservation Strategy", published by the International Union for the Conservation of Nature and Natural Resources (IUCN) (1980), was the first internationally recognized document that encouraged ecotourism. Future projections for tourism stress the importance of local involvement in tourism and the protection of natural resources. Since 1980 there have been many international meetings[1] and journal issues dedicated to ecotourism[2]. As well, various agencies have set up special learning centres on ecotourism. For example, Garrison (1989) discusses the World Tourism Organization's goal to establish "A School for Responsible Tourism" in Tanzania to train people in the principles of responsible tourism. The government of Costa Rica has set up a university program leading to a degree in guiding and nature tourism (Fennell and Eagles 1990).

In developing countries, ecotourism has gained in popularity because it requires nominal capital investment and relies on a basic lack of infrastructure (Boo 1990); therefore, it can be implemented more easily than other types of tourism. Conservationists have noted that tourism to protected areas in peripheral and non-industrialized regions may stimulate economic activity and growth in isolated and

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[1]Conference on Tourism Development and Rural Conservation, London, England 1987, Seminar on Alternative Tourism, Tamanrasset, Algeria 1989, Conference on Theoretical Perspectives on Alternative Forms of Tourism, Zakopane, Poland 1989, Workshop on "Sustainable Tourism", Vancouver, Canada 1990.

[2]Cultural Survival Quarterly issue (1990) on "Breaking Out of the Tourist Trap", Loisir et Société special issue (1990) on "Leisure Environments and Sustainable Development".

rural areas. Long-term success depends on maintaining a climate of social and environmental integrity (Johnston 1990).

Ecotourism to tropical areas has grown in the 1980s, primarily because of the global publicity of the rainforest dilemma (Brockelman and Dearden 1990). Jungle tourism is most prolific in Thailand and Indonesia where it is estimated that over 100 000 tourists visit annually. Tourism development in Central and South America is increasing, but because of the unstable political situation in many of the countries, people have reservations about travelling to them. Two countries where the political situation is stable are Costa Rica and Ecuador. These two countries are being promoted for their natural tourism resources. They are accessible because of increased air flights and greater tourism infrastructure, for example, the construction of more hotels and restaurants to cater to foreign tourist needs. Costa Rica is a world leader in ecotourism; it has promoted its tropical natural resources for tourism more than any other country. Costa Rica is known internationally for its National Park system, the most comprehensive in the world, with close to 12% of its surface area under protection. All of the country's ecosystems are represented in the National Park system. Ecuador has gained world attention for its Galapagos Islands, and visits have increased from 12 000 in 1980 to 80 000 (unofficial) in 1989. The Ecuadorian Amazon is considered relatively safe and easily accessible (Boo 1990, Rachowiecki 1987, 1989) compared with other parts of the Amazon such as Manaus (Brazil), Manu and Iquitos (Peru).

Mexico has the largest number of foreign tourists of the Latin American countries, with 5 000 000 tourists per annum. It has diversified its tourism development to best use the available resources and also to cater to a range of tourist needs. For example, it has developed cultural tourism, emphasizing the archaeological ruins of the Mayan culture, and has combined this with the more traditional sunlust tourism. Its extensive park system is exploited for tourism, especially in the Yucatan. The number of ecotourists visiting four of the National parks was estimated to be over 750 000 in 1987 (Boo 1990).

Ecotourism in developing countries will continue to grow as long as it is available. At the

moment countries investing in ecotourism are primarily interested in the economic benefits of ecotourism and do not concern themselves as much with the negative impacts of tourism.

2.3 Changing conceptualization and organization of ecotourism

The purpose of this section is to discuss and evaluate the change in nature tourism since its inception. Ecotourism has developed from nature tourism, a type of tourism where one visits the natural environment. Two main types of nature tourism have been discussed in the literature. One type exploits the natural environment for its attributes and does not concern itself with possible negative impacts, or future sustainability. Examples of this type of nature tourism include sunbathing, water-skiing, motor boating, hunting, and downhill skiing. This type of tourism also needs a very large infrastructure to support it, such as large hotels, first class accommodation, and food. Employment opportunities for local people are limited to menial tasks such as room cleaning, kitchen duty, and serving food. The second type, which is becoming popular, is ecotourism. Tourists act in a responsible way to ensure the future sustainability of a natural resource. Activities include hiking, trekking, and tourists pay little concern towards the elegance of accommodation. While exploitative nature tourism may occur on private and public lands, ecotourism normally occurs in protected areas such as national parks, and wildlife reserves (Pearce 1989).

Similarly, Gradburn (1989) has described the evolution of ecotourism as having two key roots, namely culture and nature tourism. Culture tourism involves the appreciation of historical and cultural attributes, whereas nature tourism includes ecological and environmental tourism. Ecological tourism requires leaving the environment untouched. Environmental tourism can be further divided into two categories, recreation, and hunting and gathering activities. Ethnic tourism, where tourists stay with "primitive peoples" and learn about the environment from them, is the type of tourism that combines culture and nature tourism. The early type of nature tourism comprised, hunting and gathering; later it involved the enjoyment of nature's attributes through activities such as suntanning, windsailing, and snow skiing, etc. It originated with city dwellers who sought to escape from the urban landscape.

Various factors attract tourists to rural regions. They include natural features such as rivers, lakes and wooded areas, as well as anthropogenic features such as picturesque villages or the cultivated countryside.

In countries such as France and England, nature tourism is most popularly known as rural tourism. Rural vacations tend to be informal and unstructured, travel agents and tour operators play little if any role in their organization and the dominant mode of transport is the private car. Tourism development in rural regions is characterized by a multiplicity of small-scale, independent developers and diffuse developments. This tourism is well organized with respect to advertising, national data bases and marketing strategies (Jones 1987).

Another reason that nature tourism was initially developed was its emphasis on small-scale integrated development, which is the preferred method of developing countries. This type of tourism is in contrast to mass tourism, which is characterized by high-volume, large-scale, and enclave forms of tourism development (Britton 1987, O'Grady 1981). Opponents of this latter type of tourism suggest that there must be better ways of developing tourism in Third World countries. The preservation of natural areas for the purpose of viewing has gained importance and recognition since the implementation of the first national park in United States in 1872. Since this time, there has been a steady increase in nature tourism. Preservation of natural areas has changed from the original western ideology where people were able to use parks only for recreation, to the current view that natural areas are important for other activities and uses. Furthermore, governments controlling conservation areas have tried to integrate local people into the planning and management of the natural areas.

In conclusion, tourism opportunities have evolved, providing more alternatives, one of which is ecotourism. Ecotourism has gained in popularity because of its emphasis on small-scale, locally integrated development, non exploitive characteristics and on the teaching of tourists to have a greater respect for the environment and its peoples.

2.4 Characteristics of ecotourists

The typologies of tourists interested in ecotourism are still in the development stage. As with ecotourism, the nomenclature for ecotourists is varied and interchangeable. Tourists that partake in ecotourism have been called green tourists, alternative tourists, hard or dedicated ecotourists, soft or casual ecotourists, budget travellers, elite tourists, offbeat tourists, explorers, wanderlust and ecotourists. Krippendorf (1988) suggests the new type of tourist will be one who uses holidays and leisure time spent away from home as the basis for learning and for improving everyday life.

There have been very few studies carried out that specifically compare the ecotourist to other types of tourists or even one that compares ecotourist types. Dann et al.(1988) state in their inventory on research gaps in tourism research that few researchers have managed to compare two tourism settings or to study differences in two tourism cultures. Only two studies were found to compare tourists, one study by Kretchman and Eagles (1990) describing the differences between ecotourists and the general population, and one by Laarman and Durst (1987) examining two types of ecotourists.

With respect to this thesis, there has not been specific terminology determined for the two types of ecotourists studied (Table 2.2). Although Laarman and Durst (1987) have used the terms soft- and hard-path nature tourists, the division is based on the degree of comfort, exertion, and dedication to nature tourism, not on the price the tourist is willing to pay, or on the degree of organization required. Two other terms, budget and resort, are based on the degree of financial ability of to the tourists. The typical resort tourist searching for sun and relaxation and will pay 1000s of dollars for a few weeks in the sun. The budget traveller is one who travels as cheaply as possible over a long period of time (three to six months), normally in developing countries. The two tourist types studied in this thesis, although both ecotourists, are fundamentally different in their requirement for organization and quality of accommodation. Two terms that encompass the two types are resort ecotourist and budget ecotourist. Both tourist types fall under the category of Laarman and Durst's

soft ecotourist because the jungle trip is only part of the overall Ecuador experience. The resort ecotourists are those that have their trips organized by a travel agent, and that stay at the tourist resorts found in the jungle of Ecuador. Accommodation and meals are of the highest quality available, and the resort ecotourists will pay high prices for them. The budget ecotourists stay at the budget tourist hotels. These hotels are low-cost and offer limited quality but are serviceable and clean. The trips that budget ecotourists take are of the lowest possible price, and normally their jungle trips are organized directly with the tour guide.

Table 2.2 Tourist types relating to the natural environment and its peoples

Tourist type	Definition	Author
Alternative ecotourist	"...quest for the primitive and remote, authentic and unspoilt sites beyond the boundaries of the established tourist circuits..." p.30.	Cohen 1989
Budget traveller	"...the average traveller prefers to travel alone, is educated, European, middle class, single, obsessively concerned with budgeting his/her money and at a juncture in life..."p.313.	P.J.Riley, 1988
Casual or soft ecotourist	"...combines the nature-oriented visits with beaches, deep sea fishing, shopping, culture, history, nightlife, culinary pursuits, and other attractions..."p.44.	Laarman and Durst 1987
Ecotourist	"This individual combines educational pursuits and physical activities. Personal responsibility and preparation are important. Expectations may vary according to personal expectations. " p.24.	Fennell and Eagles 1990
Ecotourist	"...nature oriented traveller, e.g. within Canada, ecotourists are much more interested in nature than are general Canadian travellers, ecotourists find wilderness and its various components such as lakes, streams mountains and oceanside to be important attractions, as well as rural areas, implying that pastoral semi-natural environments are also desirable visitation spots."p.499.	Kretchman and Eagles 1990
Elite tourist	"...few in number include individuals who have been almost everywhere, will pay US $1500 for 1 week, they tour irrespective of whether they planned the trip in great detail in advance or not, they adapt easily and are rarely seen..."p.12.	Gradburn 1989
Explorer	"...they are limited in numbers, quest for discovery and new knowledge, they easily accommodate to local norms in housing, food, and life-style..."p.12.	Gradburn 1989
Hard or dedicated ecotourist	"...is typically a scientist or professional specialist whose interest in nature is the central focus of the experience..."p.44.	Laarman and Durst 1987
Offbeat tourist	"...seek to get away from tourist routes or heighten the excitement of their vacation by doing something beyond the norm...they adapt well..."p.12.	Gradburn 1989

2.5 Contribution of ecotourism to regional development

There has been a significant increase in research on regional development and ecotourism. General patterns of both the benefits and negative aspects of using ecotourism as a regional development tool are becoming apparent. These patterns will be discussed along with case studies that illustrate both the positive and negative aspects of ecotourism.

Tourism provides benefits for the economies of developing countries. Pearce (1981) identifies these benefits as follows: 1) tourism is a growth industry and is therefore highly desirable for the economic development of countries or regions; 2) the tourist market comes to the producer and is relatively unprotected; 3) tourism helps diversify the economy. A fourth advantage is that " where there is little or no industrial or agricultural base and no exploitable resource, tourism may make a significant contribution to the economy of a developing country" (Lee 1987). These four benefits to the economy of a country are attributable to all types of tourism, including ecotourism. Given the nature of ecotourism, however, there are several other elements that have to be considered as options for development. Its success depends on a pristine natural environment that is distant from heavily populated areas. Small-scale infrastructure is needed to retain the naturalness. Its success also relies on the inclusion of local people in all stages of development. The benefits of ecotourism, such as the protection of natural areas for future generations, limit more exploitive types of development (Boo 1990).

Jenkins (1982) defines integrated development as small scale facilities, where entry barriers are lower and there is more indigenous capital and management. Because of the lower prices, the expectations of the guests differ from those of international class hotels. Such tourists may be more readily assimilated into the community and less socially disruptive, and tourist acceptance by the host community may be less of a problem as such tourism emerges from, rather than is imposed upon, the community.

The examples of ecotourism listed in Table 2.3 provide an illustrative sample of ecotourism

throughout the world. These examples, although different in geographical location, provide similar employment opportunities and have a limited infrastructure. A common theme underlies the economic and environmental success of ecotourism enterprises: the involvement of the local people in all development stages from initial planning to the operation of the industry. Without local cooperation, environmental deterioration occurs rapidly. If local people do not benefit in some way, either through jobs or financial compensation for lost resources, it is difficult to obtain their cooperation in the preservation of resources.

The success of ecotourism depends on an equitable partnership between external and local entrepreneurs and organizers at all stages of development, from the initial research, legal and financial organization, construction, operation, management and to the sharing of benefits (Johnston 1990).

One of the main needs of the ecotourism industry is the improvement of transportation routes. Initial employment is created in the construction phase of roads. Upon completion, local access to markets is improved and goods previously too expensive or difficult to transport to isolated areas are imported. As well, good roads increase the number of tourists travelling to isolated areas for ecotourism. In the case of Tortuguero, Costa Rica, and Galapagos, Ecuador, local populations have benefited from improved transportation for ecotourists (Kenchington 1989, Marsh 1987, Place 1988, de Groot 1983).

The creation of the accommodation and dining infrastructure increases short-term employment in the construction phase and long-term employment in the management and operation of the facility. Employees such as clerks, servers, cooks, maintenance workers, and cleaners are needed for the smooth operation of a hotel facility. The tour infrastructure results in employment for tour companies, guides, porters, cooks, and tourist camps. In national parks, forest rangers, guides, porters, and field assistants are employed to protect areas, discourage invaders, and protect against other illegal activities (Houseal et al. 1985, Dearden 1988, Brockelman and Dearden 1990).

In Costa Rica, ecotourism is expected to be the best alternative in the remaining natural areas for regional development and increasing foreign exchange in the country. The small capital investment

suggests that a greater immediate return is possible with this type of tourism. It relies on local guides that are knowledgeable in the area of jungle travel and the ecology of the jungle (Laarman and Perdue 1989, Fennell and Eagles 1990).

There are also many potentially negative economic impacts of ecotourism from a local point of view. The expropriation of traditional lands by the ecotourism industry, either by the creation of protected areas, or by making an area wanted by an ecotourism developer off-limits to the local people, has severely modified some indigenous lifestyles. When this happens locals are unable to rely on traditional uses of the land, such as hunting and gathering. Foreigners may take many jobs that could have gone to local people. With the increase in tourism, the local prices of food and fuel rise to the detriment of the standard of living of the local community. As well, resources like pack animals that may have been shared between village members may be used primarily for tourists and may be no longer available for local use. The cost of renting pack animals further augments the cost of living for the local people. Further problems occur when either well-off locals or outsiders build an infrastructure requiring a large amount of energy or water that depletes the supply to the local people. Another problem occurs when hotel owners do not build adequate sewage treatment facilities, which results in the contamination of local land and water.

There are several examples of tourism in developing countries having been encouraged initially by outsiders, but eventually being taken over by the local people. The outside organizers have developed it in such a manner that it is beneficial both in the short term and long term as a tool for regional development. In Taquile Island, in Lake Titicaca, Peru, for example, the local people have kept their traditional lifestyle and incorporated tourism as one of their livelihoods (Healy and Zorn 1987). Another example of local people using ecotourism to their benefit is provided by the Cofan of the Amazon of Ecuador. In this example, one small group of indigenous people organized themselves to deal with the petroleum industries, lumber exploiters, and encroaching colonists by three methods: ecotourism, science, and industry. The Cofan give jungle trips to North American tour groups, they are hired by the tropical institutes to carry out scientific research, and they have diversified by buying

a sawmill to cut trees. In the Galapagos Islands, the regional economy is almost completely reliant on tourism. A complete infrastructure of hotels, restaurants, tour yachts, ocean liners, boat-building facilities, scuba and skin diving facilities have been built to serve the ecotourism industry (de Groot 1983, Kenchington 1989).

In summary, ecotourism can contribute significantly to regional development if it is properly organized. If local people are involved in the planning stages and in the management of the ecotourism enterprises they can control the industry's direction. Numerous employment opportunities are created in the service industry. Local people can gain experience in personal relations, dealing with the public, and become more knowledgeable about the environment in which they live, and they can provide others with this knowledge.

Table 2.3 Economic benefits of ecotourism

Location	Infrastructure	Employment	Author
Amboseli National Park, Kenya	viewing areas, park infrastructure	guides, drivers	Western 1982
Costa Rica, Protected Areas	campsites, field stations, rural lodges, gifts, souvenirs, books, stationery,cameras, films, clothing, sports and research equipment, transportation	camp site attendants, clerks, cashiers, entrepreneurs, guides	Laarman and Perdue 1989
Costa Rica Case Study	air travel, accommodation, meals, guide, local transport, access to areas and activities, varied itinerary	tour operators, resource managers, conservation officers, tourism marketers,	Fennell and Eagles 1990
Hilltribe trekking, Thailand	guesthouses, eating places, coffee shops	entrepreneurship	Cohen 1989
Khao Kaʻ National Park, Thailand	hilltribe villages, sleeping huts, small store, village handicrafts, paid photographs	guides, cooks, truck drivers,	McNeely and Dobias 1991
Lake Titicaca, Peru	crafts, guest houses, transportation, meals, accommodation	guides, boat operators, entrepreneurs, artisans	Healy and Zorn 1987
Royal Chitwan National Park, Nepal	none mentioned	guards	Lehmkuhl et al. 1988
Sagarmatha National Park, Nepal	stores for fuel and food	guides, porters, entrepreneurs	Jeffries 1982
Tortuguero National Park, Costa Rica	tourist cabins and bar, research station, eateries, food stand, store, transport, canoe rental establishments	entrepreneurs, labourers at research and tourist facilities, hunters and fishers for eateries	Place 1988

2.6 The participation of and impact on indigenous populations

The involvement of indigenous people in the tourism industry has always been a contentious issue in the literature (Johnston 1990). One side believes that indigenous people should be separated from the tourism industry on the belief that tourism destroys cultures. Other researchers believe that indigenous people should be brought into the tourism industry from the start so that they can control tourism and ultimately their destiny (Johnston 1990). Both sides increasingly recognize that a socially responsible and environmentally viable form of tourism cannot be fostered without a dialogue created and controlled along indigenous needs and on indigenous terms (Johnston 1990). Dogan (1989) suggests that a more realistic view is that tourism has produced both positive and negative results in Third World countries but that their respective levels may vary according to the socio-cultural structure of the country and the level of tourism development.

The involvement of indigenous people in ecotourism is important for several reasons: conservation of the ecosystem, employment for local people, indigenous control of a region proposed for protection, more use of local materials for construction of the infrastructure, use of local architecture and, finally, the improvement of the economic situation of indigenous people in isolated areas.

Some of the negative aspects of tourism occur when people that have not had much contact with the western world are suddenly faced with people of a different culture. The contact may result in a deterioration in the quality of life. Changes or loss in culture may occur, alcohol and drugs may be introduced and land may be lost to outsiders who control ecotourism. The changing tourist preferences for a tourism resource may result in the sudden decrease in tourism in a region that has typically relied on tourism for its local economy.

The impact of ecotourism on indigenous cultures varies greatly according to a number of factors, including the degree of impact, number of tourists, expectations tourists have of locals, local involvement and degree of exploitation. The literature reveals examples of both positive and negative impacts of ecotourism on indigenous cultures. The positive examples include the Taquile Island people

of Peru, the Cofan Indians of Ecuador (Hooper 1989), and the Ju/Wasi Bushmen of the Kalahari (Western 1982). The success of integration depends on the degree of control that local people have over the industry, the scale (normally, a small-scale ecotourism industry is more easily managed), the degree of contact with the national and international tourist markets, the economic benefits, and the employment opportunities that arise from the tourism industry.

Tourism can have a positive impact in redefining tradition and enhancing the handicraft industry. It has been suggested that in redefining tradition and handicrafts, cultures have been transformed and, to an extent, revitalized, and have created more cohesive communities (Nixon 1990, Klieger 1990). There has been, for example, a revitalization of the Taquile Indian handicraft industry with the expansion of the tourism industry. As a small island owned by the local people it is accessible only by the main port. The Taquilenos have complete control over who visits the island and any development that takes place. Primarily it has been a grassroots development scheme aided initially by the U.S. Peace Corps of Volunteers. The effort has been a community one whereby all members of the community benefit from the tourism. Each family has guest houses, which are rented, with meals supplied, to tourists. Outsiders are not allowed to establish businesses on the island. All people are at liberty to sell handicrafts, which are woven by all members of the community (Healy and Zorn 1987). In Ecuador's Amazon, the Cofan Indians control the tourism industry. Economic benefits are made by canoe rentals, and by employing guides, and boat operators; money has been put into a school system to educate the local people and a small village was built to serve the tourism industry. The Cofan indians provide a model example of how a group of indigenous people can adapt to the modern world. In Colombia the architecture of the local Tayrona Indians is used to build tourist lodges (Soto 1989 pers. comm.). In Nepal and Thailand, there is increased involvement of the local people with budget ecotourist trekking (Cohen 1989, and Dearden 1988). In a particular case in Thailand, the involvement of some of the local people in park management has led to positive results with park patrolling and in decreasing poaching (Brockelman and Dearden 1990).

The negative effects of ecotourism can be seen with the Hilltribe people of Thailand, the Kuna

of Panama, the Sherpa of Nepal, and the Tana Toraja of Indonesia. With respect to the Kuna, the reason for the lack of success of ecotourism is the lack of promotion by the national tourism agency (Chapin 1990). Demands of the trekkers on the Sherpa have increased the threats to local resources and to the local people's way of life; tourists have influenced modes of dress, eating habits, family structures, religion, community, language, and daily patterns of life (Puntenney 1990). The government of Indonesia has set up a system to determine the authenticity and importance of each one of the Tana Toranja culture groups (Swain 1990). This has disrupted the social structure and heirarchy of the local people. While the Hilltribe people of Thailand initially benefited from the tourism industry, as they became more and more westernized, tourists have turned their interest elsewhere in their search for more authentic, untouched cultural tourism resources (Cohen 1989).

Outsiders have attempted to prevent changes to indigenous environments and cultures regardless of local people's desire for change. The resulting problem is that local cultures cannot evolve and change with changing times, they are not able to use new innovations to improve their present lifestyle. Outside control may limit attempts by locals to develop and advance their economic state, as is exemplified by the Ju/wasi Bushmen in Southern Africa (Gordon 1990).

Another negative aspect of ecotourism occurs when people are forced off their land so that governments or development agencies can establish tourist facilities. For example, the definition and value of critical resources have changed as they are used to meet the externally-defined needs of the tourist. Growth in tourism has changed the pattern of societal control over critical resources as different groups gain or lose ownership, access, and rights to land. Resource managers meet tourist interests first and residential interests second. Cultural values shift and social relations are strained as the identity and role of the host society is redefined by the needs of the tourism industry and by images projected by the society's guests. Adventure travel in the Himalayas resulted in deforestation, desertification, devaluation of tradition, and social fragmentation (Goering 1990, Puntenney 1990, Klieger 1990).

Hitchcock and Brandenburgh (1989), in their article on game parks in Kalahari, show the ways

that conservation and development projects are often designed and implemented in a political context in which indigenous people have only a nominal voice in policy and management. Resource access and use restrictions established to protect wildlife habitat threaten the livelihood and, in some instances, the very lives of the indigenous people.

The poorest sector of the population bears the costs of supporting wildlife economically and aesthetically. In Quintana Roo, a unilateral decision made by the upper government took farm land away from local Mayans, formed a National park and allowed a hotel to be built without the consultation of locals. Locals are frequently excluded from the development of tourism, because there is no room in the economic development plan to incorporate them. Furthermore, the tourists are taught little about the local Indians; they are not informed, for example, that the archaeological ruins they see about them were originally constructed by the ancestors of the local farmers (Gordon 1990).

In Ladakh, tourism is concentrated in Leh, and benefits 10% of the population while the other 90% bears the costs of contaminated water caused by an inadequate sewer system. Tourists use up local resources and surplus that formerly stayed in the village; pack animals, for example, that were originally used to transport heavy products such as fuel wood, are used to transport tourist luggage (Daltabuit and Pi Sunyer 1990).

There are many examples in the literature of both positive and negative impacts of ecotourism on the indigenous people. Unfortunately, it seems that there is a continuing lack of involvement by locals in planning and decision-making, which has resulted in serious problems. It is difficult to theorize on how the control should be divided between the local people and the government because each group of indigenous people has different reactions to government involvement. In some instances, if organization is too localized and regional, it might not attract foreign tourists because of a lack of promotion or advertising. Too much government control, however, can result in protests by locals.

2.7 The sustainability of ecotourism

Sustainable development has been defined as development that meets the needs of the present without compromising the ability of future generations to meet their own needs (World Commission on Environment and Development 1987). This concept is not a new one. Traditional peoples have been using it for thousands of years to preserve their environment and livelihood. The developed world, however, has only begun to realize that land areas and natural resources are not infinite, and that measures will have to be taken by all to ensure long-term sustainability of the areas.

For a development project to be sustainable over a long period, several criteria need to be considered, namely, the limits to growth of the economy and socio-cultural aspects of an area. Ecotourism is being promoted as a development strategy because, if properly implemented, it can meet the criteria for sustainability.

The sustainability of an economic activity depends on the ability of the region under development to absorb the impact of the activity on the environment and the local culture. To assess sustainability, several factors need to be determined: the amount of environmental deterioration which can take place before an area is no longer of interest to ecotourists, how long the local people can withstand the socio-cultural impacts of tourism before tourism is no longer beneficial to them and, finally, the procedures by which economic development is conducted. All of these factors are currently being studied by groups around the world.

Environmental sustainability depends on the degree of degradation that an area can sustain while retaining ecotourism as an economic activity. The literature on the criteria for environmental sustainability is profuse. Barabé (1990) states that it is necessary to integrate conservation and developments, which will guarantee perpetual resources, a carrying capacity of ecosystems that respects life, and an equilibrium between the present and future use of the land. Ecotourism is compatible with other types of land use. In rainforest areas where vegetation is dense, for example, tourism can be isolated to certain areas and rotated every few years to ensure the environment is not degraded irreparably. Tourists can be effectively isolated from other types of land use like small-scale

agriculture and harvesting of rainforest products (for example, rubber tapping, nuts, fruit) if they do not want this as part of their jungle experience.

Marin and Lemieux (1990) believe that the best way to ensure environmental sustainability is to minimize environmental deterioration. They suggest that one way of ensuring this is to educate the local people on the importance of this resource. Goering (1990) conversely states that real change toward a more sustainable tourism comes only when tourists have changed their attitudes; when tourists arrive with open minds, ready to learn and be transformed in a spirit of solidarity, then tourism will not change a place so profoundly.

Monitoring the different levels of the impact of recreation on the environment and assessing ecosystems with respect to their sustainability, developers can ensure that sustainable development does not negate conservation for purposes that conflict with its basic principles and values (Bussière 1990). Many researchers strongly recommend that local people become as involved as possible in all stages of development, including the early planning stages and the implementation of the tourism resources.

The carrying capacities or tolerable levels of use have not been determined for many areas. This is a field of research that is still in the developmental stage. Because each natural area is unique in biophysical characteristics and cultural characteristics, it is difficult to determine the level of stress from large numbers of tourists that causes environmental deterioration. In some instances, visitors continue to visit, Nepal, for example, where natural areas have been damaged by deforestation, in spite of environmental deterioration. The Galapagos islands is another area where tourists continue to visit even though animals are becoming scarce along nature paths (de Groot 1983, Kenchington 1989). In places like Thailand, where jungle trips rely not only on the natural environment, but also on the local hilltribe people, the acculturation of these people to western dress has decreased their interest to ecotourists, and visitors rarely go to the area now. The centre for ecotourism tends to move deeper into the jungle where hilltribe people have had less contact with tourists.

The inviolability of a culture from tourism depends on the type of tourism practised. It is

difficult to determine if change is occurring as a direct result of tourism or as a result of increased contact with the western world through trade. In some instances, a culture can be revitalized by ecotourism, which can reinforce ancient traditions and traditional handicrafts. In other instances, tourism can cause a profound breakdown in culture and a loss of tradition. The degree of westernization by local cultures that a tourist will put up with before he or she is no longer interested in visiting depends partially on the tourist's degree of expectation and partially on the amount of authenticity required. Both Cohen (1989) and Dearden (1988) describe the tourist's loss of interest in the hilltribe people when they adopted the western dress and way of life. In other cultures, however, people have long been in contact with western culture, and, although they appear to be westernized, they have retained their traditional way of life.

Economic benefits of development have to accrue to the local people. This occurs only if as many local materials, products, and people as possible are used in all stages of development. No economic development will ever exhibit permanent and sustained viability unless the economy is linked with the environment and the society in a threefold interactive system (Farrell 1990).

Protected areas are an integral part of a global shift towards the concept of sustainable development, as stated in the report by the World Commission on Environment and Development, (Dearden 1988). To ensure sustainability, the quality of the biophysical environment and the educational and recreational experiences of tourists have to be monitored and maintained. The indigenous people that use the land should be considered at all levels of development. Three important aspects of sustainability are the conservation of essential ecological processes and systems that provide for life, the preservation of ecological diversity, and the use of areas and ecosystems in a manner that will ensure their long-term survival. These concepts present an opportunity for development for populations that live in their periphery because revenues can be generated from tourism and from the controlled extraction of food or forest products such as nuts, rubber, fruit etc.

Not only do protected areas ensure that tourists have a natural environment to visit, they also ensure that adjacent area resources are kept intact. For example, the preservation of a forest in a

drainage basin ensures that erosion is minimized, that streams are free of excess sediment, and that there is a supply of water down stream (Protected Areas of the World, 1983).

Visitor carrying-capacity has long been used in evaluating and controlling the impact of tourism on protected areas. It is defined as the maximum level of visitor use an area can accommodate with high levels of satisfaction for visitors and few negative impacts on resources (Boo 1990). It is difficult to achieve sustainable development when the number of tourists increased from 650 visitors in 1971 to 179 948 visitors in 1986, as happened in Tana Toraja. Parks with a moderate to high volume of tourists have more revenue than parks with a low volume of visitors, and may be used as the basis for ecological studies and to develop and implement park management plans. A greater emphasis on interpretive activities for both nature tourists and for local communities will make people aware of problems. The visitor carrying-capacity of an area is considered to have been reached or exceeded when changes occur in animal behaviour, and when a plant or animal population is reduced significantly, often to the point of extinction. When paths erode and when water quality is degraded.

There are many instances where sustainable development is encouraged by locals or nonlocals who realize that without local involvement sustainable development is limited (Table 2.3). The Ladakh Ecological Development Group seeks to promote sustainable development that harmonizes with and builds on traditional Ladakhi culture (Goering 1990). By diverting the benefits from tourism to the Maasai, who traditionally live in the Amboseli Basin, Kenya has won their support for wildlife conservation programs. The Amboseli National Park is now a working model for other wildlife protection and tourism development projects (Western 1982). A project set up by a group of New Zealanders attempts to increase sustainable tourism by diversifying the fuel reserves, and integrating traditional land use practices into national park management planning and implementation. Galapagos Islands National Park is a park that relies almost exclusively on tourism as an economic basis, but, as it lacks a proper management plan, tourism is increasingly expanding to the detriment of the natural environment (Kenchington 1989, de Groot 1983). Saglio (1979) describes a unique tourism development project in West Africa that emphasizes simple accommodations built of traditional

materials and managed by local people. Ecotourism requires little capital investment and attempts to incorporate local people into the economy by, for example, providing canoes for transportation and by preparing meals using local products and traditional cuisine. Taquile Island, in Lake Titicaca, Peru, provides an example of successful tourism where the local people control the development of tourism with respect to the number of tourists that travel to the island, accommodation, food, and items they can purchase. In both Annapurna and Sagarmatha national parks in Nepal, the available natural resources cannot be sustained as tree-cutting for firewood has caused severe deforestation. Selling wood for fuel, in fact, has become such a lucrative business, that the tree line has been raised several hundred feet. Unplanned development has caused areas to become barren, and there is an urgent need for trash control and methods to stop poaching.

Ecotourism can meet the changing economic needs of rural communities, by promoting better rural conservation in terms of coherent land management, and ecological and sound economic bases (Jones 1987). Equally, ecotourism can help to retain the land's natural beauty and to improve and extend opportunities to the public for its enjoyment (Clarke 1981). Sustainability depends on the ecology of an area and the type of tourist the area attracts. A symbiotic relationship between tourism and conservation can bring physical, cultural, ethical, and economic benefits to a country (Lehmkuhl et al. 1988).

Sustainable economic activity is highly dependent on both the environment and culture of a region. The limits to the growth of ecotourism have to be determined before the environment and culture irrevocably deteriorate. If ecotourism is managed well, then economic growth can be controlled and long-term economic benefits can be retained. The development of sustainable ecotourism is possible if proper measures are taken to control its impact. These measures consist primarily of the involvement of local people in all stages of the development of ecotourism, proper controls on the amount of infrastructure construction and of the number of tourists in keeping with the carrying capacity of the area under development. In practice, however, there is generally a struggle to keep development within sustainable parameters.

Table 2.4 Degree of sustainability of ecotourism projects found in the literature

Case study	Problems	Benefits to the preservation of the environment	Degree of sustainability	Author
Amboseli National Park	Lack of local involvement in initial planning	Locals increasingly becoming involved in development	With local involvement, it is much more likely to be sustainable	Western 1982
Costa Rica Parks	Conflicts with agriculture on National park land	12% of land area protected, all types of ecosystems	If conflicts continue sustainability will be limited, but sustainability is essentially achieved	Marin and Lemieux 1990, Place 1988
Galapagos Islands, Ecuador	No lid on development, infrastructure and tourist numbers increasing	National Park recognized as a unique areas	Currently sustainable, but quality of the environment is diminishing because visitor carrying-capacity is exceeded	de Groot 1983, Kenchington 1989
Lake Titicaca, Peru	Potential outsider monopoly	Local people are only ones involved in the development	Depends on control of future: tourism at the moment is sustainable	Healy and Zorn 1987
Nepal, Chitwan	Locals kicked off land and no longer able to harvest resources	Unique place needs some protection	Allowing locals back into park for certain harvests of resources ensures sustainability	Lehmkuhl et al. 1988
Nepal, Sagarmatha	Too much environmental deterioration because of ecotourists	Provides jobs to local people	Not likely to be sustainable unless fuel sources are altered	Jeffries 1982
Thailand, Protected areas	Agriculture, deforestation, loss of culture	Ecotourism can be beneficial if properly planned	Zones currently in a state of transition from no development to too much development	McNeely and Dobias 1991

2.8 Approaches in ecotourism research

The purpose of this section is to discuss the approaches used in researching ecotourism. As ecotourism is a relatively new field of study the majority of information has been published only in the last decade. A review of the literature on ecotourism in developing countries reveals that the majority of the research of the early 1980s comprised descriptive case studies. The researchers concentrated on the environmental, social, and economic impacts of ecotourism in specific areas. With the plethora of information recently published, however, several researchers have begun to form models and frameworks of ecotourism. Tobias and Mendelsohn (1991), for example, created a model that evaluates the economic importance of ecotourism by placing a value on nature. Fennel and Eagles (1990) formulated a framework by which one can show all the actors and agencies within ecotourism. Finally, Barabé (1991) formulated a model that demonstrates the environmental and social aspects involved in sustainable ecotourism.

The methods used in this research ranged from formal and informal interviews, surveys and questionnaires, to a review of the published literature (including government documents) that are related to the ecotourism field. In the majority of instances, the researcher used a combination of research and field techniques in order to collect enough information to evaluate ecotourism (Dann et al. 1988). There are few statistics that relate to ecotourism (Boo 1990).

There were numerous constraints in researching this subject. Since it is a new field, there is little published data on ecotourism. Governments in developing countries have only recently implemented ways to count tourist numbers and these records are as yet unusable for statistical analysis. Ecotourism normally occurs in isolated areas to which travel is difficult for research or interviews with either tourists or locals. It is a highly seasonal pursuit and therefore difficult to research except for those who have plenty of time. Language barriers also make research difficult.

Although more case studies on ecotourism now exist, there have been few attempts to coalesce the information, look for common trends, or discuss ways that ecotourism can be more

beneficial to the local people. From the published information, it is also apparent that there is a lack of research about the carrying capacity of an ecosystem for ecotourism. This lack results in problems in both the planning and policy stages of development because there is little information resource managers can use to forecast future needs. With such a dearth of statistics about ecotourist growth, resource managers cannot predict constraints caused by ecotourism on the local populations, or the amount of stress that the sudden growth puts on valuable resources such as water and fuel that are needed for local people.

A further problem in studying ecotourism is the lack of research that compares the impact of the hard and soft nature tourist. In planning for ecotourism, managers have little information to help them determine the level of infrastructure and the capital investment needed for its development. Ecotourists, although wanting to see natural areas in their untouched state, have differing expectations of comfort and physical activity.

Because of the complexity of the social, environmental and economic variables that affect ecotourism, many studies are not carried out in depth in one particular area, but touch only marginally upon all its aspects.

In conclusion, although the literature on ecotourism is increasing, there are still many gaps that need to be filled so that a clearer picture of this type of development is available.

Table 2.5 Methodologies used in ecotourism research in developing countries

Location of study area	Type of study	Methodology	Authors
Tortuguero National Park, Costa Rica	Case Study of National Park and neighbouring village	Detailed household survey, questionnaire, formal interviews with local people, park service personnel, and persons engaged in the tourism industry related to park, informal interviews with local people	Place 1988
Science Tourism, Costa Rica	Economic importance of science tourism	Questionnaire, survey of Organization of Tropical Studies participants and associates	Laarman and Perdue 1989
Monteverde Cloud Forest Biological Reserve, Costa Rica	Application of travel cost method	Observation of travel behaviour and choices tourists make	Tobias and Mendelsohn 1991

Table 2.5 Methodologies used in ecotourism research in developing countries (cont'd)

Location of study area	Type of study	Methodology	Authors
Costa Rica	Theoretical, sustainable development	Use of Costa Rica as a case study, observation, literature review	Marin and Lemieux 1990
Costa Rica	Conceptual Framework	Literature review	Fennell and Eagles 1990
Amazon Ecuador	Case study	Participant observation, interviews with people in ecotourism industry	Hooper 1989
Amazon Ecuador,	Case study of nature tourism	Participant observation	Laarman and Durst 1987
Galapagos Islands National Park, Ecuador	Case Study, Environmental deterioration, Policy	Literature review, interviews with local people involved in parks and ecotourism, visit to the study area	Kenchington 1989
Galapagos Islands, Ecuador	Case study	Participant observation, guide and researcher, two-year stay	de Groot 1983
Amboseli National Park, Kenya	Case study of park and local people	Calculation of economic returns in park, interviews, discussion, observation	Western 1982
Sagarmatha National Park, Nepal	Case study of park manager's perspective of ecotourism impacts	Personal observation, management of a development project	Jeffries 1982
Chitwan National Park, Nepal	Case study of local people and national park	2000 single-page questionnaires distributed in the field to locals, observation	Lehmkuhl et al. 1988
Khao Kai National Parks, Thailand	Case Study, Local involvement	Participant observation on jungle trips in park, interviews with local people involved in tourist trade	Brockelman and Dearden 1990
Northern Thailand	Description, forecast tourism, relates to tourism growth-cycle model	Participant-observation, interview	Dearden 1988
Northern Thailand	Concept of cultural authenticity applied to alternative tourism	Content analysis of advertisements of jungle companies, independently collected data through interviews and participant observation	Cohen 1989
Theoretical	Theoretical national parks and surrounding communities	Literature review, borrowing of case studies carried out by other researchers	Hough 1988
Theoretical	Theoretical model	Thorough literature review	Barabé 1990
Lake Titicaca, Peru	Case study, local people	Participant observation as a tourist, helped set up program for tourism and handicrafts	Healy and Zorn 1987
National Parks, Mexico, Belize, Costa Rica, Dominica and Ecuador	Report on five case studies	Literature review, collection of data, survey conducted at airport and in two park sites, interview of government officials, workshop to join studies	Boo 1990

2.9 Conclusion

The preceding text has shown that few theoretical or methodological studies exist about ecotourism. Essentially, the literature consists of case studies, many of which focus on different aspects of the subject; therefore, although comparisons can be made, generalizations about the best plan of future research of each subject cannot.

In this thesis, ecotourism is studied through a comparative study of ecotourists in Napo. It examines spatial patterns and movements of ecotourists and the integration of these with the local economy, and the sustainability of ecotourism in Napo given the present state of the tourism resources and the conflicts it faces with other types of development.

CHAPTER 3: METHODOLOGY

3.1 Introduction

As Chapter 2 has illustrated, research on the development of tourism is limited and has been difficult to conduct because it is intimately linked to numerous subject areas, including "...social, environmental and economic aspects, marketing, geography, anthropology, behaviour, business, human ecology, history, political scene, planning and futurism and many others" (Ritchie and Goeldner 1987). This diversity of subjects has led to a preference for comprehensive approaches in the ecotourism literature.

As a baseline study, this thesis is broad and primarily exploratory, covering a broad range of objectives, with only a preliminary level of analysis. It covers ecotourism resources; ecotourists, organization and economic implications of the ecotourism industry, and prospects for sustainability. The methodology used in this research therefore took into account the multifaceted nature of the research problem. There are a variety of data needs including spatial nodes and networks of tourists, tourist types, tourism infrastructure, and both quantitative and qualitative data on the impact of ecotourism on the environment and people of Napo. A variety of research techniques were therefore used. These included observation, participant-observation, the questionnaire, the interview, a literature review of both published and unpublished sources, and an examination of statistical records.

Methods such as the interview, observation, and participant-observation, each have limitations that were minimized as much as possible by the researcher. During the interviews with guides, resort operators, and tourists, the researcher attempted to be non-biased and to ensure questions were clearly understood by the interviewee. Information obtained from the interviewees was not always factual and had to be double-checked. As interviews with tourists relied completely on the tourist s memory of her or his pattern of expenditure during the trip, it was preferable to interview the tourist directly after a trip, but, as this was not always possible, some of the responses were generalizations and estimations.

In Ecuador, documentation by governmental and nongovernmental agencies on tourism,

especially ecotourism, is scarce (Boo 1990, Rachowiecki 1987, 1989, DITURIS 1987, 1988, 1989). CETUR (formerly known as DITURIS) is the organization that has published and compiled the most information on tourism in Ecuador. The published information consists of a report, "Aspectos del Desarrollo Turistico en el Ecuador", discussing tourism and development, a co-effort between different development agencies and CETUR, the 1987, 1988, and 1989 statistics on tourism for Ecuador, and several guide books on tourism in Ecuador. Few articles have been written by the national tourist board or by the scientific world on jungle tourism in Ecuador, and most of the existing information is dated and therefore of little relevance to the present situation.

The statistics compiled by CETUR are inadequate as a single source of statistics for the researcher. The data is questionable: it is out of date, the information is too general to be used for determining ecotourism infrastructure, and it makes no distinction between resort and budget ecotourists. Complementary data was gathered to fill the gaps. The records kept by the port controllers in Pto. Misahualli and Coca were examined. The port controllers keep records of the number of foreigners that leave the port. This information is kept in a daily log or in a contract signed by both the guide and tourists before a jungle trip. Although the data was incomplete (data from several days and weeks in each year was missing) it indicates the number of tourists that travel in the area and the percentage of each type. These records are important because they are the only records kept about tourists in Napo.

3.2 Objectives

This thesis has four objectives. The first objective is to identify all existing tourism resources in Napo. These tourism resources consist of the natural environmental attractions (i.e. lakes and rivers), the points of cultural interest (indigenous groups, villages, and handicrafts), and the built infrastructure (hospitality and transportation sectors). An evaluation of the tourism resources is the first step in determining the magnitude of tourism in a region and the potential for increased tourism.

The second objective of this thesis is to study the two major types of tourists that visit Napo, the resort ecotourists and the budget ecotourists, and the impact they have on the area. Data was gathered on the economic and spatial impacts of these two tourist types, the total volume of tourists, the spatial organization of tourists (transportation routes in Napo), the tourist dollars spent, and sector allocation in the local economy. The two tourist types are differentiated and compared with respect to retention of tourist dollars in Napo, and the tourists' spatial organization; for example, tourist expenditures that occur in spatially select areas are compared to tourist dollars spent in dispersed areas.

The third objective of this thesis is to examine the interaction between the tourists and the tourism resources. The town of Pto. Misahualli, which has the largest number of ecotourists passing through it, is used as a case study. From this case study generalizations of the tourism industry and its operation in Napo can be extrapolated.

The final objective of this thesis is to evaluate ecotourism at a regional level in Napo and to determine the likelihood of its degrading of the environment and culture, and its compatibility with different types of land use. There are three main economic activities in Napo: petroleum exploration and exploitation, small farm colonization, and ecotourism. These activities will be compared and contrasted to predict the future sustainability of development.

3.3 Research Methods

3.3.1 Tourism resources

A variety of methods were used to obtain information relating to the tourism resources. The reviewed sources of published literature were the inventory compiled by CETUR (DITURIS 1987), a recent article published by the newspaper "Hoy Diario" (May 6, 1989), general books written on Napo, and tourist guide books (Rachowiecki 1989). Different tourist sites were visited on the recommendation of tourists and people working in the tourist industry (guides, hotel and restaurant operators).

Data on the cultural resources of Napo was gathered from field observations, a review of the published literature on the indigenous peoples of Napo, and from interviews with different indigenous people involved in the tourism industry.

Many methods were used to obtain information on the infrastructure resources in Napo. There are three main types of transportation used in Napo: ground, fluvial and air. Reliable data about ground and air transportation was easily obtained from pamphlets and personnel in bus and airport terminals. Information on fluvial transport, however, was more difficult to obtain because the cooperatives that were previously responsible for the organization of fluvial transport are no longer functioning. Data was obtained from interviews with the port controllers and from observation, but it was difficult to assess the state of the infrastructure because of the demise of the cooperatives. Specific information relating to the two main airports at Lago Agrio and Coca was gathered by interviewing the airline booking company in the two towns.

A thorough inventory of the main tourism towns of Tena, Archidona, Pto. Misahualli, Coca, and Lago Agrio was carried out (Appendix 1). These five towns were chosen because of their size and their likelihood of having ecotourism as a significant part of their economy. To determine the tourism hospitality infrastructure, the DITURIS inventory (DITURIS 1987, 1988, 1989), and the Survival Kit to Ecuador and the Galapagos Islands (Rachowiecki 1987, 1989) were used as guides. The researcher also visited all establishments and interviewed employees. A set series of questions was asked pertaining to the capacity of the establishment, its age, ownership (local or foreign), and the number of employees. Information was obtained about the importance of both foreign and national tourism at each establishment. The establishments were rated on quality (it was generally found that the quality of an establishment was directly related to the price), the cleanliness of the hotel, and type of clientele it catered to. In Lago Agrio, brothels and other questionable establishments were not researched due to the researcher's insecurity about possible treatment. The dynamic nature (i.e. new developments, change in ownership or name of hotels) of the frontier towns created difficulties in locating some of the establishments listed in guidebooks and the CETUR tourist inventories.

The independent restaurant infrastructure was not thoroughly examined because most of them were of poor quality. The researcher surveyed the better hotel restaurants.

Resort hotels located on the periphery of the five centres were visited. These establishments were most commonly used by resort ecotourists. Establishments that are cheaply and easily accessible were visited. Resort owners or knowledgeable employees were interviewed for several hours (Appendix 2). If the researcher could not visit the establishment, the personnel at the booking office in Quito were interviewed. In general, the resort personnel interviewed were eager to cooperate and give additional information so that a complete picture of the establishments could be obtained.

River-tour operators are important for the budget ecotourist infrastructure. One employee from each tour company was interviewed (normally a guide) in the town of Pto. Misahualli where most tour companies are based. Minor centres were disregarded. The interview questions pertained to the location of the tours, numbers of tourists, staff, years of experience, and costs (Appendix 3). As well, several guided tours were taken to experience first hand what tourists are offered.

3.3.2 Tourists

Budget Ecotourists

Thirty-three budget ecotourists were interviewed for information relating to spatial movement, transportation, impact on the economy, expenditures, hotels, food, and length of trips (Appendix 4). The sample size was small because it was low tourist season during the time that research was being carried out, and because most ecotourists had similar travel itineraries. Several research methods were chosen for obtaining information: informal interviews, participant-observation, and observation.

Twenty of the interviews took place in Pto. Misahualli after the respondents had finished their jungle trips. The majority of the remaining thirteen were interviewed in Quito. The length of the interview was between half-an-hour to two hours. The interview was usually informal, although a set number of questions was asked during the course of the discussion (Appendix 5). The informality of the interview permitted the information to flow more naturally and, by relaxing the interviewee, enabled

the interviewer to ask more specific and personal questions and to explore new information in more depth. Tourists were normally eager to share their jungle experience with the researcher and to offer ideas on how the tourist experience could be improved. This interview process reflected a cross-section of different types of budget ecotourists. A comparison of the tourist interview data with the information acquired from interviews with tour guides reveals similar trends in budget ecotourism.

The participant-observation method was also used to gather information about budget ecotourists. The researcher participated in several of the more typical jungle trips. These jungle trips enabled the researcher to determine the budget ecotourists' return on invested money, to assess the quality of the guides, the infrastructure, accommodation, and meals, and to observe tourist behaviour during a jungle trip. The researcher participated on two trips of one day each, one trip of two days and one trip of four days.

The amount of money spent by budget ecotourists during their trips can be extrapolated by examining responses given by tourists during interviews.

Resort Ecotourists

Resort ecotourists were much more difficult to interview because of the short period of time they stayed in Napo and because of their tight itinerary. Instead, the tour operators or employees of companies from which resort ecotourists normally bought jungle trip packages were interviewed. Expenditures by resort tourists were determined by examining the cost of the packages they purchased. The pattern of tourist-movement and expenditures was determined from information given by the tour operators. A standard set of questions pertaining to resort ecotourists was asked (Appendix 6).

Information about the volume of tourists travelling in Napo was limited. The total volume of tourists was estimated by considering: the maximum capacity of tourist accommodation and the occupancy rates (given by interviewees) during high and low season, as well as the total of the departures of tourists from Pto. Misahualli.

3.3.3 Case Study of Pto. Misahualli

The data for the case study of Pto. Misahualli was gathered from interviews with local people who are involved in some aspect of the ecotourism industry, for example, hotel and restaurant owners, river-tour guides, waiters, waitresses, cooks, and boat operators. Local tourist attractions were visited, and jungle trips were taken to investigate the hinterland.

Specific information relating to the jungle tours was obtained by reviewing the ecotourist records kept at the port control station. Statistics were compiled on the number of tourists taking trips, the cost of the trips, the number of trips that each tour operator undertook, and the major locations of a jungle tours.

3.3.4 Potential for Sustainable Ecotourism in Napo

All information relating to Napo was reviewed, including the development options like colonization and the petroleum industry. The economic, social, environmental and cultural impacts of each of the three major economic activities, petroleum, colonization and ecotourism were compared and contrasted. Information obtained from spending extended periods of time in Napo and from interviews with park personnel, guides, locals, and tourists helped to determine the present and future state of Napo. This data was compiled and organized to evaluate the sustainability of ecotourism for Napo.

CHAPTER 4: TOURISM RESOURCES

4.1 Introduction

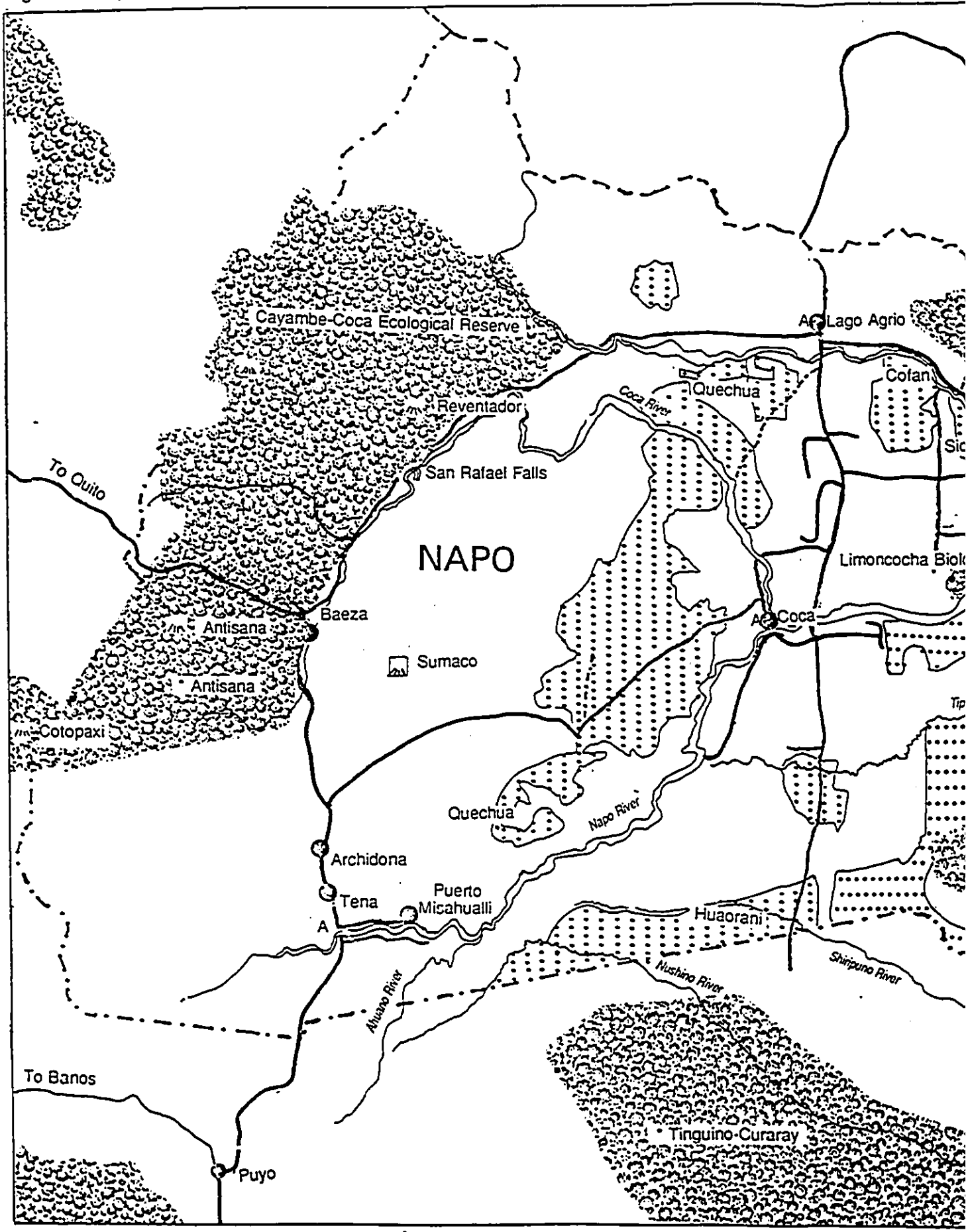
Naturalists, explorers, and missionaries have historically been attracted by the biotic diversity and by the Indians of the Amazon. The naturalists were primarily interested in finding new species of plants and animals; the explorers searched for gold and a quick passage across the continent, and the missionaries looked for souls to convert to Christianity. Ecotourists search along the river network for both the biotic diversity and the Indians that are best seen in fluvial areas. Because remote areas have not yet been affected by the quest for oil and by modern colonization, and because road corridors can be accessed only by rivers, fluvial transport is an essential part of the jungle experience. The most popular ecotourism areas are therefore concentrated along the rivers.

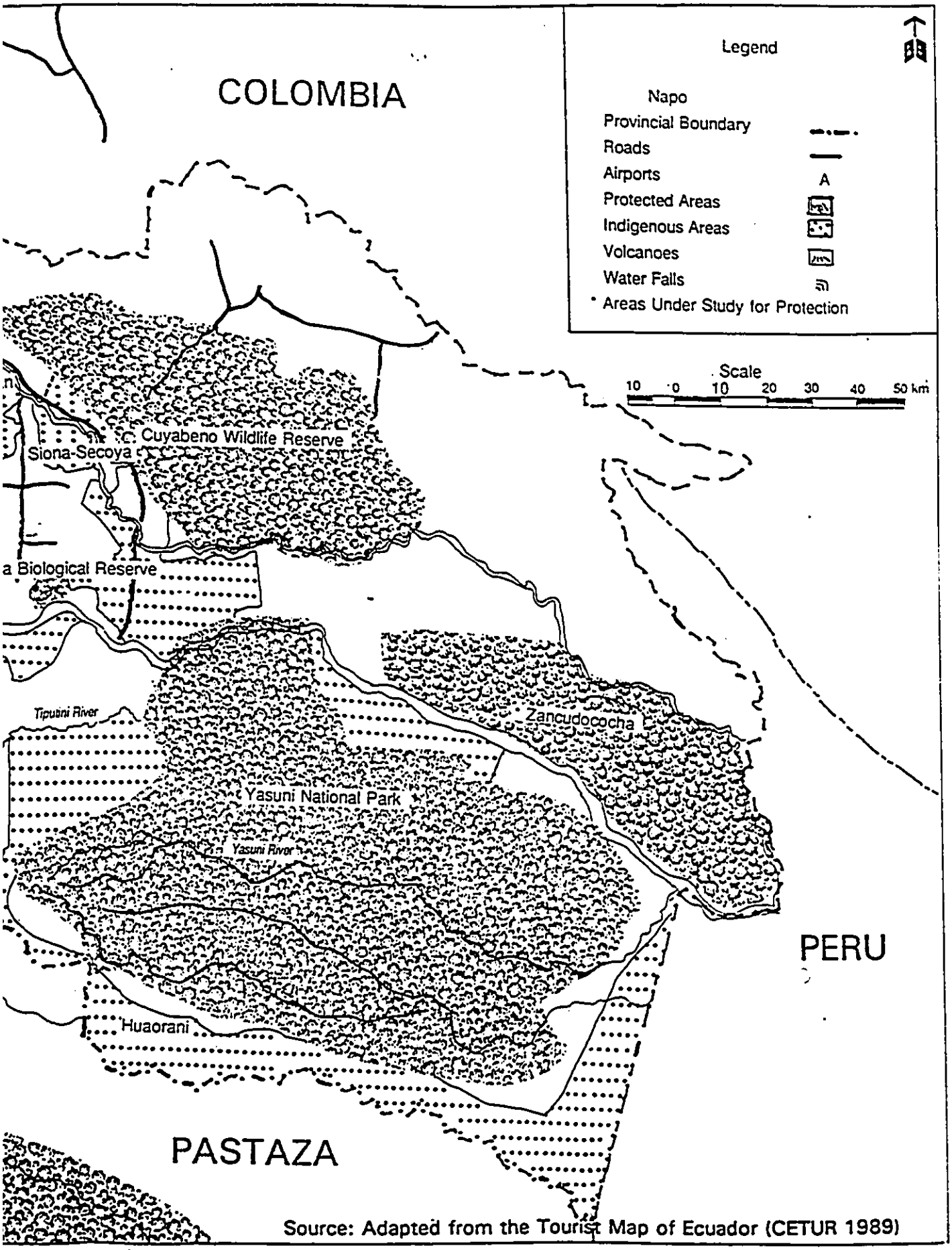
The purpose of this chapter is to discuss ecotourism resources. All of the resources are integral to the tourist experience, and will be discussed under the categories of environmental, cultural and infrastructure resources.

The environmental and cultural attractions of Napo are pinpointed in Figure 2, "Napo: Tourism Resources Environmental and Cultural", which demonstrates the spatial distribution of many attractions along the fluvial and ground transportation routes.

Tourism infrastructure resources are a spin-off from oil exploration. Most of the hotels and restaurants, and many of the transportation routes, were not initially built for tourists, but for oil workers. There are, however, ecotourist resorts that were built specifically for high-paying tourists. The government has only recently increased its involvement in these resorts through publications and the gradual implementation of tourist laws and regulations. This involvement resulted from the government's desire to increase tourism to gain foreign currency.

Figure 2. Napo: Tourism Resources (Environmental and Cultural)





Source: Adapted from the Tourist Map of Ecuador (CETUR 1989)

4.2 Environmental Resources

Photo 1: The eastern slope of the Andes mountains with the Coca River in the foreground.

"In February 1541, after serving Pizarro in the conquest of the Inca empire, a group of Spaniards led by Francisco de Orellana left the city of Quito and went east, looking for new kingdoms to conquer. They crossed the Paso de Guamani, a bleak Andean moor distinguished chiefly by its constant cloud cover and cold, driving rains, and from there they plunged down rugged slopes draped with the mossy tangle of cloud forest vegetation. After ten months of wandering in this dripping wilderness Orellana and his men had descended over 13,000 feet in elevation, but they were a scant 100 miles east of Quito. When they emerged from the mist shrouded foothills of the Andes, they became the first Europeans to enter the vast lowland rainforest of the Amazon basin. From the junction of the Rios Coca and Napo near the base of the Andes, the forest stretched unbroken save for scattered patches of natural savannah for over 2000 miles to the Atlantic Ocean" (Forsyth and Myata 1984, pp.207-208).

Photo 1 shows an example of the spectacular scenery that is found in the Andes mountains, and the quotation above exemplifies the transportation problems early travellers had when traversing the highlands. This rough terrain and climate were obstacles to development in Napo. Even now, the

steep slopes, the earthquakes, and heavy rainfall make the roads impassable for several weeks each year.

The difference in height from the highlands to the lowlands is 4000 metres. There are three major zones located in this region; the Andean zone, at 1000 to 6500 m, the pre-Andean zone generally at 600 to 1000m (with some isolated peaks at higher elevations), and the lowlands, below 600 m in elevation. The Andean zone is described by Sourdat and Custode (1986) as containing glaciers, volcanoes (Cayambe, Antisana, and Reventador), high rocky craters, and paramo- or moor-like vegetation in the high areas, with volcanic ash and debris covering the surface. Many of the volcanoes are accessible to tourists who are accompanied by a guide (Rachowiecki 1987), but these trips normally have to be organized in Quito. The bus rides through these areas are mesmerizing not only because of the spectacular scenery, but also because of the precarious roads.

The pre-Andean zone is characterized by many karst formations in the upper Napo watershed with steep slopes and ridges modified by clay and sandstone areas, and rugged relief. The pre-Andean zone contains the volcano of Sumaco and numerous caves. The Jumandi cave, located several kilometres north of Archidona, is the only one that has been exploited as a tourist resource. Before accessibility to the lowland region was improved, the pre-Andean area was the main tourist zone. The view from the east side of the Andes from this area is spectacular: the volcanoes and mountain range are easily visible on a clear day.

The third zone, the lowlands, is characterized by an area of old piedmont that is relatively flat with fluvial terraces, marshes and low hills. The lowlands have the highest number of ecotourists. This area has a more gentle landscape, most rivers are easily navigated and therefore safe for tourism. Distant and isolated areas are accessible by the extensive fluvial system. It is the least developed part of the rainforest; therefore, it is more likely to shelter exotic flora and fauna.

Fluvial Tourist Corridors

The fluvial system in Napo provides important transport corridors for tourism. This area of water and land interaction is rich in biotic diversity and culture. Figure 2 shows the rivers that are important for tourism.

The rivers of Napo may be divided into two broad categories: those that are wide and highly navigable, and the tributaries of the rivers that are narrow and not as easily navigable. The vegetation along the large rivers is secondary growth because of the impact of Indian villages and of farming by colonists. The vegetation along small rivers is primary rainforest that is not currently affected by development except in the vicinity of the Pto. Misahualli staging centre (Figure 2). Large rivers are up to 500m wide and two meters deep, and are navigated by canoes powered by outboard motors. These motors cause a significant amount of noise and pollution, and decrease the chances of seeing wildlife. The large rivers are used to travel "quickly" to isolated regions. Those used for tourism, in order from north to south, are the San Miguel, Putumayo, Aguarico, Napo, Yasuni, Cononaco, and Curaray. Smaller rivers are shallow, less than two meters in depth and only ten to twenty meters wide. Small canoes are paddled or poled up river, and the chance of seeing wildlife is therefore increased. The small rivers important to tourism are the Tiputini, Tiriguino, Arajuno, Puni, Cuyabeno, Shiripuno, Huambuno and Nushino.

There are many lakes in Napo that are isolated from colonization and oil exploitation. The openness of lakes allows some relief from the dense jungle and for the visibility of the canopy. One of the main lakes that is being exploited for tourism in Napo is Limoncocha. In the Cuyabeno Wildlife Reserve there are many seasonal lakes that have their own unique set of conditions. The other lakes that can be seen with relative ease are the lakes of Panacocha and Garza Cocha, and Lagarto Cocha, which are located just off the Napo river, down stream from Coca.

Biological Resources

Neotropical regions are the most biologically rich in the world with well over 90 000 species

of plants. Ecuador, despite its small size, possesses an enormous portion of this rich flora. It is estimated that there are more species of plants per area unit in Ecuador than in any other country in South America. The presence of cloud and humid tropical forest on both sides of the Andes is partially responsible for the diversity. Unfortunately, the neotropical region has not been as fully inventoried with respect to flora and fauna as have other areas, and there is a need for these inventories to plan for conservation (Forsyth and Myata 1984).

Although there has not been a thorough inventory of species in Napo, a small study by Forsyth and Myata (1984) revealed that in "the upper Amazon basin in Eastern Ecuador as many as 80 species of frogs may live within sight and sound of each other, a richness of species in a single square mile that rivals that of the entire North American Continent" (p.171).

Problems and Constraints of the Environmental Resources

Napo possesses many environmental resources. Unfortunately, much of what it has to offer is being destroyed at a very rapid rate by the combination of petroleum exploitation, small farmer colonization and, to a limited extent, agribusiness. The reliance on the river transportation system also limits exploitation of tourism in Napo. Because of the fluctuation of water levels with changing seasons, rivers become dangerous to navigate in the wet season (May to August). High water levels, for example, create enormous rapids and whirlpools that can draw a ten meter canoe under water. During the dry season (September to April), water levels are low and large boats cannot get through. Lakes are cut off from tourism because of low water levels during a period when numerous wild animals are concentrated around the lakes. Conversely, in the wet season when water levels are high and the area is accessible by canoe, the forest may be covered in several metres of water and visibility of wildlife is decreased.

Another limitation is the instability of the Andes region because of its earthquakes and volcanic eruptions, that may trigger landslides, and due to high precipitation, which loosens soils.

4.3 Cultural Resources

Introduction

"In 1970, the Cofan territory was treated to cataclysmic change when the Texaco-Gulf consortium established its base camp at Santa Cecilia. Planes and helicopters bearing foreign and national explorers with their tents, guns, dynamite, motors, canned food and the like descended. Within months oil bases with new airstrips, more planes and helicopters and then oil drilling equipment followed, after which came rigs and then a road and 315 mile pipeline cutting the Cofan territory into ribbons of nationalized infrastructure. Ecuador capitalized on the external exploitation of petroleum to send waves of colonists and businessmen into the territory. While Quito planners and developers and SIL linguists talked of protecting the Cofan and of creating a park for them so that they could be exploited more effectively for tourism, the colonists were flown into their territory and proceeded to take over native gardens. Given the devastation of Cofan culture and territory, it is nothing short of remarkable that anything exists today of the Cofan" (Whitten 1978, p.39).

The following section is a brief overview of the state of the indigenous people of Napo. They are the most important element of the cultural landscape for tourists. Topics discussed are their location, problems, a description of major indigenous groups and their degree of westernization, impact or degree of tourist exploitation, and indigenous organizations.

Barral (1986) states that below 600m altitude, the population of an area is traditionally fluvial along navigable corridors. This method of populating an area allows for a maximization of resources. Indigenous people cultivate only alluvial terraces. Transportation of crops and people is facilitated by the river, and fishing is important for protein. Thus the indigenous settlements, except for the Quechua, still remain largely river-oriented. Indians make extensive use of large interfluvial areas as is indicated by the spatial pattern of protected areas (Figure 2), while colonists are predominantly road-oriented.

Cultural attractions for the Napo are listed in tourism brochures and tour itineraries for Ecuador's Napo. There are numerous opportunities for the tourists to visit indigenous settlements and learn about their lifestyle. For instance, indigenous homes can be visited, and demonstrations of current farming practices and hunting techniques are given to tourists. As well, tourists can learn about the social and cultural problems that indigenous people face since the invasion of their land by colonists and its despoilment by oil exploitation. Interviewes were carried out with

indigenous people who were involved in the tourism industry. The interviewees consisted of river tour guides, owners of tour companies, owners of handicraft stores, and home owners who rented space to tour groups, cooks, and auxiliary guides.

At the present time, there are both Amazonian indigenous groups that are isolated from western contact and others that are in contact with tourists on a regular basis. Many sell handicrafts to local Napo handicraft stores or to intermediaries who market them in large urban centres. On the main streets of Lago Agrio, indigenous people dress in traditional costume and sell handicrafts. Until recently the indigenous people have not been involved extensively in ecotourism. There are signs, however, that this is changing; for example, indigenous river tour offices are opening in the town of Tena, several native guides encountered in Quito were starting to organize their own tours, and some native groups had opened their own handicraft store.

A 1989 publication by the organization Confederación de nacionalidades indígenas del Ecuador (CONFENAIE) (1989) divides the Amazon indigenous population into six groups. Quechuas of the Napo, Cofanes of the San Miguel, Sionas of the Cuyabeno River, Secoyas of San Pablo, Shuar of the Rio Conambo, and Huaorani of the Rio Curaray (Figure 2). Only four, however, are of importance to Napo and these will be discussed in detail. Most of these indigenous groups (Federación de Organizacion(s Indígenas del Napo (FOIN), Federación de Comunas Unión de Nativos de la Amazonía Ecuatoriana (FCUNAE), Federación de Organizaciones Indígenas de Sucumbios del Ecuador (FOIS-E), Asociación de Centros Sionas-Secoyas, Nacionalidad Huaorani, and Nacionalidad Cofán) are part of various organizations that are involved in trying to control their destiny and assure basic human rights. A specific mandate for tourism was not found in the organizations, but discussions with various individuals revealed that they were not against tourism as long as it was on their own terms and developed by them.

These indigenous groups hold similar concerns about the present state of the environment and their treatment by foreigners and non-indigenous Ecuadorians. They are concerned about the loss of large areas of land due to concessions given to the oil companies and to colonization, and for the

creation of national parks and reserves. The greatest problems arise because of prohibition of hunting and fishing, two important elements of the indigenous lifestyle, in National Parks and protected areas such as Yasuni. Ecological degradation by the petroleum industry and colonization is causing irreversible damage.

The environment of the rainforest is hot and humid, which causes the built infrastructure to biodegrade quickly. Rebuilding traditional houses, and following traditional ways of hunting and living is one option that Indians can use to preserve their culture and at the same time receive some financial benefit by attracting tourists to view their traditicnal lifestyles.

Indigenous Cultures of Napo

Quechua del Oriente

The Quechuas are the most numerous group of indigenous people in Napo, with an estimated population of 25 000. They are part of a larger population of 60 000 that extends into the neighbouring provinces to the south.

The Quechuas are mainly located in the pre-Andean zone between Baeza and the Pastaza boundary (Figure 2), often interspersed with colonists. Since their displacement by colonists they have spread along the new road from Archidona to Coca and into the colonization zone between Lago Agrio and Coca. Their use of their territory has been limited by colonization, petroleum exploration, and the formation of national parks and reserves. The Quechua encountered in both urban and isolated areas were westernized to some extent: they wore western clothes, and cultivated coffee to sell at the market.

Cattle raising has been a strategy of land occupation for colonists. It has degraded the quality of the soil and, as a result, indigenous farmers have been forced to ask for help from development agencies and credit offices.

Cofan

The total population of Cofan Indians in Napo is approximately 300. They are located along the Aguarico and San Miguel rivers. The Cofan have been ceded land, 3 873 hectares near the Aguarico river, and 9871 hectares in other areas. Their territory is partially in the Cayambe-Coca Reserve. They make handicrafts such as necklaces from seeds, feathers, and animal teeth that are sold to tourists. A small group of Cofan have formed their own community up river from Dureno, and are currently working as guides and researchers for foreigners (Hooper 1989).

Siona-Secoya

The total population of the Siona-Secoya in Napo is 600. They are located along the Aguarico, Shushufindi, and Cuyabeno rivers. The cultures of the Siona-Secoya were originally separate groups, but they were forced together by the missionaries in 1955 during the evangelization period (Benitez and Garcés 1989).

The Siona Indians are tour guides, boat operators and guards in the Cuyabeno Wildlife Reserve. They have a special arrangement with the Department of National Parks to control entry into the reserve (Gradwohl and Greenberg 1988). It has been praised as a unique arrangement that allows the local people to control their traditional lands and gives them some power to control their future. They make different handicrafts such as feather crowns and necklaces. These are sent to markets in larger urban centres or are sold locally to tourists.

Huaorani

The population of Huaorani totals 500. They are located from the Tinguino River south to Villano and the Curaray, Cononaco and Shiripuno Rivers. This indigenous group has been the most aggressive in fighting westernization and the infringement of foreigners on their land. One group was responsible for the deaths of five priests in 1956 and a priest and a nun in 1987. In 1959 they were forced into protected areas (1605 km^2) by the Summer Institute of Linguistics. In the 1970s they

redispersed into their former areas (Benitez and Garcés 1989). Whitten (1978) suggests that there are several states of the Huaorani people, those that still live on the mission near Tinguino where they are multilingual, and those that live away from the mission, and who conserve their traditional way of life and their culture. These people hunt, fish, and live in small houses and they do not wear western clothes. The most acculturated Huaorani are independent of the mission control and work in the petroleum and agriculture industries.

From 1980 to 1984, 716 000 hectares were given to the Huaorani. Unfortunately, concessions for oil exploration were given to several petroleum companies on the same piece of land (Benitez and Garcés 1989). This has led to a land invasion by the petroleum industry and a build-up of infrastructure to support it within the Huaorani territory. The Huaorani encountered in 1989 by the researcher in a newly constructed village, located approximately 10 km south of the Tinguino River, were living in deplorable conditions (Photo 2). The houses were small and the land barren. They wore western clothes but did not speak the Spanish language. A recent report by Kimerling et al. (1991) states that these Indians are abandoning their traditional lifestyle by selling their food in exchange for money and western goods.

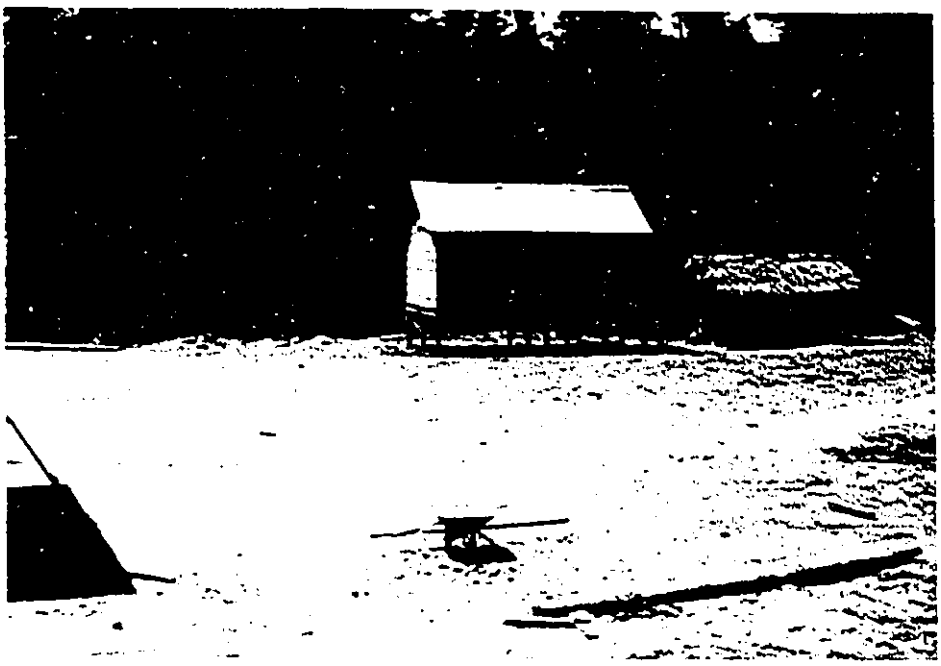


Photo 2: A house in a Huaorani village recently constructed by the oil industry.

Future Involvement of Indigenous People as an Ecotourism Resource

Although there are many indigenous groups in Napo, the majority do not have frequent contact with tourists. Some of the Indians are hired as tourist guides in Pto. Misahualli and in the Cuyabeno Wildlife Reserve, but they do not own their own river-tour companies. They are hired by non-natives and are assistant guides for many trips because they are very good at tracking and are the most knowledgeable about the jungle.

If this resource is to be further developed it should be done carefully. At the present time, there is some exploitation of Indians in isolated areas. Some non-indigenous guides force the indigenous people living close to tourist routes to accept tourists into their homes. These indigenous people are not compensated for their "hospitality" with either gifts or money. The Indians have no recourses to

stop the abuse. In contrast, in areas where ecotourism is better developed such as in Pto. Misahualli, the guides pay the Indians to take care of the camps and to cook for tourists.

If entrepreneurship by indigenous people continues, for example, the opening of new businesses, perhaps the indigenous people will eventually have a larger share of the tourist market, and, as more education takes place by both the tourists and the Indians, perhaps tourists will be more likely to choose native people as guides.

4.4 Protected Areas

Introduction

In the last decade, Ecuador has set up a park system in conjunction with the World Wildlife Fund. The objective of the system is to preserve, conserve, and administer sectors of the natural heritage of the country so that future generations can enjoy them. The protected areas system in Ecuador started in 1959 with the formation of the first national park in the Galapagos; however, most of the protected areas were institutionalized in the 1970s and the 1980s (Table 4.1). Protected areas comprise a total of 2 865 477 hectares, ten percent of the total land area of Ecuador. Officially, there are 1 870 544 hectares of protected land in the Amazon region of Ecuador and in joint protected areas with the Sierra. The levels of protection range from recreational areas with little protection to highly protected fauna and biological reserves.

Table 4.1 Protected areas in Ecuador's Amazon region

Type and Year Created	Region	Size (Hectares)	Ecosystem
Yasuni National Park (1979)	Amazon	679 000	Humid tropical rain forest
Cayambe-Coca Ecological Reserve (1979)	Sierra-Amazon	370 000	Humid tropical rainforest, moor
Cuyabeno Wildlife Reserve (1979)	Amazon	300 000	Humid tropical rainforest, moor
Limoncocha Biological Reserve (1985)	Amazon	5 261	Humid tropical rainforest
Areas Under Study			
Zancudococha	Amazon	DNA	Humid tropical rainforest
Antisana	Amazon	DNA	Humid tropical rainforest
Tinguino Curaray	Amazon	DNA	Humid tropical rainforest

DNA = Data Not Available
Source: DITURIS 1989

The protected areas in Napo attract a large number of tourists; however, many of the more isolated parks are not frequented because of their distance from populated areas. Transportation to the protected areas normally entails a combination of air, ground and river transport. The political tensions between Ecuador and Peru, have resulted in a strong military presence and greater difficulties in travelling to the boundary area by foreigners. In 1989, for example, two rivers, the Shiripuno and the Tinguino, were blocked from tourists by the military. As well, the researcher was refused access to public transport to Nuevo Rocafuerte without a guide.

In the following section, the various protected areas found in Napo are discussed with respect to physical parameters, use by ecotourists, and the problems associated with protecting the area.

Limoncocha Biological Reserve

The Limoncocha biological reserve, formed in 1985, is an area formerly used by the Summer Institute of Linguistics (SIL), the principal protestant missionary operating in the Napo from 1955 to 1985. The reserve encompasses a land-area of approximately 5 000 ha and is located two hours down river from Coca on a small tributary. It has one of the highest diversities of bird species in the world at 500 species. Night motorboat tours are offered on the lake to view caimans and fluorescent

plants and to listen to night sounds. The missionary museum of Pompeya is available for public viewing before arriving in Limoncocha. Signs of the former SIL, such as the airport runway, the generator, and western style bungalows, are still present. The surrounding area is still virgin jungle where large trees, animals such as monkeys, and a variety of insects and bird species, can be seen. Local residents can be hired for the day to guide hikes in the jungle.

The ecotourism infrastructure consists of a hotel built in conjunction with the Flotel Orellana on the shore of the lake, with a capacity for 50 people. Another smaller hotel is used by independent budget ecotourists or organized budget ecotourists from Pto. Misahualli, and holds up to 30 people. As well, one of the local entreprenaurs will rent space in his house for budget ecotourists with their own sleeping gear. Finally a campground used exclusively by river tour guides is located in the area.

In the DITURIS 1989 statistics on park visitation, between 2 676 and 3 127 official visitors came to the park in the late 1980s. The largest number of visitors come with the Flotel Orellana, a large paddle wheeler (Photo 3).

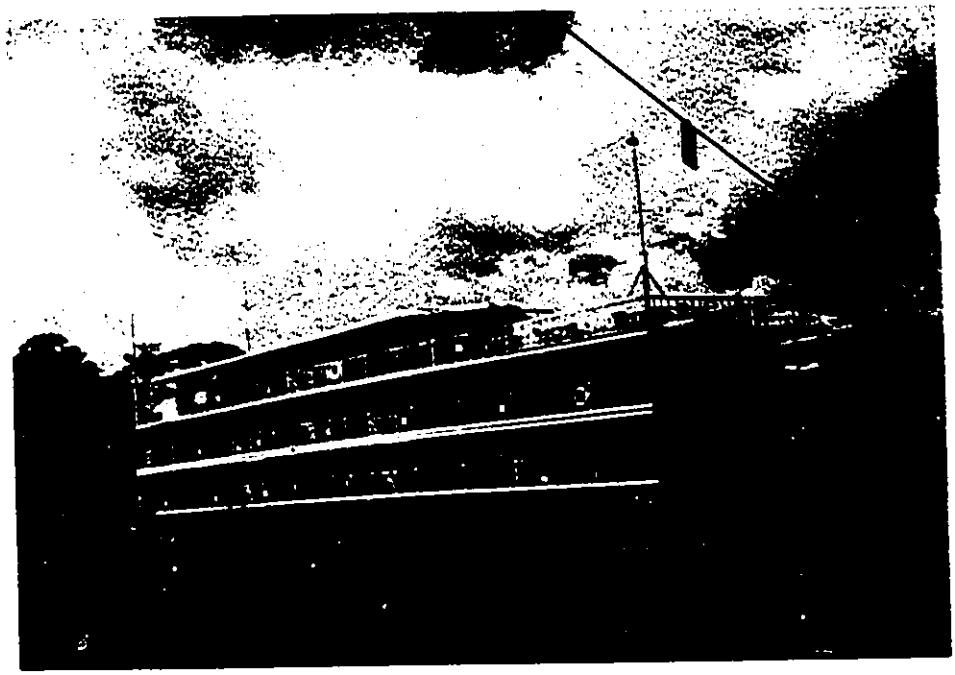


Photo 3: Flotel Orellana: a distinctive hotel paddle wheeler located on the Napo River.

The Limoncocha biological reserve is now accessible by road during the dry season (Photo 4). Recently, one of the oil consortiums began petroleum exploration in the reserve and the lack of environmental controls may lead to spills and a contamination of the local environment (Kimerling et al. 1991). Ecotourism and migration of small farmers to the area has increased. Land area surrounding the reserve is being converted into farms.

Photo 4: A newly constructed road to Limoncocha.

Cayambe-Coca Ecological Reserve

The Cayambe-Coca Ecological Reserve is located on a cross section of land from the Paramo of the high Andes to the tropical jungle. This area contains ecosystem types that are representative of the region. There is very little infrastructure in this reserve and it is not highly visited, with only 2 708 tourists per year (DITURIS 1989).

Cuyabeno Wildlife Reserve

The Cuyabeno Wildlife Reserve is considered a model tropical reserve. It is located in an area extraordinarily rich both biologically and culturally and it stands at the frontier of Amazonian development. It was selected by the Department of National Parks after a long survey of important natural areas between 1974 and 1979. The reserve plan incorporates strict protection of forest and stream-side habitats. It also encompasses a Siona-Secoya Indian reserve, and has a tourism and wildlife management program. The Ecuadorian Department of National Parks and Wildlife ranked its master plan first among all others (Gradwohl and Greenberg 1988). Created in 1979, the reserve covers 254 760 hectares of interfluve and flood plain forests in the north-eastern part of Napo. The unique feature of the reserve is its five principal lakes, which are interconnected at high water levels and become almost dry in low water levels. This fluctuation in the water levels results in a very high concentration of animals in small areas during the dry season; whereas, in the wet season, it is possible to canoe through the tops of the forests and view orchids and bird species that are otherwise difficult to view (Photo 5). The core of the reserve is isolated because the main lagoons have to be visited via rivers, and it takes several hours to get to the area by boat.

At the present time, only about 500 tourists per year come to this area. The infrastructure consists of several typically indigenous huts with hammocks, kitchen facilities, and an outhouse. The Universidad Catolica of Quito also has a research station on the largest lagoon. Additional tourist facilities are being developed by the reserve administration in coordination with local communities and Quito-based tour companies.

Photo 5: The Cuyabeno Wildlife Reserve

Despite the comprehensive management plan and the involvement of the local indigenous people in its protection, many problems plague this reserve. A road to service an oil pipeline was built through the reserve. Oil contaminates the river system from pipeline leaks and from the oil that is spread on the road to keep the dust down. Furthermore, the road has split this ecosystem in half, which has altered the movement of wildlife within the ecosystem and has changed river flows in the area (Kimerling et al. 1991).

The road has led to an influx of colonists that have set up farms and have refused to leave. They have recently gained legal title to their land and are presently farming within one kilometre of one of the lagoons. Another land area is ceded to IERAC (Institute for Colonization and Agrarian Reform). Four hundred and ten Siona received legal land title to the land, which may act as a buffer to the direct effects of encroaching colonization.

Increased tourism and infrastructure will lead to more environmental destruction and cultural

problems when more of the local people are brought into ecotourism. Increased numbers of boats with outboard motors have worsened pollution.

In the dry season, access to the area is considerably more difficult as the main access river dries up and one has to take the Aguarico River and then the Cuyabeno River to get to the area. In the dry season, many of the lagoons are inaccessible because of the lowering of the water levels.

Yasuni National Park

Yasuni National Park is the largest park in Ecuador. Yasuni has diverse wildlife, as well as unwesternized indigenous people (pers. comm. Trevor, 1989). It has limited infrastructure, so little, in fact, that one can travel along several kilometres of its borders and not know there is a national park in the vicinity. There are no signs or buildings to indicate the boundaries (pers. comm. Peck, 1989). It is the most isolated national park in Ecuador, there is no ground or air travel, and it is the furthest park from the road system. It is a twelve-hour motorized boat ride down river from the town of Coca to the park entrance and a two-day boat ride to return upriver.

The area's isolated location protects it to some degree from the development of tourist infrastructure because of the cost and lengthy time of travel to the park. There is, however, competition for the natural resources contained in the park. The area is becoming less isolated as seismic exploration and drilling for oil occurs (pers comm. 1989 Mercedes). A road through the area has been finalized and pegged out for the facilitation of exploitation of oil despite protests from many environmental and indigenous groups. Small farmers have already started to colonize in the area in preparation for the road.

The military base at Nuevo Rocafuerte, located near the Ecuador Peru border, uses the area as a target range and they have shot most of the animals along the forest edge. Sometimes they insist on accompanying the guided tours and practice their shooting on the wild animals they see.

Areas Under Study

There are three more areas in Napo that are under consideration for receiving protected status: Zancudococha, Artisana, and Tinguino-Curaray. At the time of writing none of these areas had received official status as a protected area.

Conclusion

The management plans for the National Parks in Ecuador's Napo have been written in conjunction with the World Wildlife Fund (WWF) and the Department of National Parks (Pers. comm. F.Coello 1989). Unfortunately, the lack of funding for the infrastructure and park patrol system has hindered the progress of these plans. With increased recognition of the protected areas in the Ecuadorian Napo, pressure will be put on the government to control the treatment of these resources. Currently, however, the petroleum companies and the colonists have much more control over these areas than those that wish to protect them. Their activities provide better immediate economic returns than preservation; therefore, they are given priority.

4.5 Infrastructure Resources

Introduction

The most important economic activities in Napo are oil and colonization; therefore, much of the current infrastructure was established for them. This infrastructure is also used by tourists because it is the only infrastructure available. An infrastructure that is well-suited to tourism is lacking in most areas. Originally, the tourist infrastructure was confined to the pre-Andean zone (Figure 2). Since the initial road link from Quito was via Puyo, Puyo was the main centre for tourism. The towns of Tena, Archidona, and Baeza, have much more limited tourism. Expansion of the road infrastructure has changed the emphasis of tourism from the pre-Andean zone to the lowlands. Pto. Misahualli, located at the contact zone between the pre-Andean zone and the lowlands, has developed as a major tourist area and the two oil towns of Coca and Lago Agrio have increased tourism.

Transportation

One of the main reasons that Napo was isolated until the early 1970s was the poor transportation system into the region. The Andes are a formidable obstacle and, prior to the oil boom, there was not an economically viable reason to build the road infrastructure.

Road Transportation

The first road into the pre-Andean zone of Napo was built in the 1960s, thus providing access from Ambato via the town of Puyo to the missionary towns of Tena and Archidona (Figure 2). Road building in Napo was not organized by the central government of Ecuador, but began sporadically by Sierra municipalities aiming to expand their influence and land area eastward. Road building was abandoned when interest declined after some years of work (Morris 1987). With the oil exploration of the early 1970sa second road link from the Andes was built and the roads expanded extensively eastward into the lowlands. These roads were built and financed by the oil companies to facilitate oil exploration and exploitation (Figure 2). During the wet season, the roads in the Andean and in the pre-Andean zones are continually subject to landslides and washouts. Roads are typically built on the edges of canyons and are narrow. Every year, several vehicles plunge two hundred metres to the bottom of the Pastaza river canyon. In the lowland area, bridges are frequently washed out.

The schedules of buses from the Andes to Napo vary. During the period of research, they left Quito several times a day to Napo either via Baeza or Puyo. A bus trip from Quito to Tena by the north road is five hours and eight hours by the south road. Buses travel hourly between major Napo towns.

In Napo, there is public transport on all routes, and there is normally ample capacity with the transport companies, which are easily able to adjust to any change in demand. The three main urban centres are Lago Agrio, Coca and Tena which have passenger volumes per month of 60 512, 56 838, and 27 344, respectively (Cruz et al. 1989). Beside the oil workers, the other main users of the roads are the colonists and tourists. Colonists generally use the public bus system and are the greatest number of travellers on the roads. These people are encouraging the up-keep of existing roads and the building of new ones.

Public bus transportation in Napo is the least expensive mode of travel. The cost of a bus from Quito to Tena is approximately $2 US one way, and to Lago Agrio it can be as high as $5 US. Intra-Napo transportation costs are rarely over $1 US. The transportation network for the oil industry is well-built. Since it is of crucial importance to oil companies and colonists, and therefore the national economy, obstacles to road transport are rapidly removed. Less emphasis is placed on the less crucial arteries between Baeza, Tena and Coca. The reliability of the ground transportation system is largely dependent on the climatic and geological conditions (i.e. weak rock structure, high precipitation, landslides, and earthquakes). In 1987, for example, a major earthquake stopped the ground transportation from Quito to Lago Agrio for four months. In 1989, a landslide washed out a bridge between Baeza and Tena. All travellers had to take a bus to one landslide, walk across it, and board a new bus several times on one trip into Napo. In the summer of 1990, there were 17 minor landslides on the Baños-Puyo road that resulted in several deaths (K. Best pers. comm. 1990).

Air Transportation

A number of small airports were built in Napo by the missionaries and military. Tena airport used to be one of the most important; however, it lost its importance because of the five-hour road connection built between Quito and Tena and because of the construction of the larger airports in Lago Agrio and Coca built to serve the oil industry. Air transport is primarily used by the oil workers and secondarily by the tourist industry; a small number of the seats are used by the local people. Several small airfields are used by the oil industry and the missionaries, but are not available for tourist use.

There are flights arriving and leaving daily from the airports of Lago Agrio and Coca, and weekly from Tena. There are nine flights per week from both Lago Agrio and Coca to Quito. Flights during the high tourist season (May to August) have to be booked several days in advance because of the limited number of flights and seats (38 per airplane), most of which are monopolized by the oil industry. Tour operators sometimes have difficulty obtaining enough seats for their passengers, especially those whose destinations is the Flotel Orellana, because they frequently book for as many

as 50 people. The independent traveller will have problems booking a flight on days when there is only one plane departure. Advanced booking or a substantial bribe may do the trick.

A maximum of 71 000 persons per year can be transported in and out of the jungle, but flights are often only half full during the tourist low season (September to April); therefore, there are probably only 35 000 people transported by aircraft. The cost of a flight from Quito to Lago Agrio or Coca is $9 US. There is a small price difference for the tourist versus the local people.

Before the sophistication of the road system, air transport was very important in Napo; however, with the low capacity, limited schedules, and relatively high costs compared with road travel, air travel has become less important. Its clientele is limited to those who can afford to pay foreign oil workers and the tour companies.

Fluvial Transportation

After roads the fluvial system is the primary transport system used in Napo. Before the road system, river transportation was the most important one for communication and transportation. It is used more by tourists who seek scenery, adventure, and access to the fluvial hinterland than by local people who prefer reliability, comfort, and the lower cost of bus transport where it is available (Cruz et al. 1989).

The river transport system is important for tourism from Pto. Misahualli because it is the primary mode of tourist travel from this town. It is the main mode of transport between the towns on the Napo river: Pto. Misahualli to Coca, and Coca to Nuevo Rocafuerte. During the period of research, however, there was not a fixed schedule from the main tourist town of Pto. Misahualli. The cooperatives responsible for the river transportation system had broken up because of conflicts over prices and increases in fares.

In the region of highest tourism, and where road alternatives exist, rivers are used mainly by tourists, but in more distant locations rivers are used by the locals and only to a lesser extent by tourists.

The cost of the fluvial transport system is high compared with other modes of travel. Travelling by boat, for example, might cost $9 US for a five-hour trip. There is a different transport cost for locals and foreigners; foreigners pay 50% more than locals.

The main constraint to the boat transport system is the climate. In the wet season the rivers can have very high water levels and are dangerous to navigate. In the dry season the water levels can be so low that it is impossible to navigate the boat. Passengers often have to help pull the boat over shallow areas in smaller rivers (L. Garcia 1989, pers. comm.). Even large rivers are shallow and carry a high quantity of sediment and water has to be tested continually for depth. Some of the larger boats, such as the Flotel Orellana, cannot navigate during the low water season.

Conclusion

The transport system for the tourist is primarily the same one used by local people and the oil industry workers, except on select river routes. It is necessary to use more than one of the transport systems during one trip into the jungle. The main tourism resources, both environmental and cultural, can be visited only by boat. The most serious problem of the transportation system is climate, which causes fluctuating water levels in the rivers and the surrounding area, and which causes land slides in the Napo region, affecting transportation routes through the Andes on both the south and north roads.

Hospitality Sector

The hospitality infrastructure comprises the lodging and restaurants available to travellers, local population, oil workers, and business people. In the following section, the infrastructure is classified according to the type of tourist it serves. This classification is based on both tourist preferences and the qualitative and quantitative characteristics an establishment contains. Most facilities were built primarily for oil workers and for general business. In the early 1970s, however, a few Ecuadorian entrepreneurs recognized the possibilities for tourism from both foreign and local tourists and built some establishments strictly for them.

There are different qualities of tourist infrastructure in Napo. Rachowiecki (1987) writes that there are "plenty of budget hotels which are cheap, basic and usually look horrible because the rate of deterioration of cheap architecture in the humid jungle is very fast. Some of the oldest and cheapest places are getting a bit rank, so the sensitive might consider it worthwhile staying somewhere more expensive" (p.180). This description contrasts with an article that describes one of the tourist resorts, La Selva: "Sixteen double bed cabins built in the traditional indian style of the region and each with their own toilet and shower perch on a hill overlooking a lake named Garzacocha, Heron Lake. The bar and restaurants hug the shore ready for magical sunsets, macaws, toucans, parrots and a permanent view of infinite green tranquillity" (La Selva, information on pamphlet 1989). The former type of accommodation was built primarily for Ecuadorians in need of an inexpensive place to stay while they worked in the oil and agricultural industries or visited the region, while the latter accommodation was built for resort ecotourists or local tourists who can afford a higher price for comfort. The only place where accommodation has been built specifically for the budget ecotourists is in Pto. Misahualli, where most of the economy is based on tourism. In the hinterland of Pto. Misahualli there are also tourist camps that have been built specifically for the budget ecotourist; otherwise, budget ecotourists normally use the same accommodation as the locals. A typical accommodation for a budget ecotourist is a room large enough for a bed and a chair, and a communal washroom. Rooms in these hotels typically have no windows, mosquito netting, fans, or any other type of luxury, whereas a room for a resort ecotourist usually contains a double bed, closet, desk, private washroom with running water, and room service.

In Tena, Archidona, and Pto. Misahualli, the lodging infrastructure is mainly for tourists; however, in Coca and Lago Agrio the infrastructure is mainly for oil workers and local colonists.

The total bed capacity for Napo is approximately 1750. Expensive establishments (above $US 5/night) represent 32% of the beds. Of the expensive infrastructure, 46% is built exclusively for resort ecotourists, the other 54% is used by foreign or rich Ecuadorian oil workers. Fifteen per cent of the budget infrastructure is for budget ecotourist camps, another 33% is used by both Ecuadorians and budget ecotourists. The remaining 52% is used by workers in the oil and agricultural industries.

Table 4.2 Summary of hospitality infrastructure

Towns	Number of hotels	Total capacity (# of beds)	Employees
Baeza	3	30	unknown
Archidona	2	36	4
Tena	11	343	36
Misahualli	8	150	21
Napo River*	4	180	19
Napo River**	4	185	33
Coca	10	366	18
Napo River***	2(3)	80	58
Lago Agrio	13	349	82

* Budget Ecotourist camps
** Resorts
*** Resorts downriver from Coca
Source: DITURUS 1989

The cost of budget hotels ranges from $1 to $3 US and the expensive resorts normally cost over $5 US per night. Daily costs for room and food at a resort can be as high as $100 US (Appendix 2). The size of the hotels ranges from a capacity of 9 to 100 people, with an average capacity of 27 people.

Camps have been constructed for budget ecotourist accommodation. These camps are built using native architecture and this style of housing keeps ecotourists safe and dry. Each camp generally consists of sleeping quarters and an eating place, and several small huts for relaxation. The sleeping quarters hold a maximum of 15 to 30 people in hammocks. Tourists are usually required to bring their own bedding. The camps are owned by native people or by one of the guides working out of Pto. Misahualli. Their use is exclusive to the guided tour groups.

There are two categories of resort: the older ones established in the late 1960s, which are Ecuadorian-owned, and the newer ones, which have been in operation for less than five years and are only partially Ecuadorian-owned, that is, only the husband or wife is Ecuadorian. The newer ones have been built in response to an increased demand for alternative accommodation and exotic jungle trips.

Each tourist resort is unique. Near Coca there are three resorts, the Flotel Orellana, Primavera,

and La Selva. The most well-known and advertised is the Flotel Orellana. It is a floating paddle boat with a capacity of 50 people. It travels up and down the Napo River offering many different side trips to the jungle and lakes. Primavers is a farm located on the Napo River edge. It serves excellent food and gives tourists an impression of the agricultural activity in the region. The third resort is La Selva, which is an isolated resort located three hours down river from Coca. It is the most exotic tour and the most expensive. The four other establishments which form an integral part of the Pto. Misahualli ecotourist hinterland, are discussed in Chapter 6.

The restaurants in Napo vary in size and quality depending on the clientele they serve. DITURIS (1989) published statistics on the area that stated that there were a total of 27 establishments ranging from restaurants of varying quality to cafeterias. Many of the restaurants are attached to hotels. A very basic restaurant will have a set breakfast, lunch, and supper. All meals consist of a large plate of rice, a small portion of meat, fried bananas, and a slice of avocado or tomato for a cost of $1 US. A meal at a "good" restaurant (there are few), is usually a full course meal with salad or soup and a variety of entrées served by formal waiters and may cost up to $10 US. Food in Ecuador is not prepared in an aseptic environment and is frequently contaminated with bacteria causing dysentery or food poisoning.

There is a variety of entertainment in Napo, including a large number of bars ranging from a shack where coke and warm beer are served together in a glass, to fairly comfortable places where there is live entertainment, a few discotheques, several pool halls, and movie houses. This infrastructure is used more frequently by the local people than by tourists.

Native handicrafts are available for purchase in stores in most towns in Napo. One of the handicraft stores is especially attractive because its owner is famous for wrestling with anacondas up to three meters in length and still retains several on the premises. These establishments vary in size and quality, some sell handicrafts exclusively while others sell handicrafts as a sideline. The majority of handicrafts are produced in the region; however, some may be made by non-natives who have acquired the skills to fabricate the items.

River Tour Companies

To obtain a budget ecotourist trip to the rainforest there are various tourist guide agencies in Napo and outside the region. The companies normally consist of a guide, cook, and boat operator. The largest number of companies are concentrated in the town of Pto. Misahualli. There are 12 River Tour Company offices in Pto. Misahualli, one in Tena, three in Coca, but none could be located in the town of Lago Agrio.

Conclusion

The hospitality sector of Napo serves a wide variety of clientele such as oil workers, agricultural workers, and ecotourists. Emphasis, for the purpose of this research, is placed on the infrastructure for ecotourists. Some of the infrastructure established for resort ecotourists is excellent; there are seven resorts offering unique experiences and comfortable accommodation. But the infrastructure used by the budget ecotourist does not have this variety. There is great potential for improving the accommodation for budget ecotourists. Ecotourists interviewed said they would pay more money to have a window or a fan or private washroom to make the jungle experience more enjoyable. The local hotel owners mentioned that they had plans for improvements but this had not been put into effect at the time of writing. The restaurant business would improve tremendously if a greater variety of dependable food were made available and higher health standards implemented.

CHAPTER 5: TOURISTS IN NAPO

5.1 Introduction

Tourists travelling to Napo are normally looking for a rainforest experience whereby they can learn about the exotic forest and its people. The majority of tourists are from Europe (Spain, England, France, Switzerland, and Germany) and North America, and range from students to professionals and retired people. These people travel alone and in groups to Napo. They can be divided into two broad categories: resort ecotourists and budget ecotounsts. The resort ecotourists expect first class comfort, running water, and western-style food, and limited physical strain. The budget ecotourists, on the other hand, eat local food, live in typical indigenous-style houses, and partake in strenuous hiking in the rainforest. These two tourist types are described and compared in this chapter.

Historical Growth

In the 1970s, the petroleum industry began the construction of new roads in Napo to serve the industry. This growth in road infrastructure facilitated the growth of tourism from very few tourists to an estimated 10 000[1] in 1989. With this increase in tourism, more hospitality and a larger tour infrastructure has been constructed to accommodate the demand.

Originally, ecotourism in Napo was largely confined to the towns of Tena and Archidona. Because of the lack of roads before 1970, these towns represented the frontier of ecotourism in Napo. With the construction of more roads the tourism frontier expanded outward to Pto. Misahualli, Lago Agrio, and Coca. Air access to the frontier towns of Coca and Lago Agrio further increased tourism in these areas. The majority of tourists travel to Pto. Misahualli and its hinterland to visit the rainforest (Rachowiecki 1989, pers. obs.).

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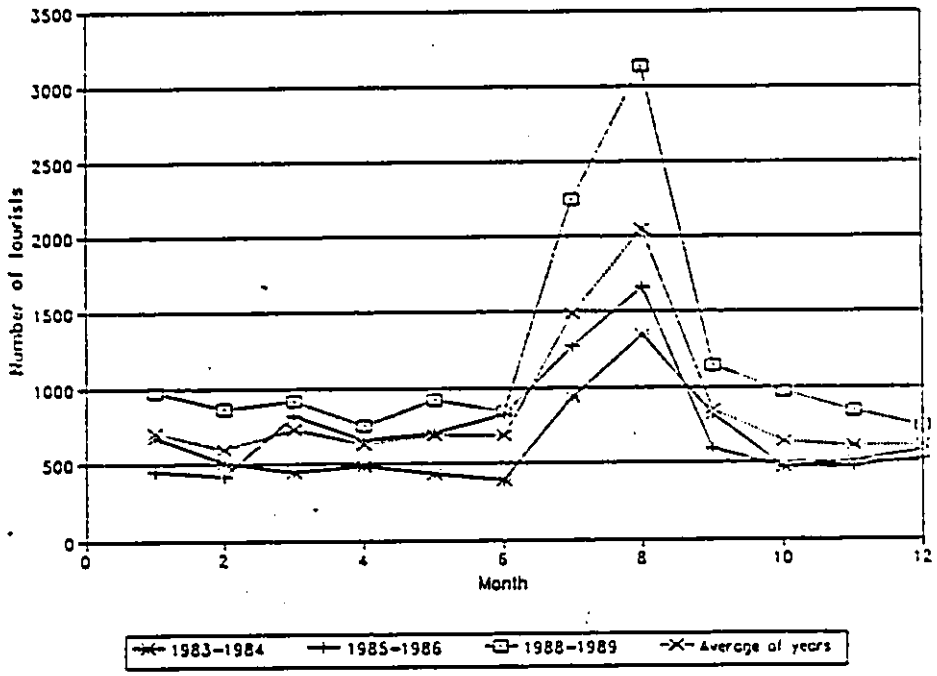
[1]The volume of tourists, although significant is difficult to determine because of the sporadic monitoring of tourists into Napo. There is a military checkpoint in Pto. Misahualli that requires all tourists travelling without a guide or to a resort to register, but this checkpoint covers only part of the tourist route.

Seasonality

The majority of tourists come to Napo during the months of June, July, and August, the summer holidays of the Europeans and North Americans. This fact is illustrated by tourist departures toward hinterland destinations from Pto. Misahualli (Figure 3 A). During this peak season, resorts are booked to full capacity. Low tourist season is from the months of September to May.

FIGURE 3a: MONTHLY TOURIST DEPARTURES
FROM PTO MISAHUALLI, '83-84, '85-86, '88-89



Duration of Tour

The majority of tourists, regardless of their background and type, stay three to four nights in Napo. Factors that limit the length of the stay are the humid hot climate, the types of tours offered, and the amount of money that people are willing to pay for a tour. Most packages offered to tourists range from three to four nights. In this short time the tourists are shown a variety of the cultural and natural resources. Since tourists are normally restricted in time, this short stay is sufficient to fulfil minimum tourist expectations. Tourist travel to the rainforest is relatively expensive, costing up to

$100 US per day for a jungle trip that includes food and lodging. This price is quite high when compared to other travel in mainland Ecuador. As a result, many tourists are willing to pay for only a short rainforest trip. The final determining factor for tourist duration in Napo is that the majority of the tourists have come to see a variety of tourist attractions; Napo represents only one portion of a trip.

5.2 Ecotourists

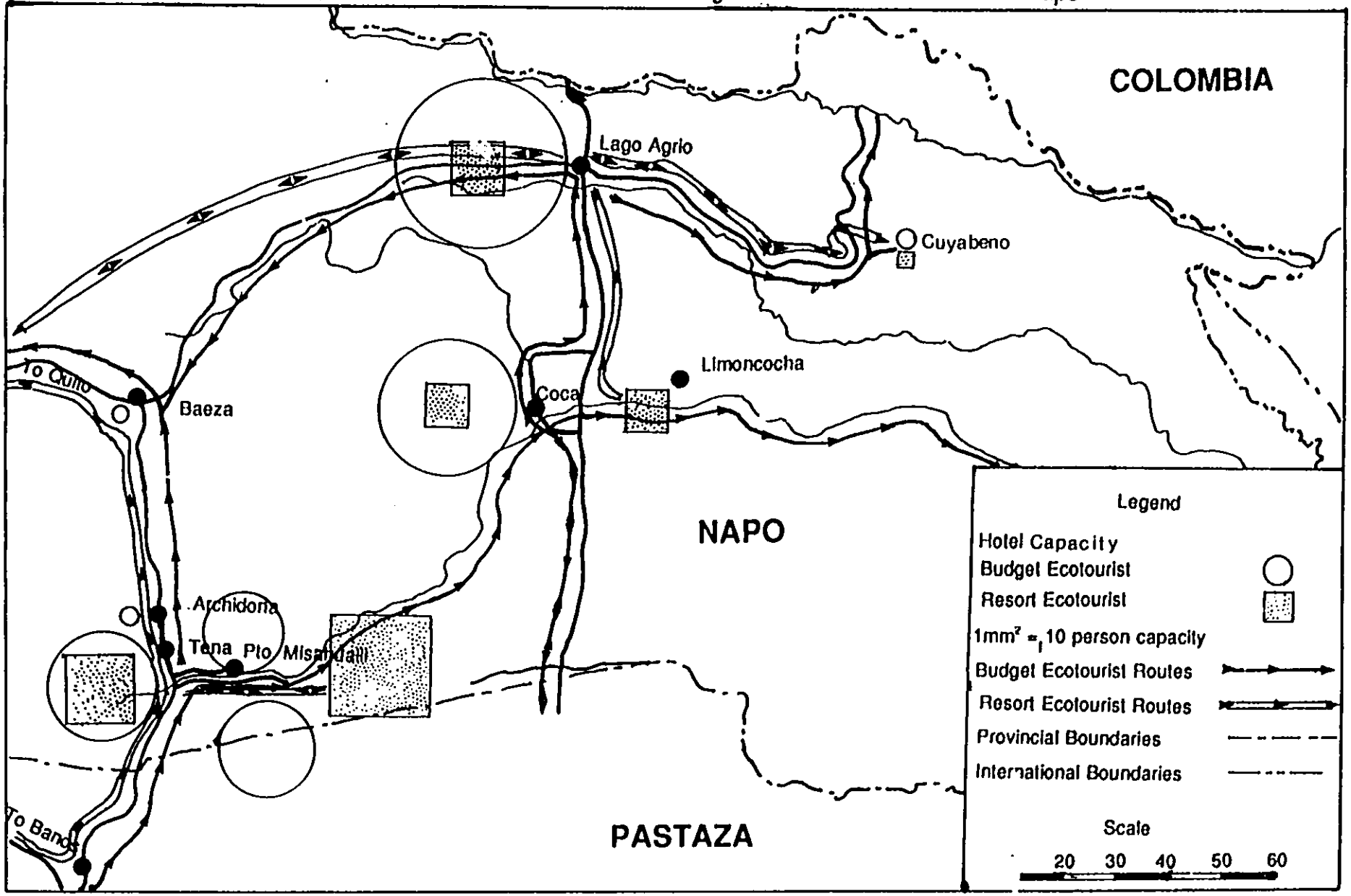
All of the tourists that travel to Napo are ecotourists. As stated in the introduction these can be divided into two broad categories, resort and budget ecotourists. One of the main differences between these groups lies in the degree of organization and comfort that the tourists require. As a result of these needs the resort ecotourist requires a trip that is completely organized. The budget ecotourists generally prefer to organize a trip on their own. They will endure more discomfort in order to see the rainforest (Fennel and Eagles 1990). It was also found that the two different types were distinguished spatially. The resort ecotourists have as a base one of the resorts in the rainforest from which they travel to different locations during the day and to which they return at night. The budget ecotourists normally stay in economy hotels in the frontier towns. During jungle trips they travel to a new location each day and change camps nightly.

5.2.1 Budget Ecotourists

Budget ecotourists are people who travel for long periods of time as cheaply as possible. They are generally students and young professionals who do not want or cannot afford the comforts required by the resort tourists.

Budget ecotourists tend to explore more areas and are generally the first tourists to visit an area; for example, the northern part of Napo near Lago Agrio and Coca. These tourists travel much deeper into the rainforest than their resort counterparts (Figure 3). In the area near Pto. Misahualli, both types of tourism have developed simultaneously.

Figure 3. A Comparison of Spatial Patterns and Movements of Budget and Resort Ecotourists in Napo



A total of thirty-three informal tourist interviews were conducted to build a profile of the budget ecotourist (Appendix 4). An analysis of the interview data revealed that budget ecotourists range in age from 25 to 35, and are professionals or students. These tourists travel either to take a break from a job or from school. They spend an average of 75 days in South America, 42 in Ecuador, five in Napo and three days on a jungle trip if one is taken. Travel in Latin America is divided among several countries, and is planned so that as much as possible is viewed in a short time. An average total of $70 US is spent by a budget ecotourist in Napo. The majority of this money goes towards the cost of a jungle trip, the rest is spent on hotel and food before and after the jungle trip. Very few unessential items such as handicrafts are purchased.

Spatial Patterns

The main transport into Napo is by bus from Quito to one of the frontier towns, normally Pto. Misahualli. For the return trip to the highlands, tourists use a different route from the one taken to get there. Alternate routes enable tourists to view more of the rainforest and to avoid repeating a portion of their trip. Travel to Napo occurs on either the south or north roads into Napo.

Once east of the Andes, the budget tourists generally head for the small town of Pto. Misahualli, which is advocated by most travel books as the easiest way to obtain a jungle trip (Rachowiecki 1989, Brooks 1989). The budget tourists travel in the hinterland of Pto. Misahualli (Figure 4) for short jungle trips of two to four days, and to the other frontier towns of Coca and Lago Agrio for longer trips over six days. The trips taken from the two latter towns normally extend further into the jungle than the trips offered from Pto. Misahualli (Figure 2). From Lago Agrio, for example, people travel to the Cuyabeno Wildlife Reserve, and from Coca tourists travel to numerous small oxbow lakes located near the Napo River, and down river from Coca to the Limoncocha Biological Reserve and Yasuni National Park (Figure 2).

The constraints to spatial patterns of budget ecotourism in Napo are due primarily to Napo's inaccessibility and the unpredictable road and river conditions during the rainy season.

Duration of Visit

The length of time spent by budget ecotourists in Napo compared with other locations in Ecuador or South America is relatively small. The reasons for such short stays range from financial and time constraints to the unwillingness of tourists to do the longer jungle trips, which at $15 to $25 US per day , cost more than the $10 US per day that the average tourist is willing to pay. The longer trips are more expensive because they require more boat transportation, higher fuel costs, and more hired helpers to set up camps as there is not a built infrastructure. A longer jungle trip also requires five to eight people to pay for the extra costs in transportation, but, since it is often not possible to find a group of people, trips of this size and length are less common. The rainforest ecotourism of Napo competes with other types of tourism and tourist attractions in Ecuador.

Obtaining A Jungle Tour

Obtaining a jungle trip in Napo normally follows one of two patterns. The most common pattern involves travelling directly to Pto. Misahualli and arranging a tour with a group and a guide. The second pattern involves arranging a tour, either in Quito or in Baños, before travelling to Napo. Both travel arrangements lead to similar tours in the rainforest. The tourists who arrange a trip outside Napo pay $5 US more per day, but have the security of knowing that they will be able to get into the jungle immediately; otherwise, the tourist must often wait for several days in Pto. Misahualli for a trip to be organized. Ecotourists arrive in Pto. Misahualli by themselves or in pairs and must have a set idea of the time they can spend and what they want before they start searching for a tour. They normally have to gather in groups of four or five people to get a guide. The guides charge competitive prices from a low of $15 US to a high of $25 US. During low tourist season, it can be several days before people can organize a large group, whereas in high-season, it might be only several hours on the day of departure. The tourists talk to many tour operators and eventually settle either on the tour that sounds the most interesting or the one that offers the most for their money. In general, those who

travel directly to Pto. Misahualli have more variety of tours to choose from than those who arrange a trip outside Napo. As well, these tourists have a greater number of guides to choose from and may be able to verify the guide's qualifications.

Groups are usually comprised of individuals who have a common interest in what they want from a jungle tour. Conflicts, however, do arise from personality clashes or because the group has differing trip expectations. During the low season it is difficult to find an adequate number of people to make a trip.

There is also a certain amount of risk to ecotourists taking a jungle trip. During my research on ecotourism I heard many stories about poor guides and "rip-off artists". I also participated in one jungle trip where the guide had no intention of delivering the trip as promised. During further discussions with the guide association executive, I discovered that the guide had been banned from guiding by the association and had incurred many debts to boat and hotel operators in Napo. There are a few instances where a guide and his or her group of tourists became lost in the woods and the guide panicked. One tourist related a story of a guide forcing a missionary at gunpoint to fly him and his group back to "civilization" (Ann 1989). Some tourists prefer to bypass jungle ecotourism because of the risks involved.

Economic Impact

The greatest spatial impact of budget ecotourism occurs in a distinct ecotourism region around Pto. Misahualli and its hinterland, and a more dispersed impact occurs in isolated areas east of Lago Agrio and Coca (Figure 3). The infrastructure present in Pto. Misahualli was built to coincide with the needs of the budget ecotourists for inexpensive trips, hotels, and food. The hinterland area of Pto. Misahualli has been developed for ecotourism; tourist trails and camps have been built to cater to budget ecotourist requirements. In isolated and distant areas the budget ecotourists are not integral to the economy of the area.

Because budget ecotourists travel independently they have an impact on different sectors of the economy such as the hospitality, commercial, and transportation sectors, and the construction industry. The hospitality sector includes hotels, restaurants, and river tour companies. The commercial sector encompasses small commercial establishments such as the dry foods stores, food markets, bakeries, hardware stores, and clothing stores. These two sectors are integrally linked. For example, budget tourists stay at the local hotels and eat at local restaurants before and after their jungle trips. The budget ecotourist's jungle trips are organized on very short notice necessitating the purchase of all food and other supplies at local commercial establishments by the river tour operators. The budget tourists normally use two of the transportation systems, river and road. Many boats are privately hired out to tourists travelling to Coca and to tourists who do not want a jungle trip, as well as to river tour guides. The public ground transportation system is most commonly used by budget ecotourists because of its inexpensive fares and its regular and frequent service. The construction industry has been increased as a result of the need for the budget tourist infrastructure of hotels, restaurants, and tourist camps. The infrastructure is small-scale and much of it was built using local labour and materials, which include a variety of trees from the rainforest.

5.2.2 Resort Ecotourists

The resort ecotourists are defined as tourists who pay a high price for comfort and organization for an exotic jungle tour. The high price also pays for a knowledgeable jungle guide who will convey information about the rainforest in a concise and comprehensive manner. In Napo, there are seven resorts built specifically for this type of tourist.

Tourist Profile

The resort ecotourists normally follow a strict itinerary in and out of the jungle; therefore, it was difficult to interview them. Their tourist profile, therefore, is based on interviews with the people

who organized their jungle experience, for example, the tour operators and guides. The profile for these tourists is not as detailed as for the budget ecotourists. Six of the seven resorts in Napo were contacted for interview purposes. These interviews revealed that resort ecotourists generally prefer a well-organized itinerary with a recognized resort for jungle trips. Resort ecotourists spend between $110 and $600 US for a trip of three nights and four days (Aliñahui pers. comm. 1989, Flotel Orellana pers. comm. 1989). This price range is indicative of the possible alternatives that are available for the resort ecotourists. The travel time in and out of Napo is included in the travel package. They are not likely to stay longer than the time proposed in the package by the tour operator. One of the main reasons for this is that, on average, resort ecotourists spend only two to three weeks in Ecuador and South America; therefore, they do not have the leeway to add extra time to their jungle trip. Furthermore, since they do not travel independently they have a fixed itinerary.

Obtaining a Jungle Tour

The resort ecotourists in Quito are recommended a specific tour by the hotels at which they are staying, or they organize the trip before leaving their countries. Many of the tourists combine a jungle trip with a trip to the Galapagos Islands. Most of the travel agencies in Quito are able to offer a choice of resorts to the tourists and can book reservations. In this way, the tourist can make an educated choice of a tour. The resort ecotourists, therefore, always reserve a trip before departing to Napo. The tourists pay for the security of having the entire trip organized in advance. Resorts are notified by telegram or radio by the booking office of the guests to expect. Reservations for high season have to be made several months in advance, and for low season, several weeks in advance.

The tour companies that use air transport to travel have a problem booking air flights for large numbers of people because most seats are booked by the oil industry. Confusion results because of the lack of reliable communication between the booking offices in Quito and the resorts. The only way to communicate is by telegram or short-wave radio. Most of the resorts have space for a limited number of people and are completely booked for the high tourist season, June to August.

Duration of Tour

The average stay of a resort tourist in Napo is three or four nights. The tour package includes travel time in and out of the region. Two resorts near Coca, La Selva and Flotel Orellana, are run on a one-week schedule; the tours are either three or four nights, and the schedules cannot be altered. The transportation costs for motorized canoes and travel is high and resorts reduce costs by limiting tours. At the resorts near Pto. Misahualli, the majority of people stay for three or four nights, but there is more flexibility if tourists want to stay an extra day or leave early. An exception to this duration of tour is the Cuyabeno Wildlife Reserve. Because the Reserve is quite isolated, a minimum of six days is needed to view its lakes.

Spatial Pattern

The resort ecotourists are generally concentrated along the Napo River around Pto. Misahualli and Coca, but another place that these tourists will pay up to $100 US a day to see is the Cuyabeno Nature Reserve located north east of Lago Agrio.

Tourists use several major routes to get into the jungle. The south road through Puyo is normally taken to get to Pto. Misahualli. The return ground trip is along the north road through Baeza to Quito. Travel to Coca is normally by plane from Quito; however, if the plane to Coca is completely booked, tourists fly to Lago Agrio, then take a private bus to Coca. Upon arrival in Coca, tourists proceed by boat to the various resorts, and the same route is followed on the return to Quito.

Economic Impact

Although jobs are available to the local people from the resort ecotourism industry, its operation is normally controlled from Quito; therefore, the majority of the people working in this industry are hired from Quito. Initially, during the construction of the resorts, local people may be employed as builders and consultants for local architecture, but after the resorts are built, there are few benefits

to the local people except in small-scale employment. Local people are hired as guides or cooks at some of the resorts, but most managers are imported from Quito. The resort ecotourists affect only the resorts, they do have a limited impact in the development of the local economy. For example, La Selva supports the local school as its part of the agreement that allowed its establishment in the area. However, few resort ecotourists travel independently, they have little individual impact on the local economy. For example, since only private transportation is used, resort ecotourists are not likely to hire boats independently or buy small items or handicrafts in Napo towns. There is, however, an arrangement at some of the resorts to buy indigenous handicrafts.

The agriculture sector of the rainforest does not benefit from resorts except from the fruits and vegetables it sells there. Most food is imported from Quito to provide western-style food for the tourists.

5.3 Comparison of the two tourist types

One of the main reasons for researching these two types of ecotourists in Napo was to determine which one of the groups has a greater impact on the local economy; that is, to determine which type brings more money into the region. An analysis of the two tourist types reveals both commonalities and differences between them.

Tourist Profile

The main difference between the budget ecotourist and the resort ecotourist is the amount of money per day that they are willing to spend. The budget ecotourist spends much less per day ($15 to 25 US) than the resort ecotourist ($35 to $100 US). The mean duration of the time in Napo for the

budget ecotourist is one day more than for the resort ecotourist. The resort ecotourist spends only two to three weeks in Ecuador compared with the average budget ecotourist, who spends six weeks.

Organization of a Jungle Trip

The budget ecotourists normally organize themselves from Pto. Misahualli. From there they decide on the number of people, where they will go, and the duration of the trip. The resort ecotourists have others organize their trips for them after choosing a tour operator in Quito. They leave the itinerary of the trip up to the operator: their companions, destination, and route are chosen for them.

Length of Time in Napo

Although the length of the jungle tour in Napo is about the same for both tourist types, the definition of the trip is slightly different; for example, the three night/four day trip for resort ecotourists includes travel time to Napo, they spend three nights but only two days in the jungle. Budget ecotourists, on the other hand, obtain the trip while in Napo, therefore spending four full days and three nights in the jungle.

Spatial Patterns

Budget ecotourists, although having similar travel patterns in the area, have vastly different ones leaving the area. They can choose alternative transportation, whereas resort ecotourists are restricted to entering and leaving the jungle with the organized tour. While budget ecotourists rely on the local transportation system, the resort ecotourists normally travel in the chartered or private transportation of the tour company.

The budget ecotourists travel to most areas in Napo. Because their schedules are more flexible they can travel to isolated rivers and can spend seven to ten days in the jungle. On the longer jungle

trips, tourists are less concentrated, they may be the only group of people travelling in an area, whereas on shorter trips, tourists are isolated to the hinterland of Pto. Misahualli. Because there are numerous tourist camps in this area there is a high density of tourists; however, even on this type of trip the tourists travel each day to a new camp, and rarely come into contact with other tourists, who are spatially dispersed in the hinterland.

Both tourist types are mainly concentrated on the Napo river between Pto. Misahualli and Garzacocha (Figure 2). Resort ecotourists stay in the same accommodation each night, but the budget ecotourists hike or boat to a new camp throughout their jungle trip. The budget tourists, therefore, travel deeper into the jungle and spread out more. There are rigorous rafting tours on the more isolated and distant rivers.

Further down the Napo River, the resort tourists remain isolated in the resort locations, while the budget ecotourists set up camps, travel for several days down river to Nuevo Rocafuerte and to the Yasuni National Park.

Budget ecotourists are much more spontaneous than resort ecotourists. They lack the restrictions placed on resort ecotourists of having to pre-book several weeks in advance. They travel to Pto. Misahualli directly to book their travel. Budget ecotourists have more control and flexibility over their jungle experience. They can choose to spend part of their trip exploring with a guide and the other part exploring without a guide. Resort ecotourists cannot vary their jungle trips from the organized route.

Economic Impacts

It was hypothesized that the budget tourism in the Napo of Ecuador is more likely to be beneficial to the local economy because it has a larger spatial network, it covers a greater distance, and has more alternatives than resort tourism, whereas the resort ecotourists are much more spatially concentrated and their movements are controlled by tour operators.

It appears that the budget ecotourists were more important for stimulating the local economy

than the resort ecotourists. The local people have much more control over the budget ecotourist industry than they do with the resort ecotourist industry. There are very few people employed in the budget ecotourism industry who do not live within Napo.

The budget ecotourists are more spatially dispersed than the resort ecotourists. The resort ecotourists are spatially concentrated on resorts, because of their needs for a luxurious accommodation, running water and foreign goods, which must be imported directly to the resort, the infrastructure built for the resort ecotourist takes up more space and results in a greater disturbance to the area immediately surrounding the establishment. However, on tours of the jungle, both tourist types disrupt the environment equally.

Finally, although the resort ecotourists are less beneficial to the local people, they do provide income to some of the locals and, in the initial construction phase, the resorts do provide employment. The two types of tourists in Napo require different services for their satisfaction; therefore, both types of infrastructure are needed. The resorts, although having a larger environmental impact because of space requirements (a large, built environment and a high concentration of people, 30 to 60 per resort compared with five to ten per camp on average for budget ecotourists), they have more government restrictions on septic systems and types of infrastructure built and the resort is normally inspected.

The infrastructure created for the budget ecotourists is necessarily small. This means that the local people are involved in building the infrastructure, most construction materials are local, the camping river tours that are offered need immediate planning, tourists normally leave either the same day that a trip is planned or on the following morning if the trip is organized at night. This spontaneity also requires that the guide purchase all food and any other items from local stores. The guides all live in the area and hire local people as assistants. Boats and boat operators are hired from the port at Pto. Misahualli. Ecotourists stay at one of the local hotels and eat at local restaurants in Pto. Misahualli before leaving on a jungle trip and when returning from a one. Budget ecotourists also use public transport when travelling into the region or when leaving.

In contrast, the resort tourist travels by company or private transportation, and stays only at a resort that imports most of its food from Quito. Boats are all owned and run by the resort staff. All sectoral impacts are spatialiy confined to the places to which the resort ecotourists are guided.

CHAPTER 6: CASE STUDY OF PTO. MISAHUALLI AND ITS TOURIST HINTERLAND

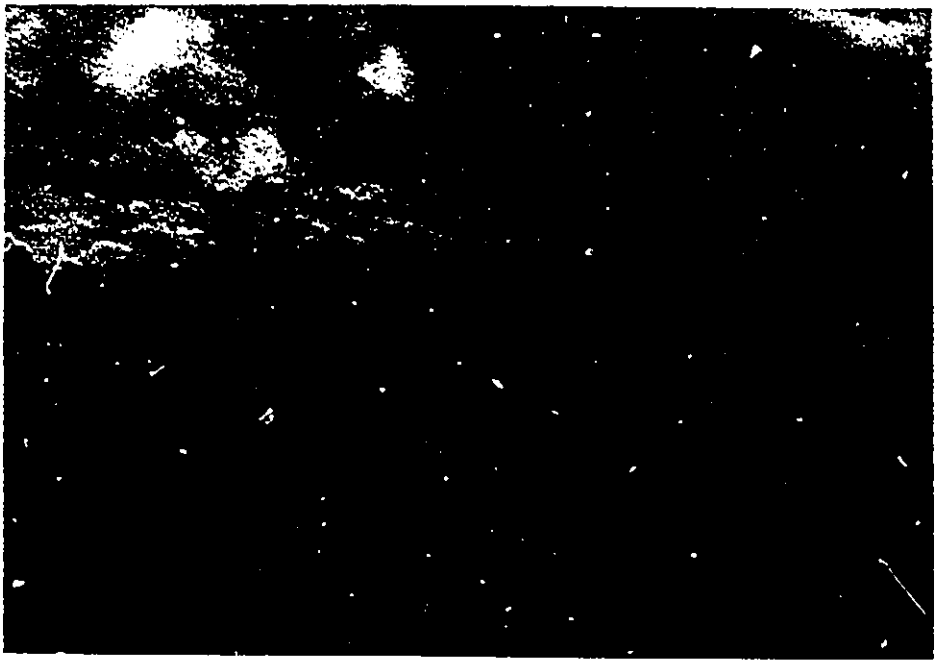


Photo 6: The tourist town of Pto. Misahualli

6.1 Introduction

Pto. Misahualli and its hinterland is the most important tourism area in Napo. It represents a microcosm of the patterns previously discussed at a regional scale. The objective of this chapter is to illustrate general patterns at the local scale, with particular emphasis on the interaction between tourism resources and tourist movements, through a case study. Pto. Misahualli is well known to budget ecotourists. Rachowiecki (1989), a travel writer, describes it as "... the best place in Ecuador, indeed, one of the best places on the continent to see some of the jungle conveniently and cheaply.

You can easily get there by bus from Quito in a day, so it is suitable for the traveller with a limited amount of time as well as money"(p.170). Furthermore Pto. Misahualli has a unique concentration of tourist infrastructure, guides and other attractions. A wide variety of tours into its hinterland can be procured, ranging from one to ten days. The hinterland surrounding Pto. Misahualli receives the majority of tourists who use Pto. Misahualli as a staging centre.

Research was carried out for approximately six weeks between August and December of 1989 in Pto. Misahualli and its hinterland area. The information presented in this chapter is the result of observations and interviews, unless otherwise stated. In this chapter the context is set with a description of the evolution of the tourist system. Then the tourist infrastructure, including the hospitality and the river tour companies, is discussed. Next the regional importance of Pto. Misahualli and the tourist hinterland, with respect to the local economy and ecotourists, is considered.

6.2 Pto. Misahualli

Pto. Misahualli is strategically located where the Napo River leaves the pre-Andean zone, enters the lowlands, and becomes navigable without obstacles. It is the main port of the Napo River and is the closest port to the highlands. The Napo River and its tributaries are the main tourist area in the Ecuadorian rainforest with the Pto. Misahualli area being the most important. The hinterland stretches to tourist camps located along tributary rivers and down the Napo River to Hotel Jaguar (Figure 4), the furthest resort accessed through Pto. Misahualli (about 1 hour by boat).

A 45-minute drive from Tena, the capital of the province, Pto. Misahualli was formed in 1969, and was categorized as a parish. Originally, Pto. Napo, located where the main road between Puyo and Tena meets the Napo river, was the main port used for the Napo River. Transportation to Pto. Misahualli was by foot, horse, or boat (Gutierrez, 1987). In 1977, a road to the town was built, which avoided the rapids located in the river between Pto. Napo and Pto. Misahualli. The parish of

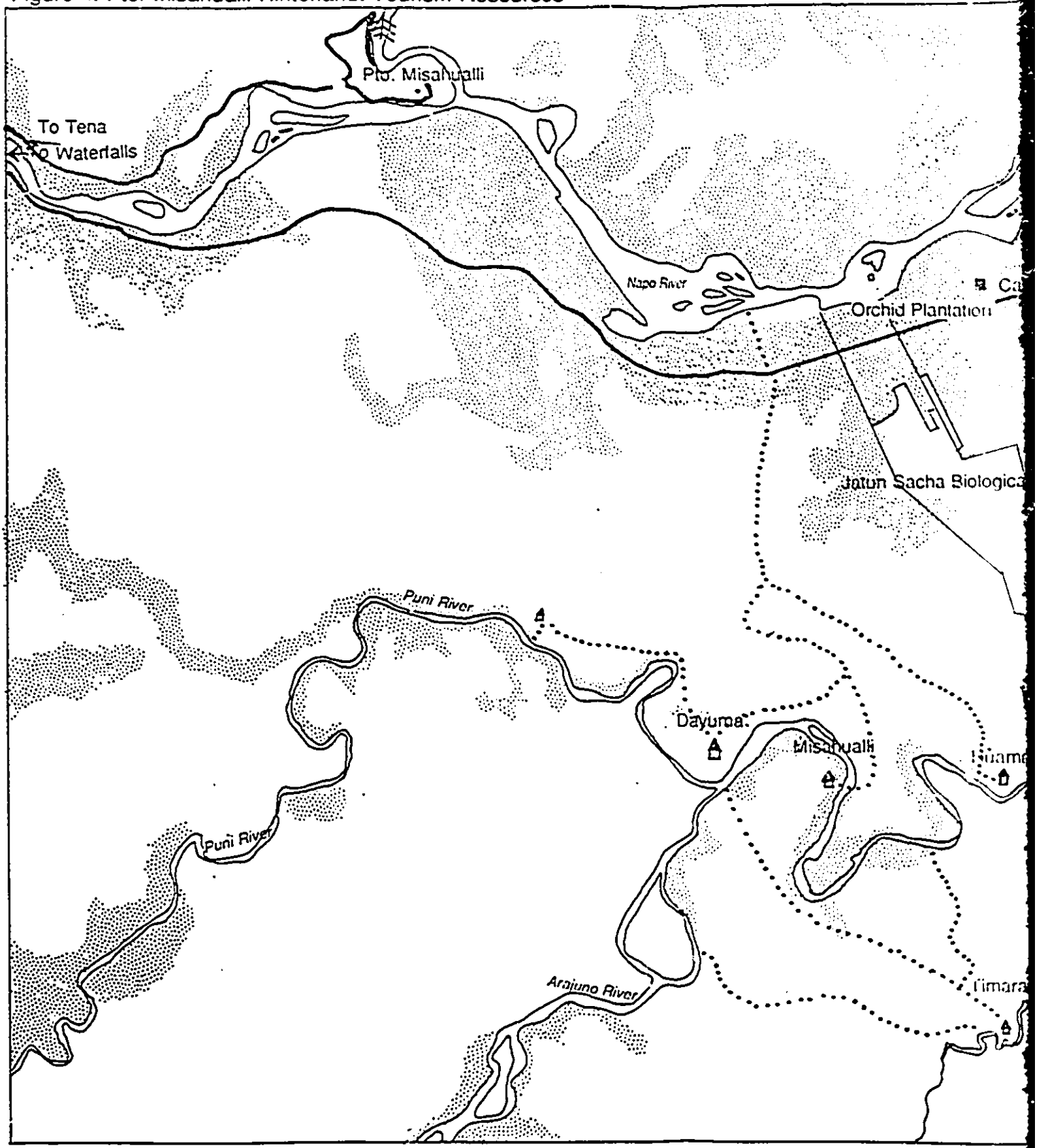
Pto. Misahualli has a population of 2 350, of which 80% are rural and 20% are concentrated in the town of Pto. Misahualli.

Pto. Misahualli is reminiscent of a frontier town found in the wild west of North America. The buildings are not well constructed and they are all in a state of construction or reconstruction. Apart from the main square and surrounding blocks there is very little more to the town (Figure 5).

Local Importance of Pto. Misahualli

Although Pto. Misahualli is a tourist town, residents also live off agriculture and commerce. Pto. Misahualli is important to local colonists, both native and highland migrants, for the trading and selling of goods such as corn, cattle, coffee, cocoa, yuca, and bananas. It is used as a gathering place for celebrations such as the town's birthday and Ecuador's independence day. Pto. Misahualli offers a significant number of services, commercial activities, and recreational facilities (Table 6.1).

Figure 4. Pto. Misahualli Hinterland: Tourism Resources



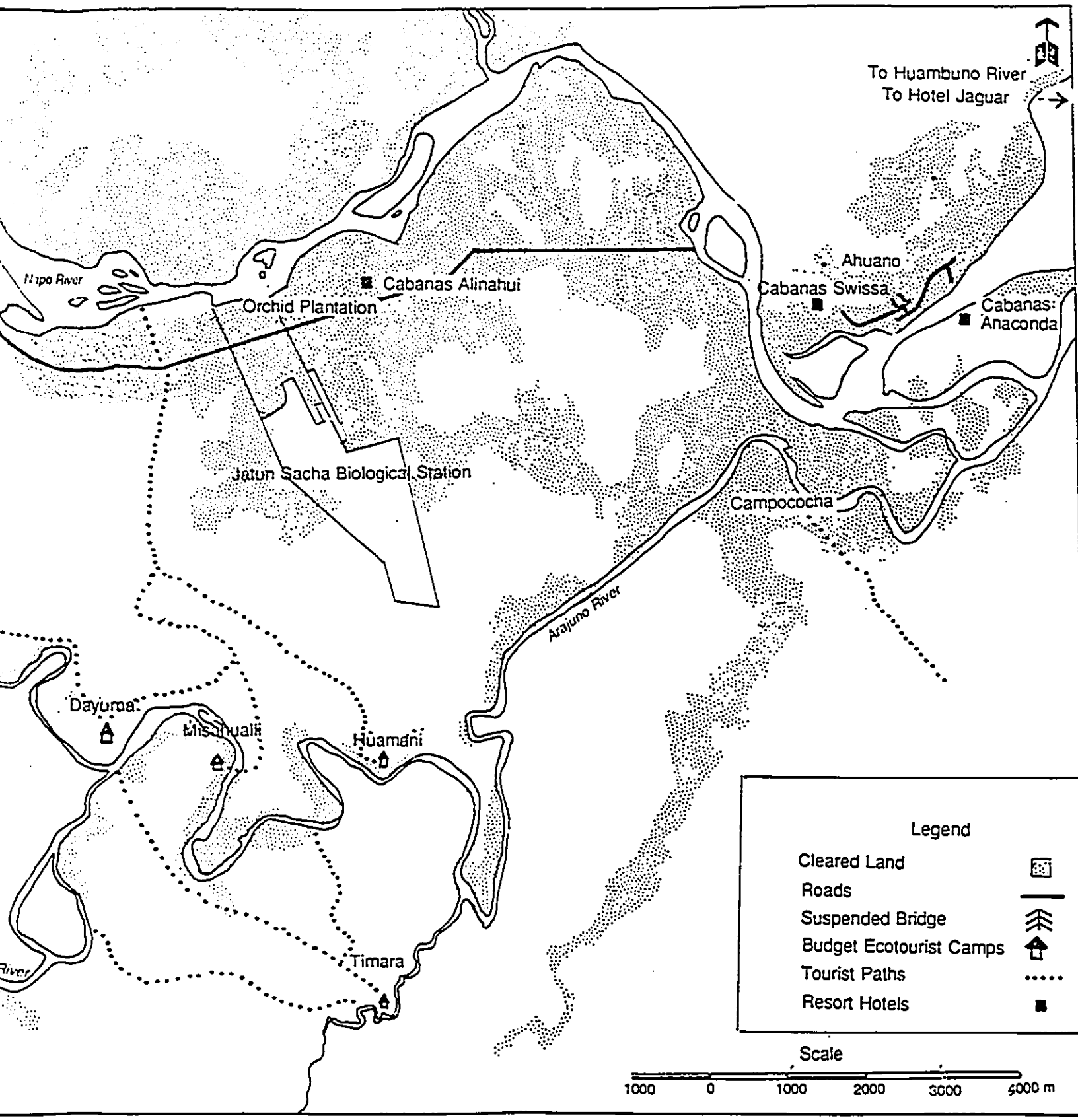

To Huambuno River
To Hotel Jaguar
Napo River
Cabanas Alinahui
Orchid Plantation
Ahuano
Cabanas Swissa
Cabanas Anaconda
Jatun Sacha Biological Station
Campococha
Arajuno River
Dayuma
Huamani
Timara
Legend
Cleared Land
Roads
Suspended Bridge
Budget Ecotourist Camps
Tourist Paths
Resort Hotels
Scale
1000 0 1000 2000 3000 4000 m

Table 6.1 Pto. Misahualli services, commercial establishments and recreational facilities

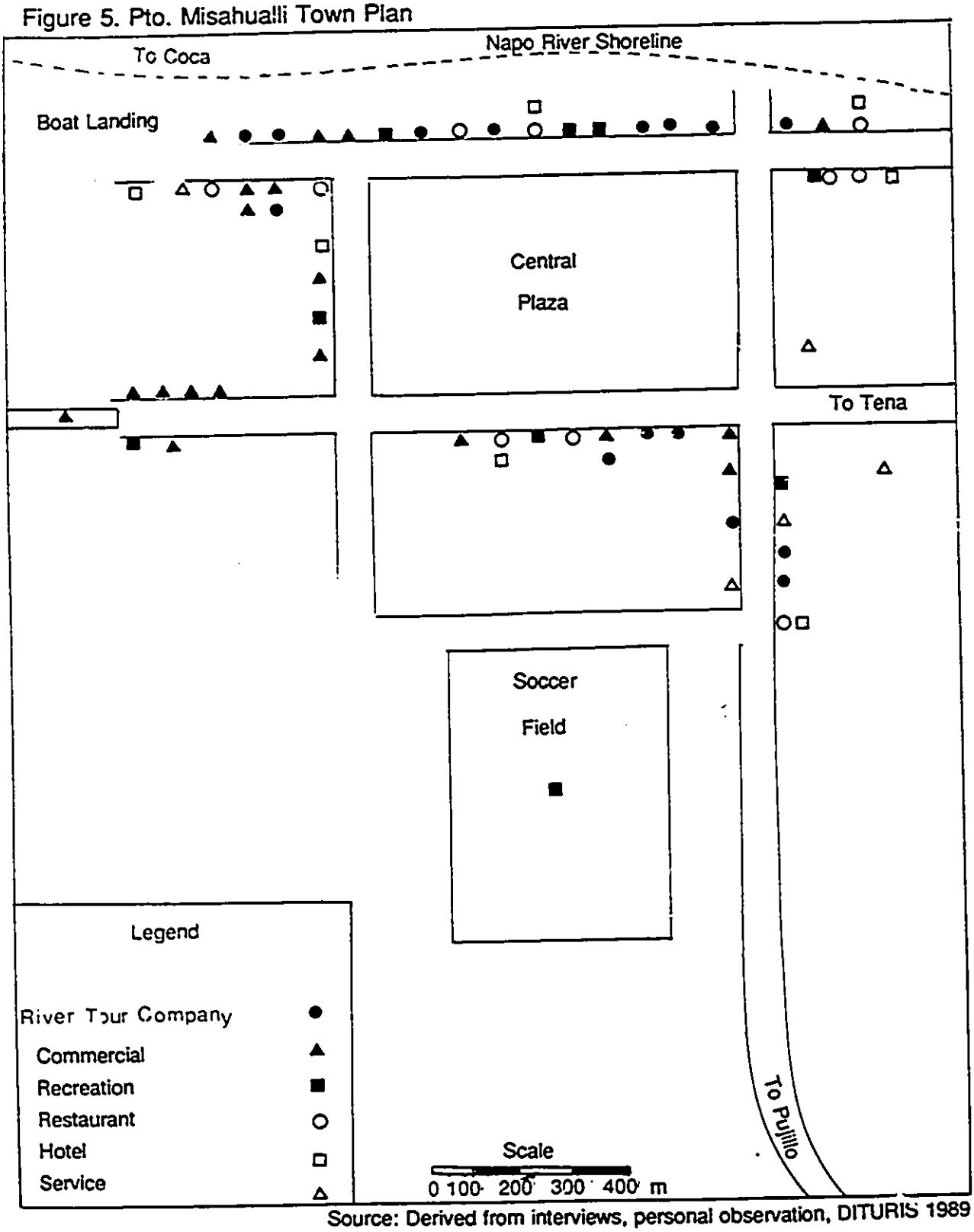
Services	Commercial establishments	Recreation
1 doctor	5 grocery stores	3 bars/discos
1 church	2 bakeries	3 pool halls
1 public school	4 mixed dry goods stores	1 cinema
1 phone	2 seamstresses	1 soccer field
1 police/jail	1 coffee warehouse	1 beach
1 port controller	2-5 gold purchasing establishments	
1 military lookout	2 handicraft stores	
	1 pharmacy	
	1 Sunday market	
	8 hotels	
	12 river-tour companies	
	15 restaurants	

6.3 Pto. Misahualli Tourist Infrastructure

Pto. Misahualli's tourist infrastructure is intimately linked with the hinterland. It consists of hotels, restaurants, river tour companies, tourist camps, trails,and resorts. Pto. Misahualli provides simple services for tourists. There are eight hotels located in the town with a 150-bed capacity. The hotels are basic. Hotel rooms are normally located on the second floor of a building, they do not have fans,or windows to the outside, although most have windows facing the hallway of the hotel. A few of the hotels have rooms with private washrooms; however, the majority have communal facilities. The prices range from $1 US to $2 US per night. Most local entrepreneurs plan to build better-quality hotels with private baths; however, these enterprises have not yet been realized.

The restaurant infrastructure is limited in Pto. Misahualli. The majority of the hotels have restaurants incorporated in them. The clients in the restaurants are generally people staying in the hotel. Two restaurants catering to the needs of tourists have specialized in vegetarian food. The vegetarian meals tend to be a combination of potato, beans, and a salad presented in a quasi-western

Figure 5. Pto. Misahualli Town Plan



Source: Derived from interviews, personal observation, DITURIS 1989

style. One restaurant serving vegetarian food has a decor similar to a Canadian picnic site in a provincial park. It consists of six picnic tables enclosed in a screened, high-ceilinged building. The other restaurants serve Ecuadorian food. There are several small eating stalls that cater primarily to locals.

Pto. Misahualli has many commercial establishments consisting of general stores that sell hardware and food, clothing stores, and food markets. These establishments are essential to local Pto. Misahualli residents and colonists; however, they also cater to tourists and the river tour companies. They supply the latter two groups with all necessary food and supplies for jungle trips.

There is an inconsistent water supply in Pto. Misahualli. Either the water pipe is plugged or the water reserve is dry. Water supplies fluctuate throughout the day. There are frequent black outs and electricity stops at midnight. Four hotels have a generator as an alternative energy source.

River Tour Companies (Cruceros Fluviales)

Tour operators have been providing a vital service to ecotourists in Pto. Misahualli for approximately 15 years. In 1986, the tour operators were asked to register themselves as river tour companies, which has ensured greater protection and control for guides and tourists. These companies consist of several guides, a cook, and a boat operator. Each of the 12 river tour companies has an office either on the main square in Pto. Misahualli or on one of the side streets, easily visible by ecotourists (Appendix 3). Five of these river tour companies are family-based. In one company, for example, the parents are involved with running a hotel in the town of Pto. Misahualli and their children over the age of 20 are responsible for guiding jungle tours. Approximately half the guides have a tourist route and permanent camps set up in the immediate hinterland of Pto. Misahualli. The other guides bring tents and camp along river shores.

Four of the companies receive bookings by travel agents from outside the region or in foreign

countries. These river tour companies are Timara, Dayuma, Bonanza, and Caiman Safaries. In these four companies the guides have an excellent reputation for their guiding skills and knowledge of the rainforest and many of them speak other languages besides Spanish such as English and German, thus facilitating the jungle experience for non Spanish-speaking individuals.

The river tour company guides come from all three regions of mainland Ecuador, the coast, Amazon (colonists) and the Highlands. Although there are no indigenous guides that have formed river tour companies there are several who guide for different companies.

The majority of guides in Pto. Misahualli are part of the guides association and/or are associated with a river tour company. Each river tour company requires that all tourists participating on a tour sign a contract that states the trip specifications, duration, cost, and the name of the guide who will lead the trip. This contract is given to the port captain before trip departure. This formality is intended to protect tourists and ensures that they get the trip they agreed upon. It also ensures that guides receive payment.

Guides Association

About 30 guides are members of the Guides Association, which is part of the National Federation of Guides controlled by CETUR. There are certain criteria that guides have to meet before they can obtain a CETUR card; for example, they have to be apprenticed under a recognized guide for two years, they must have an identification card, a navigation pass, a certificate to vote in the region, six passport photos, a clear police record, a medical certificate, a letter asking to be part of the association, two letters of reference from reputable people, and a résumé. A license for the first year is probationary, after this time a board of directors decides whether a permanent license will be given.

Most guides find the association useful, but others say that the price of membership is too high for the services rendered. With the increased organization of guides at the national level, tourists are aware that services may be better with a certified guide, they are therefore demanding that their guide be a member of the Guide Association. Not all guides working out of Pto. Misahualli, however, are

members of the Guides Association and, at the moment, there is no law against unregistered guides taking ecotourists on trips.

6.4 Pto. Misahualli Tourist Hinterland

Introduction

The hinterland of Pto. Misahualli (Figure 4) can be delimited as the area that contains the resorts and the tourist camps and trails that are used by the tourists and guides and are within one hour of Pto. Misahualli by boat, the Huambuno River is located downstream from Ahuano and is not located on the map because of space constraints.

Tourist camps

Tourist camps have been built to increase the comfort of budget ecotourists during the arduous hiking trips in the rainforest. The camps are constructed in areas that are easily accessible by both water and land. The land on which they have been built is normally leased from the local indigenous owner, and, after a period of time, the guides can renew the lease or they can return the camp and land to the original owner and pay a rental fee to this owner for each time the camp is needed for a guided tour. These camps are normally constructed using local materials and architecture. Leaves or branches of palm species are used for thatching roofs, the wood for framing is obtained from local trees, and a special type of weather proof bark is used for the flooring. Indigenous people are hired to build the camp infrastructure.

There are seven camps located in the hinterland. These are used by the Huamani, Timara, Cononaco, Fluvial, Caiman, Dayuma, and Misahualli river tour companies. A typical camp consists of at least three buildings, one each for sleeping, eating, and recreation. Most camps can support between ten and twenty people. The only camp that supports up to 65 people is Dayuma. This camp has tours organized from Quito as well as locally organized tours.

Budget ecotourist tours

The tours offered by river tour company for budget ecotourists vary in length, degree of comfort, and location. The length ranges from one to ten days with the average length between two and four days. The two major locations for short tours are on the Arajuno and Huambuno rivers. The longer trips normally occur further down the Napo river past Coca or on the Nushino river for balsa raft trips. Five river tour companies own or rent camps in the Arajuno River region: Misahualli, Fluvial, Dayuma, Timara, and Huamani. Near the Huambuno River a further five river tour companies share two tourist camps in the area: Aventuras Amazonicas, Caiman Safaris, Cononaco, Odesia, and Primavera (Photo 7). These latter river tour companies guide a lesser volume of tourists. They are not as well known and have not been in operation as long. Three other river tour companies prefer to build their own camps or use tents. These are Fronteras, Bonanza, and Etsa. In the Arajuno River area, where there is a high volume of tourists, the guides have agreements to start at different times so that tourist groups do not meet each other.

Although it appears initially that the budget ecotourism industry is a long-term sustainable industry, locals forecast the tourist town and hinterland of Pto. Misahualli will deteriorate in quality because a road has been built through the hinterland. There is increased logging and degradation of the ecology of the region because of this road. The tourist trail system near Ahuano has been subject to a considerable amount of colonization and logging. The road has facilitated the transportation of logs and forest exploitation in the region. As a result, there are now vistas of cultivated land and fallen logs on the jungle paths that were formerly surrounded by trees and chain saws can frequently be heard in the distance.

The road has been useful to local indigenous residents and, as they do not participate in the tourism economy, they refuse to comply with the guides' wishes that the paths and areas around the jungle paths be left undisturbed.

Ecotourists have started to complain about hearing the chain saws and gunshots during jungle trips. However, since a jungle trip from Pto. Misahualli is still one of the easiest and quickest ways to see the rainforest, tourists continue to travel to the area.

Photo 7: A typical budget tourist camp located on the Huambuno River.

Resort Infrastructure

The resorts are luxurious establishments located along the Napo river. These have been built to accommodate tourists who prefer comfortable lodgings, security, and organization. There are four tourist resorts within a two hour boat ride from Pto. Misahualli. Three of the resorts are isolated from the small settlements located in the region and they are normally set in a clearing with the primary rainforest easily accessible. The resorts are accessible by boat and have a river view. For three of the hinterland resorts, tourists are required to pre-book in Quito. Tours are completely organized in Quito and tourists are normally guided from Quito to the rainforest resorts and back to Quito without any side trips.

The two oldest resorts, Hotel Jaguar and Cabañas Anaconda, were built to accommodate both national and foreign tourists in relative comfort. The most recent resorts were constructed to provide an alternative to the other resorts, which were somewhat out-dated. Hotel Jaguar, built in the late 1960s, is the oldest tourist resort on the Napo River. The architecture is modern, with large windows and constructed from white-washed concrete. The interior is decorated with paintings by Guayasamin, one of Ecuador's most well-known painters. It is located some distance from Pto. Misahualli; its isolated location offers a more exotic rainforest experience. Hotel Anaconda is the second oldest resort and was built after the style of the local indigenous architecture. Care was taken to imitate the indigenous way of life as closely as possible to provide tourists with an authentic jungle experience. Cabañas Swissa (Photo 8) is located in the small native village of Ahuano and is a combination of a resort and a hotel. Tourists can arrive individually or in groups. Guides will stop to allow tourists to see the zoo and eat at the excellent restaurant. The architecture follows the style of the owner's native Switzerland with a peaked roof and many balconies. As it is one of the newest hotels, it does not yet have a large clientele and reservations are not needed to stay at this establishment. The owner will arrange a day jungle trip for his clientele at $10 US per day per person.

Photo 8: Cabañas Swissa.

Cabañas Aliñahui is accessible by car and is built on land that was once a cattle ranch. This is the most modern resort, with solar panelling and a unique style of housing suitable for the tropical area. It consists of six bungalows, of which the smaller ones are for sleeping accommodation and the larger ones are common areas for relaxing and eating facilities (Photo 9).

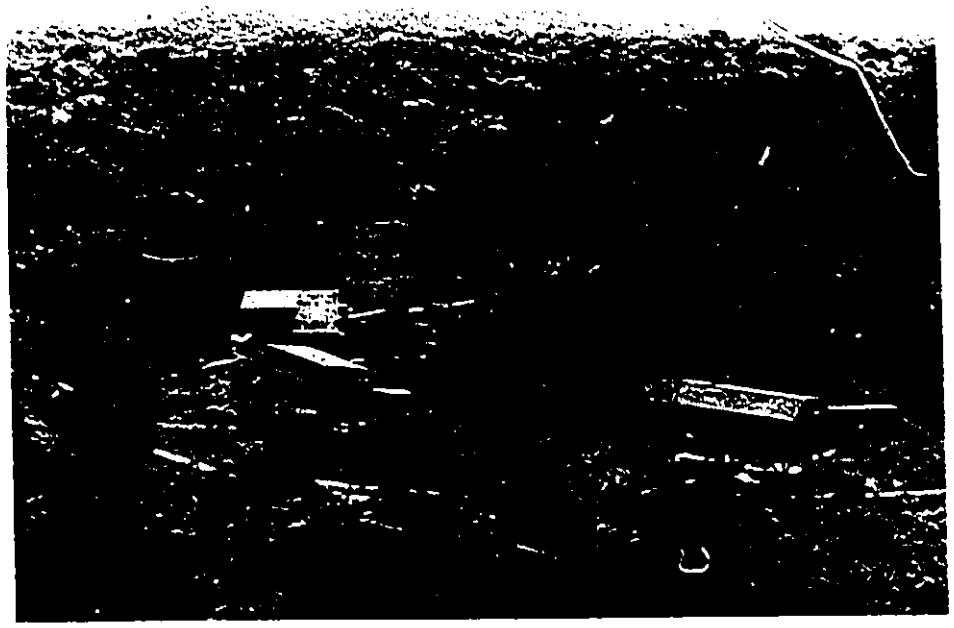


Photo 9: Cabañas Aliñahui (Photo courtesy of the Shenkle family).

Resort Ecotourist Tours

The tours or packages offered by the resort hotels are normally three or four nights in length but can range from two to six nights. The travel time (between 5 and 8 hours) in and out of Napo is included in the package. The tourists normally stay in the same hotel for several nights in a row and then do day trips either to the local villages or to the jungle.

The guides hired for the resorts are normally fluent in several languages. Some of the principal guides are hired from outside the country; they have degrees in Biology and are well versed on the animals and plants found in the rainforest. A local guide may be hired to supplement the foreign guide's tour with local knowledge of medicinal plants and traditions.

6.5 Alternative Sights and Attractions in Pto. Misahualli and Hinterland

Although the majority of the tourists that visit the Pto. Misahualli area take a jungle trip with a guide, there are also many who take day trips by themselves to some of the local attractions; these can be done safely without a guide and are inexpensive.

The Quechua Indian village, Pujillo, is located two kilometres north of Pto. Misahualli. It is a small village where one can watch the Indians bring their products to market to sell or trade. The Indigenous people live on the north side of the Misahualli river and are required to transport their products across a 100m suspended bridge (Photo 10).

Photo 10: The suspended bridge over the Misahualli River at Pujillo

A 45-minute bus ride from Pto. Misahualli towards Pto. Napo takes tourists to a small stream that flows into the Napo river. There are numerous small trails that can be followed upstream through the jungle to waterfalls and swimming holes. It is a popular tourist route for tourists who are looking for a day of relaxation and exploration.

The biological station of Jatun Sacha is located about a one hour walk from Pto. Misahualli, after the Napo River is crossed by canoe. Jatun Sacha is set up specifically as an educational and research area. Scientists can spend several months on the premises studying the rainforest as part of an undergraduate or graduate degree program. The area covers approximately 20 hectares of land in primary rainforest. It is surrounded by a barbed-wire fence and clearly demarcated by "No Hunting" signs. There is a one kilometre trail through the area. Tourists are charged approximately $1 US per day for using the trail. It is relatively easy to access the area by foot or boat, and is important to people who are unwilling or not able to spend money on a jungle trip. The biological station is owned and run by two people, D. Neill and A. Saurez. Saurez lives approximately a half-hour walk from the station, where he has also built an orchid plantation.

Saurez's orchid plantation is located 40 minutes down river by boat from Pto. Misahualli. It is situated on a small farm that was formerly used for growing cacao trees. When a tree is felled in the forest near his farm, Saurez removes the orchids and brings them to his land and hangs them off cacao trees that are no longer productive. There are over 255 species of orchids on the trees. As well, Saurez draws very detailed illustrations for scientific publications. To promote the biological station of Jatun Sacha, he sells T-shirts depicting his drawings of the unique plants and animals in the area.

Two of the resorts, Cabañas Swissa and Cabañas Anaconda, have zoos located on their premises. These can be visited with the permission of the resort owners. At Cabañas Swissa the locals bring baby animals to the zoo owner when they have killed the mothers for food. The zoo at Cabañas Swissa is a fairly humane zoo. Animals can roam freely on the grounds and can be touched and picked up by ecotourists.

A further tourist attraction is watching the Indians pan for gold along the Napo River. Many

of the guides stop to visit the Indians and tourists can examine the apparatus used to tap this resource. The Indians make more money from panning for gold then they would by farming. Previously, the fresh fruit and vegetables that they produced would be sold to restaurant owners in Pto. Misahualli; however, with this new industry, it is more difficult for the restaurants to obtain fresh vegetables and fruit.

The most commonly made trip by boat is between Pto. Misahualli and Coca. During this six-hour trip, the tourist travels past all the tourist resorts, and past indigenous and colonist farms. Ecotourists often use this trip as alternative to taking a formal jungle tour. It is normally easy to arrange and ecotourists return to "civilization" after one day and do not have to sleep in the jungle.

6.6 Economic Benefits

The tourist industry in the area provides many opportunities for employment. Normally a family will own a restaurant and hotel, in town and a river tour company. Or the owner of a bar or disco will own a river tour company. A typical set-up is one where the mother of the family runs the hotel and restaurant and the children of the family run the river tour company. In this manner, local people can obtain not only the business of tourists but also of the local colonists when they come to town. If a particular restaurant or hotel does not have family members as guides, then they will rent a part of the ground floor to a river tour company that needs office space. Because of the seasonality of tourists it is important to most guides to have some other operation besides their guiding service to make ends meet.

Employment from Ecotourism

The river tour company hires not only guides, but also assistants such as boat operators, cooks, and sometimes assistant guides. The number of people hired depends on the type, size, and length of trips. About 90 people are involved with the tours. A further 20 people are hired for the maintenance of the tourist camps located in the hinterland area. There are approximately 30 boats and

operators available for excursions by both locals and tourists. The boats for tourists are normally more comfortable than those for locals. They contain chairs and do not leak. Within the town of Pto. Misahualli, a further 25 people are involved in the restaurant and hotel industry. Approximately 15 people run the commercial establishments in the town.

A tally of the total number of people economically active in the budget ecotourism industry in Pto. Misahualli revealed that approximately 180 people are involved in budget ecotourism, compared with approximately 40 involved in resort ecotourism.

Integration of the Local Economy with the Ecotourism Industry

Pto. Misahualli is a good base for hinterland destinations. There is the infrastructure for budget ecotourists and the river tour companies. Pto. Misahualli imports all its dry goods and vegetables that cannot be grown in the tropical climate from the highlands of Ecuador. Local farmers supply the town with fresh meat and poultry, all citrus fruits, bananas, and some vegetables such as yuca and beans. Guides buy all their tour food from local vendors in Pto. Misahualli and they can sometimes buy food from local indigenous people at the camps.

The resort tourists also use Pto. Misahualli as a base for hinterland destinations, but because they need a larger quantity of supplies, operators normally purchase their food from Tena or Quito. They will, however, buy fruit and vegetables from local Indians.

Local Versus External Control of the Tourist Industry

The majority of resorts and budget hotels are nationally-owned. In the hinterland surrounding Pto. Misahualli, two of the resorts are Ecuadorian-owned, one owner is Swiss and another is German. In contrast, all establishments in Pto. Misahualli are owned by local people, and people that have migrated to Napo from other parts of the country and are permanent residents in Napo. Most of these owners were formerly colonists in tha hinterland, but with increasing age and hardships for the difficult work of farming, they have moved to Pto. Misahualli.

The budget ecotourist infrastructure is controlled mainly in Pto. Misahualli by the owners and employees that live there. The resort infrastructure is operated and controlled from Quito. Most of the booking, hiring, and managing of employees, is from outside the region. An exception to this is the Cabañas Swissa whose owner lives in Napo most of the time and whose employees come mostly from the town of Ahuano.

The two youngest resorts have the most foreign influence and have more government controls such as strict rules on the septic systems and the architecture and design of the establishment.

The port controller in Pto. Misahualli keeps records of all tourists who leave the port. A fee is charged to all boats that arrive at and leave from the port.

6.7 Conclusion

In summary, Pto. Misahualli and its hinterland provides a good case study because it has a highly concentrated industry of resort and budget ecotourists. This concentration has facilitated the comparison of the two different tourist types.

The tourists have different impacts on the local economy. The budget ecotourist economy is tightly interwoven with the commercial establishments and services offered in Pto. Misahualli. This is in contrast to the resort ecotourism industry, which is more isolated and relies on two outside centres for goods and employees. The budget ecotourist industry directly affects some 180 local people who are employed as boat operators, tour guides, and hotel and restaurant owners, etc. The resort ecotourist industry hires half its employees from Quito.

Budget ecotourists, when radiating out from Pto. Misahualli, are spatially dispersed, travelling to tourist camps on guided tours or travelling to the numerous attractions that can be visited without a guide. The resort ecotourists travel directly to the resort and do not travel independently. Regardless of the tourist type in Pto. Misahualli, the same area is used for hinterland travel.

CHAPTER 7: PROSPECTS FOR ECOTOURISM IN NAPO

7.1 Introduction

Sustainable development in rainforest ecosystems is possible in several forms: agroforestry; harvesting of forest products such as rubber, nuts, and fruits; selective agriculture; and ecotourism. All of these types of development have had some success, but few have been practised on a large scale. In this chapter, ecotourism is discussed in detail to determine its sustainability in Napo.

7.2 Principles of sustainable ecotourism development

Many principles on maintaining the sustainability of ecotourism have been espoused in the literature on ecotourism. The primary principle is to keep the environment in a state that is unaffected by tourists and the infrastructure of ecotourists. The optimal environment is one in which none of the flora or fauna is disturbed, but it is difficult to see how this can be achieved since the construction of trails or the influx of tourists to an area disrupts this equilibrium. If the optimal state cannot be achieved, the second-best environment is one that has been only minimally disturbed. Tourists do have to be forewarned that there have been some disturbances in the natural area simply to lower their expectations. In many instances, tourists are content just to walk through the jungle and view the plants and insects, the viewing of large mammals or birds is not essential. The present state of the jungle can be retained only if proper management is practised by ensuring that the carrying capacity of a region is not exceeded, and that both tourists and hosts are educated about the impact of tourism on the environment and how to be responsible towards the environment to ensure that degradation is limited.

The second principle is the involvement of local people in the management and planning of ecotourism. The local expertise in using the land can be used to determine the limitations of the tourism projects and ensure indigenous control over them. It is not necessary for all indigenous people in jungle areas to appear untouched by western culture. Most tourists who visit Ecuador's jungle realize that local people have been in contact with western culture for twenty years or longer.

The third principle is to keep the development of ecotourism infrastructure small so that it fits aesthetically into the landscape, causes less pollution, and limits the number of ecotourists coming into the area.

If all of these principles are followed it is possible for ecotourism to be sustainable for many years. However, as simple as these principles may appear in theory, they are in practice much more difficult to implement and follow.

7.3 Conflicting development modes in Napo

In Napo, there are four potentially conflicting modes of development: the petroleum industry, colonization by small farmers, ecotourism, and agribusiness (palm oil plantations). As they are currently practised, these types of developments are not sustainable.

The petroleum industry is most responsible for the increased accessibility of Napo. It has developed the area by building roads, oil pipelines, air fields and the small town infrastructure. But the exploration and exploitation of oil has taken place in Napo with little regard to the sensitivity of the ecosystem. Though development is localized, its impact through spills into waterways can affect extensive river corridors. Infrastructure has been built in sensitive areas where the industry can cause extreme environmental damage. In the Cuyabeno Wildlife Reserve, exploration and exploitation of oil is currently occurring, and in Yasuni National Park, exploratory drilling has taken place. There are few environmental controls in place to limit toxic wastes from entering the fluvial system. Oil seeps into the rivers either through rusted pipes or pipeline breaks. This lack of foresight has resulted in the contamination of many rivers. The techniques used to clean up these spills are rudimentary and ineffective. Local people are hired for the clean-up, but are not given equipment or training. More often than not, spills are ignored. Toxic byproducts used for the extraction of oil are discharged into unlined holding tanks or into rivers (Kimerling et al. 1991). In theory, since the oil extraction areas are localized and regulated by government, this pollution is controllable. It is possible that there will be future improvements in the exploitation of oil.

The second-most important activity in terms of economic gain and the most important in terms of employment in Napo, is small farm colonization. Colonists have developed the areas immediately surrounding the river and road transportation networks. The farmers are responsible for the greatest amount of deforestation. Ten thousand colonists have cleared large areas on properties of 50 has (2000m by 250m). There have been no programs to curtail farm development or to educate farmers on clearing land more wisely. Farmers have to clear a percentage of their land to ensure that they can receive legal ownership of it. The ultimate goal of the farmer is to put most of the land into production. They grow crops such as corn, coffee, cacao, and bananas, and raise cattle. Farmers in the rainforest, however, do not have an easy life as there are problems with pests and diseases to their crops.

The third economic activity, and one that is the least important in terms of economic benefits and employment, is ecotourism. Ecotourism relies on a relatively untouched environment, little infrastructure, and on areas that have barely been influenced by western culture. Ecotourism is not at present compatible with the oil industry or colonization. In recent years the development of other industries has brought all three industries in contact with each other, which has led to conflict. Environmentally, ecotourism probably makes the most sensitive use of the natural resources in Napo. It needs a minimal amount of infrastructure and cleared land, uses many local skills and products, and relies on the natural environment.

Two other potentially conflicting activities in Napo are agribusiness and lumbering. The latter industry is confined to areas occupied by colonists. Colonists allow lumbering companies to remove trees from their land so they can farm more easily. Agribusiness is confined to two oil palm plantations and some fish farming. These activities have not as yet been exploited extensively.

7.4 The need for ecotourism development

The development of ecotourism can be important for the preservation and development of crucial natural environments and indigenous people, to complement the colonist agricultural economy, and to diversify the regional economy and employment.

In Ecuador, the preservation of natural environments has been recognized as important for the natural heritage of the country. This recognition is exemplified by the large number of areas that have been put into some type of protection, as national park or forest reserve. It has also been recognized, however, that preserving areas and restricting economic activity on them is detrimental to the economy of not only the nation but also of the local people who are living in these areas. The option for governments of developing countries is to open these preserved areas to other uses such as ecotourism, sustainable farming and extraction, particularly in buffer zones. Because tourism relies on a natural environment, the tourism development plan can act to preserve the most sensitive areas and develop areas that can handle the low impact of tourism developments. Sustainable activities, such as rubber tapping or harvesting of nuts, could be incorporated into the ecotourism plan.

There are many tour companies in Quito that organize tours into the jungle regions. In areas like Pto. Misahualli, ecotourism is important for the livelihood of many of the local people. However, the local hinterland is being encroached upon by the roads built along the south side of the river and by the increased farming and logging by local people who are not involved in the ecotourism industry. This suggests that only through involvement of the local population in ecotourism benefits can ecotourism resources be preserved.

Ecotourism can also be important for the preservation of the local indigenous populations and the development of their cultures. If indigenous people are involved in the early stages of the development they can control the numbers of tourists that come to the area and the development of the industry. Because of the nature of ecotourism, it can be maintained on a small scale and can be spatially isolated. Furthermore, the indigenous people are quite capable of guiding people through the jungle and working as boat operators and cooks. Their involvement with ecotourism may be an easier way for the indigenous peoples to become accustomed to development and western people since it is unlikely that these influences will go away. The local indigenous groups in Napo have long had contact with the Summer Institute of Linguistics, a missionary organization. They are continually in contact with the oil workers and with the Ecuadorian non-indigenous colonists. Although some

indigenous groups such as the Huaorani have kept away from outsiders completely. others sell their handicrafts to tourists. In the Cuyabeno Wildlife Reserve, indigenous people are hired as guards to ensure that all tourists who seek access to the reserve have a right to be there. Jobs such as boat operators and guides have been created, and some of the local people rent out space for tourists. The ecotourism potential has not been fully realized, but it is one way that indigenous people can use their knowledge of the jungle and teach others about it.

The ecotourism industry may not only be beneficial to the preservation of natural areas and indigenous populations but it may also complement the colonist agricultural economy. If attempts are made by both the farmers and the people involved in the ecotourism industry to integrate the two industries, benefits could accrue to both parties. On a small farm in Napo, for example, colonists may have up to 25 varieties of fruit on their farms. Although not all of these are economically feasible to grow on a large scale, if enough of the local farmers were involved in selling small quantities of fruit to the restaurants in Pto. Misahualli, the local town could offer the tourists a wide variety of jungle products. Another element that could be added to the ecotourism industry is to have part of the jungle trip include visiting of farms. Tourists could be educated on farming by colonists and learn how coffee, yucca, cacao, and bananas are cultivated on a small farm. Viewing the farms with a farmer would give the tourists an idea of some of the hardships that local people endure to support themselves in the jungle environment. At the present time, jungle guides do bring tourists through farmers fields as part of the trip, but the local farmers do not receive compensation. As part of the tourism industry, rainforest farmers could rent out accommodation to tourists who are interested in spending some time on a local farm and learning about other economic activities.

Currently there is no structure for local people to sell their products directly to the tourism industry, yet there is a continual need for fresh food for the tourists. In small tourism towns, very little effort is made to make it economical for the local people to sell their products. There are several small stores set up that sell handicrafts to the tourists but these establishments do not offer good prices to the local indigenous people who make these handicrafts.

A final important aspect of tourism in Napo is the diversification of the local economy and

A final important aspect of tourism in Napo is the diversification of the local economy and alternatives to employment. The industry that employs the largest number of people in the rainforest is small farm agriculture. This work is extremely labour-intensive and requires good health and a strong body. Ecotourism, on the other hand, is an industry that requires less physical labour; its focus is more on the service industry. In the service industry, survival depends on people skills, cooking, planning, financial management, and, in guiding, a vast knowledge of the jungle. In the town of Pto. Misahualli, for example, the majority of the hotels are run by middle-aged and older people who switched from being colonists to working in tourism to get an easier and probably more stable and secure life.

Another way that the local economy is diversified is through the construction of the built infrastructure, such as hotels, restaurants, and tourist camps. In some instances, the materials are imported from outside the region, but labour is from the local town, and the tourist camps are built using the indigenous housing techniques and forest products.

People involved in the fluvial transportation have also diversified their economy. Before the tourism industry, they transported only people from their farms to the market at Pto. Misahualli. Now they can be paid for spending several months of the year guiding tourists. As well, fluvial navigation costs tourists an extra 50% more than the local people, this increases the boat navigators earnings from the tourism industry.

7.5 Current Defects of Ecotourism

In the previous section, the benefits of ecotourism were discussed. With respect to the negative impacts of ecotourism on the environment, social life, and space, at the present time ecotourism affects only localized areas, particularly in the vicinity of Pto. Misahualli, at the present time.

Ecotourism in Pto. Misahualli and its hinterland has resulted in the construction of four ecotourism resorts and seven ecotourism camps. There has been some negative impact on the environment because of this development. The areas cleared for camps are no longer useful for natural

flora and fauna. Some contamination occurs in both the land and water because toilet facilities generally consist of primitive outhouses. The trails built by guides through the rainforest have disturbed the flora and fauna and on some trails, few signs of wildlife are present.

Other developments have also had an impact on the environment. The local colonists and indigenous population are currently involved in both forest extraction and agriculture, which will probably have a worsening impact on the area. One possibility for lessening the impact of the development of trails for ecotourism is to use trails on a rotational basis. A series of trails can be built every five years and, while one area is being rejuvenated, another area can be exploited.

The Department of National Parks has few people to enforce its mandate in Napo. The encroachment by settlers in protected areas has therefore been tolerated. In fact, in one of the newest parks, Yasuni, the perimeters are not demarcated and there are no signs. Not even the local people can locate the park's boundary.

The patterns of conflict arise when the different economic activities work at cross purposes. Drilling for oil in Yasuni National Park, the construction of the oil road through the Cuyabeno Wildlife Reserve, and colonization within reserve areas by colonists, destroy protected areas and are not sustainable.

Within the Pto. Misahualli hinterland, the indigenous people who own much of the land in the region are not directly involved with the tourism industry and therefore have little interest in preserving the land for tourism.

The shortcomings of the tourism industry result from a lack of organization at the national level. Kenchington (1989) has discussed these shortcomings with respect to the Galapagos. He states that the lack of nature-related information, the limited infrastructure, the poor quality of guide services, poor transportation, and the lack of management, planning and control of ecotourism in the protected area has led to a deterioration of the quality of the system. These shortcomings apply even more to the rainforest ecotourism in Napo. There are few books available on the jungle flora and fauna of Napo (Patzelt 1989), and a handful of guide books that contain minimal information on the province

environment, could benefit from courses to improve their knowledge of the effects of ecotourism in natural areas. The present system is an *ad hoc* system created for ecotourism in Napo. A management plan for tourism in the region does not exist, although there are some government controls on the larger ecotourism resorts. Finally, because of its lack of human resources, the Department of National Parks cannot enforce regulations and control tourist actions within protected areas.

Research in the region has improved our understanding of the negative impacts of tourism. There have been many incidents when guides have taken advantage of the hospitality of the indigenous people, used their homes and their food, and barely given compensation. In some instances, guides have threatened local people that do not cooperate. Indigenous people are frustrated because there is no government body to which they can turn to protest.

These problems are not isolated to Ecuadorians involved in the ecotourism industry. An interview with an employee at the Department of National Parks in Ecuador revealed that a Canadian tour company had allowed animals to be killed for food at the Cuyabeno Wildlife Reserve (F. Coello pers. comm. 1989). These tourists had signed a contract stating they were visiting the area specifically for the purpose of viewing and would not harm the environment in any way. The department is currently planning legal action against the Canadian company.

7.6 Conclusion

In conclusion, ecotourism as it is presently practised is a sustainable activity in Napo only as long as it is not encroached upon by other land uses. Unfortunately, there are other types of development and land uses in Napo, for example, the encroachment of the oil industry and the small farm colonization on primary rainforest, that are not compatible with ecotourism,.

To prevent these activities from conflicting, education and government control is needed. The oil industry and the colonists should be made aware of the destruction they are causing. Environmental

controls should be put in place by the petroleum industry to end environmental contamination by the release of toxic wastes into the river system.

The government of Ecuador should enforce the present zoning of protected areas and indigenous reserves. The areas currently under protection are adequate to ensure that a sample of the rainforest ecosystem is preserved. At the present time, however, protected areas are not respected, and park rules are not enforced.

CHAPTER 8: CONCLUSIONS

The major elements of this thesis are a tourism resource inventory, and the organization and the economic impacts of ecotourism in Napo with particular reference to the differing impacts of the budget and resort ecotourists. Future sustainability of ecotourism in Napo was also discussed.

The combination of different methodologies and techniques used for the field research proved suitable in answering the research objectives. Because of the lack of studies and statistics from other sources, the formal and informal interviews proved vital to the thesis. Interviews with tourists and with people involved in the tourist trade resulted in a preliminary analysis of the ecotourism situation.

The tourism resources in Napo are numerous and diverse with respect to the physical, cultural, and infrastructural resources. Unfortunately, there has been little research conducted on all the potential resources of the area, and work that has been carried out is not concisely documented. In spite of the rich endowment of resources at the present time, these resources are at a primary level of development and have not been exploited extensively by the tourism industry. This is beneficial for the ecotourism industry because tourists can still travel to the area and see that the environment has remained relatively untouched by anthropogenic forces. There is, furthermore, a major scope for expansion of the industry into new areas.

There are two distinct types of ecotourist who travel to Napo, budget and resort ecotourists. Both ecotourist types have distinct travel and spending patterns and spatial modes, as well as differing impacts on the local economy. The budget ecotourists travel mainly to the town of Pto. Misahualli to procure a jungle tour. From this town they can travel to places as far as six days away by boat. They stay at different camps each night. They are spatially dispersed on jungle trips in small groups of less than ten people. The resort tourists procure a jungle trip in Quito and are guided into Napo and to a resort. They stay each night at the resort but take day trips to the different tourist attractions. They are spatially concentrated at the resort and may be in groups of up to 50 people. Another significant difference between the two types of travellers is the amount of money they are willing to pay per day

for a trip. The resort ecotourist will spend up to six times as much as the budget ecotourist.

The budget ecotourist industry is important for employment in the region; over 180 people are employed directly by the tourism industry either in the hospitality sector or in guiding in the Pto. Misahualli hinterland in comparison with approximately 40 people at the resorts in the Pto. Misahualli hinterland.

Budget tourists are important to the local economy of the town and its hinterland. They can be highly dispersed and are more likely to travel to distant places and in smaller groups. They either camp in tents or at specific budget ecotourist camps.

While ecotourism makes a significant contribution to the local economy of the tourist town of Pto. Misahualli, its positive impacts on the economy of the immediate hinterland, isolated areas and even areas near tourist resorts is minimal. The town of Pto. Misahualli has increased to its present capacity to support the ecotourism industry. Many of the local people gain some economic benefit from the ecotourism industry, either from being directly involved with the tours or from working for one of the many commercial establishments in the town. Without the thousands of budget ecotourists, this area would not have developed to its present size.

The resort infrastructure has minimal impacts on the local economy. Local people are hired as boat operators, cooks, cleaners, and supplementary guides, but their numbers are significantly less than for budget ecotourists. Thus, any regional development policy seeking regional multiplier effects should focus on budget ecotourism or reorganize the existing resort ecotourism.

Ecotourism, in Napo if considered in isolation, could be a sustainable type of development if small improvements were made to the current form of its organization. It is external factors such as small-farm colonization and the oil industry which are the main obstacles to the sustainability of ecotourism. Strategies to maintain the sustainability are education of all actors involved and the enforcement of current zones such as indigenous reserves and national protected areas. There is a crucial role for government and the indigenous populations. Also the local colonist population must have a greater stake in the ecotourism economy. Only with greater indigenous participation and control is there a promising future.

Finally, ecotourism is an important force in the jungle of Ecuador. It has an important place in the protection of wild areas, ensuring the survival of the flora and fauna. In the field of research, it is important because it is in the preliminary stages of development. It is hoped that this research will aid in a better understanding of the ecotourism industry in Napo and will facilitate resource planning.

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Appendix 1: Accommodation infrastructure for Napo

Hotels	Rooms	Capacity	*Cost/Night	Age of Hotel	Employee numbers
TENA[2]					
Budget Hotels					
Hotel Amazonico	16	34	600	30	3
Residencial Jumandy	6	18	600	20	2
Residencial Alexander	7	12	1000	5	3
Residential Enmita	18	51	1100	12	4
Residencial Eldorado	10	20	1000		
Hotel El Danubio	8	16	1000	4	2
Residencial Hilton	9	18	1000	8	2
Residencial Aleman	11	16	1500	8	5
Hostal Banos	14	30	800	15	2
Total	99	215			23
Expensive Hotels					
Hotel Auca	16	48	3300	10	9
Hotel Internacional El Mol	33	80	2500/9	3	4
Total	49	128			13
ARCHIDONA[2]					
Budget Hotels					
Residencial Regina	12	24	1200	2	2
Residencial Carolina	10	12	800	2	2
Total	22	36			4
PTO. MISAHUALLI[1]					
Budget Hotels					
Hotel El Paisano	9	20	1000	6	3
Hotel Fifty	9	19	700	3	3
Milca Ieca	10	15	900	5	3
Hostal	8	15	500	20	3
Residencial Sacha	5	13	600	8	3
Balcon de Napo	12	25	500	12	1
Rio Amazonas	11	18	800	7	2
Dayuma	10	25	1000	4	3
Total	74	150			21
HINTERLAND					
Budget Ecotourist Camps					
Location: Ahuano River					
Dayuma		60			6
Misahualli		15			3
Huamani		15			2
Fluviales		15			2
Timara		15			2
Total		120			15
Location: Huambuno River					
Caiman/Cononaco		30			2
Amazonas		30			2
Total		60			4
Resort Hotels					
Jaguar Hotel	16	40	2500	20	11
Cabañas Anaconda	20	60	5000	18	7
Cabañas Suiza	25	50	14/17	0	10
Cabañas Alifahui	5	35		1	5
Total	66	185			33

Appendix 1: Accommodation Infrstructure for Napo (Cont'd)

Hotels	Rooms	Capacity	*Cost/Night	Age of Hotel	Employee numbers
COCA[3]					
Budget Hotels					
Oasis	13	26	1200	11	2
Hotel Florida	25	50	1200	10	1
Hotel Rosita	33	84	600	10	1
Residencial Macara	14	20	600	14	1
Residencial Tungurahua	20	22	700	7	1
Residencial Las Tecas	16	27	700	15	1
Residencial Lojanita	8	16	600	4	1
Pension Cambahuasi	21	41	700	15	2
Total	150	286			10
High Priced Hotels					
Hosteria La Mision	18	40	5000	0	3
El Auca	18	40	1500/2500	15	5
	36	80			8
Resort Hotels[1]					
La Selva	15	30		3	30
Prima Vera					
Flotel Orellana	20	50		12	28
Total	35	80			58
LAGO AGRIO[2]					
Budget Hotels					
Hotel Cabana	24	36	1200	20	1
Hotel Oriental	13	16	2000	4	1
Residencial Acapulco	32	35	700	10	4
Residencial Mexicana	13	9	700	0	4
Casa Blanca	21	21	1000	7	4
Hotel Machala	24	24	700	2	1
Hotel Wiligram	10	16	700	3	2
Hotel Oro Negro	70	100	700	21	3
Residencial Ecuador	17	24	1000	3	4
Residencial Marella	24	48	600	18	4
Total	248	329			28
High Priced Hotels					
Hotel El Cofan	28	36	6250	4	30
Gran Hostal Lago	30	50	6250	2	22
Hotel Machala 2	13	15	2500	1	2
Total	71	101			54
BAEZA[3**]	3	30			

* Prices are in sucres, 550 s/ = U.S.$1.00
** Information obtained from DITURIS 1989
[1] Accommodation is primarily for ecotourists
[2] Accommodation is used by both ecotourists and locals
[3] Accommodation is primarily for oil workers

Appendix 2: Resort Establishment Summaries

Resort ecotourist establishments	Cabanas Alinahui	Flotel Orellana	La Selva	Cabanas Swisse	Hotel Jaguar	Cabanas Anaconda
Owner	Schenkel	Metropolitan Touring	Eric Schwart	Benni	Rosie deRiva deNeira	Napotur
Nationality	German	Ecuadorian	American	Swiss	Ecuadorian	Ecuadorian
Location of resort	Napo River	Coca,Napo River	Napo River	Napo River	Napo River	Napo River
River transport time from Misahuelli or Coca (min)	30	50	3 to 4 hours from Coca	50	40	60
Location of booking office	Quito	Ave. Amazonas, Quito	6th of December, Quito	NA	Ramirez Davalos, Quito	Edif. Banco de Presto, Quito
Total land area of establishment(Ha)	3	Boat	20	3	3	6
Capacity	35	50	34	50	40	60
Official opening date	1988	1978	1986	1989	1989	1971
Construction time for establishment	3 years	unknown	3 years	3 years	5 years	unknown
Costs Per person (accommodation, food, tour)						
Foreigners						
Price range for 3nights/4days	$135-169	$325-565	$430	$14 US per night	$136-209	$136-190
Price range for 4nights/5days	$184-230	$340-700	$530		$150-227	$162-246
Ecuadorian nationals						
Price range for 3 nights/4 days	$94-118	$82-101	$92		$136-209	$73-101
Price range for 4 nights/5 days	$129-161	$109-128	$120		$150-227	$87-$129
Employees						
Number based in Quito[1]	4	29	6	1	3	2
Number based in Napo[2]	5	4	28	10	9	7
Total number of employees	9	33	34	11	12	9

1-Administrators, booking agents, marketers
2-Guides, kitchen staff, boat operators, maintenance workers

Appendix 3: Summary of Information on the River Tour Companies of Pto. Misahuallí

River Tour Companies	Huamani	Timara	Cononaco	Odessa	Primavera	Fluvial	Amazonica	Caiman	Dayuma	Etsa	Misahuallí	Fronteras	Bonanza
Years in operation	5	12	7	1	1	15	65	5	14	9	9	8	10
Origin of owner	Coast	Sierra	Coast	Coast	Colonist	Colonist	Colonist	Columbia	Coast	Sierra	Coast	Colonist	
Number of guides	1	2	2	2	3	3	1	6	6	6	2	5	1
Infrastructure Permanent camp	Yes	Yes	Yes	Rent	Rent	Yes	Rent	Yes	Yes	No	Yes	No	No
Location: Primary	Arajuno River	Arajuno River	Huambuno River	Huambuno River	Huambuno River	Arajuno River	Huambuno River	Huambuno River	Arajuno River	Santa Rosa	Arajuno River		
Location: Secondary						Puni River	Arajuno River			Puerto Rico	Puni River		
Age	5	5				1		4	10		5		
Capacity	10	15	15	15	15	10	10	15	60	10	15		
No. of buildings	1	3	1	1		1		1		20	1	5	
Tents	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Canoes Owned/Rented	R	R	R	1-O	1-O/R	1-O/R	1-O/R	R	2-O/R	R	R	2-O	R
Types of trips Four days or less	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
More than 5 days	N	N	Y	Y	N	Y	Y	N	N	Y	N	Y	Y
Balsa rafting	N	N	Y	Y	N	N	N	N	N	N	N	N	N
Primary location	Arajuno River	Huambuno River	Huambuno River	Huambuno River	Huambuno River	Puyo River	Limoncocha River	Huambuno River Limoncocha	Arajuno River	Napo River	Arajuno River	Shiripuno River	Shiripuno River
Secondary location			Nushino River	Nushino River	Huambuno River	Arajuno River	Huambuno River					Napo River	Tiputini River
Number of employees*	3	2	5	3	1	4	5	3	9	3	4	6	2

N/A Not applicable
O-owned, R-rented
* Includes cooks, assistants, navigators, raft builders

Appendix 4: Summary of Budget Ecotourist Interviews

Location and Date of Interview	Nationality	Age	Profession	I	II	III	*IV	V	VI	*VII	VIII	IX	X	Guide	Cost	Group Size	Location		Other	Transport	Hotel	Food	Total expenditures $U.S.
Lago Agrio 11/89	S.African	27	Doctor	75	28	5	4	2400	2400	4		2400	4	Efrain	22	10	Aguarico River				700	2500	102.83
Coca 11/89	Australian	30	Nurse	365	90	4	6	800	7000	7		4400	2	none	na	6	Limoncocha						20.33
Pto. Misahualli 12/89	German	38	Engineer	28	28	3	1	800	800	1			2	Marco	20	5	Arajuno			800		2500	45.17
Pto. Misahualli 12/89	Dutch	36	Nurse	240	60	10	1	800	800	1	800		2	Marco	20	5	Arajuno	trip	Artega	800		2000	47.33
Coca 11/89	British	50		21	21	5	3	5400	5200	3	5200		4	Wimper	30	5	Panacocha				1500	2000	143.17
Quito 12/89	German	30		365	90	5	5	1800	1400	5	1400		4	Isais	20	4	Campanacocha			no	no		84.67
Galapagos 12/89	Swiss	25		150	60	6	3	5400	5200	3	5200		4	Martha	25	2	Panacocha				1200	2000	122.67
Otavalo 12/89	Swedish	24	Student	90	30	12	1	800	800	2			6	Conanaco	30	4	Panacocha	5000		1000	1200	2000	190.83
Quito 07/89	American	23	Student	75	28	5	1	800	600	2		1300	3	Dayuma	20	5	Arajuno			1000		2000	68.83
Quito 08/89	French	28	none	365	42	5	1	800	600	2		1200	4	C.Lastra	15	10	Arajuno			1000		2000	68.83
Quito 09/89	British	27	Physiotherap-ist	56	56	6	1	800	600	4		5000	3	Hector F	18	5	Arajuno		3000	500	500	1500	77.83
Quito 10/89	Dutch	30	Teacher	42	42	7	1	800	800	4	5200	5000	3	Dayuma	20	9	Arajuno			1000	1500	2000	85.83
Otavalo 10/89	American	25	Missionary	240	240	4	1	800	800	3	5200	5000	1		18	3	Cascades			1000	2500	2000	45.5
Quito 10/89	Australian	35		60	28	5	1	800	800	2		1200	1	C.Swissa	13	3	Arajuno	17	1000	1000		2000	23.5
Quito 09/89	Spanish	35	Nurse	60	60	7	2	1300	1200	3	5200	5000					Limoncocha	1500	1000	500	600	1500	28
Tena 09/89	German	25	Student	70	30	7	1	800	1200	2		1200	4	C.Lastra	15	8	Arajuno			1000		2000	53.83
Pto. Misahualli 09/89	German	26	Med-student	70	70	2	2	1300	1200	1		600					Jantun Sacha	500	3000	800		2000	14.33
Pto. Misahualli 09/89	Germany	25	Student	30	30	4	2	1300	1200	3	5200	5000					Jantun Sacha	500	5000	1000	1200	2500	36.5
Pto. Misahualli 09/89	British	60		28	28	5	1	800	600	1		600	1	C.Swissa	13	3	Arajuno	14	2000	800		1500	22.83
Pto. Misahualli 09/89	British	22	none	180	75	4	1	800	600	1		600	3	Dayuma	20	5	Arajuno			800		2000	67.33

Appendix 4: Summary of Budget Ecotourist Interviews (Cont'd)

Location and Date of Interview	Nationality	Age	Profession	I	II	III	*IV	V	VI	*VII	VIII	IX	X	Guide	Cost	Group Size	Location		Other	Transport	Hotel	Food	Total expenditures $U.S.
Pto. Misahualli 09/89	British	34	Social worker	365	75	4	1	800	600	1	1200						Jantun Sacha	500	5300	800	1200	2000	20.17
Pto. Misahualli 09/89	Australian	25		365	90	10	1	800	600	2		1200	8	Primavera	20	8	Napo River			800	1200	2000	170.5
Pto. Misahualli 09/89	Danish	30	Architect	180	60	10	1	800	600	2		600	8	Hector F.	20	4	Arajuno			0		1500	165.17
Pto. Misahualli 09/89	Swiss	24.3	Nurse	365	90	6	2	1300	1200	2		1200	3	C.Artega	20	4	Arajuno			1000		2500	70.83
Pto. Misahualli 09/89	Australian	60	Gardener	180	60	4	1	800	800	1		800								500		1000	5.17
San Lorenzo 08/89	British	30	Salesperson	180	60	21	1	800		4										500		1500	15.33
Coast 08/89	German	25	Gardener	60	30	8	1	800					6		20								123.83
Pto. Misahualli 09/89	American	36	Traveller	365	30	3	1	800	800	2		1200	2	C.Lastra	20	6	Arajuno		bu	1000		2500	49.67
Pto. Misahualli 09/89	French	30	Pharmacist	21	21	4	1	800	800	1		800	2	C.Lastra	20	6	Arajuno		bu	1000		2500	48.5
Pto. Misahualli 09/89	Swiss	28		35	14	4	2	1300	1700	3													91.33
Pto. Misahualli 09/89	British	25	Student	56	28	7	1	800	1700	2		1700	6	V.Lastra	20	6			bu	1000		2500	131.5
coast 08/89	Canadian	28	Geographer	35	21	4	8	600	600	8		600	4	Cesar	20	2	Puyo		bu	na	na	na	82
Quito 12/89	Canadian	45	Quality Engineer	10	20		2	2	1500	1	800	23											

I Total trip time in South America
II Total trip time in Ecuador
III Total Trip time in Napo
IV Travel route taken in to Napo
V Cost of transportation
VI Travel route taken out of Napo
VII Cost of the plane
VII Cost of bus or boat
VIII Total cost of transportation in sucres
IX Total cost of transportation in $ U.S
X Total number of days on a jungle tour

Appendix 4: Summary of Budget Ecotourist Interviews (Cont'd)

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1 Banos-Tena-Pto. Misahualli-Pto. Misahualli-Tena-Banos
2 Quito-Beza-Tena-Pto. Misahualli-Pto. Misahualli-Tena-Baeza-Quito
3 Quito-Coca
4 Quito-Lago Agrio-Lago Agrio-Quito
5 Quito-Baeza-Tena-Campana Cocha-Campana Cocha-Tena-Baeza-Quito
6 Banos-Pto. Misahualli-Coca-Limoncocha-Limoncocha-Pto.Misahualli-Banos
7 Limoncocha-Lago Agrio-Quito
8 Banos-Puyo

Appendix 5: Interview Questions for Budget Ecotourists

Date of interview

Location of interview

What is your nationality, age and profession?

What is your total travel time in South America?

What is your total travel time in Ecuador?

What is your total travel time in Napo?

What type of transportation did you take to travel in and out of Napo? What was your travel route? How much did it cost? How long did each part of your trip take?

Did you take a jungle trip? If so, how many days were you on the jungle trip?

Which guide did you choose to go on a jungle trip with? Why?

How much was charged each day?

What was the size of your group?

Which location did your jungle trip take place?

What did you do on your jungle trip?

Were you satisfied with the guide and trip?

What improvements would you like to see in any future jungle trips?

After the trip where did you stay? How long did you stay in Napo?

What was the total amount of money spent in Napo?

Comments

Appendix 6: Interview Questions for River Tour Companies in Pto. Misahualli

What is the name of your River Tour Company?

How many years has it been in operation?

What is the origin of the owner or principle guide?

How many guides work for your company?

Infrastructure

Do you have a permanent camp?

Where is the primary location of your guided tours?

When was the camp built?

What is the capacity of the camp?

How many buildings have been constructed?

Do you also conduct tent tours?

Do you own or rent your canoes?

Trip types

Do you guide trips of four days or less?

Do you guide trips of five days or more?

Which do you guide more often?

Do you have balsa rafting trips as part of your tours?

How many employees do you need to carry out these trips?

How many trips do you conduct per week or month?

What is your peak season for giving jungle trips?

What is your low season for giving jungle trips?

Comments