PN-ABA-894

The FORESTRY PRIVATE ENTERPRISE INITIATIVE

School of Forest Resources
North Carolina State University

School of Forestry and Environmental Studies
Duke University

Office of International Cooperation and Development
Forest Service, Forestry Support Program and
Southeastern Forest Experiment Station

Supported and funded by
Bureau for Science and Technology
Agency for International Development

FPEI Working Papers Series
June 1987

Southeastern Center for Forest Economics Research
Box 12254, Research Triangle Park, N.C. 27709 Telephone (919) 541-4221

Nature Tourism and Enterprise Development in Ecuador

By

Mystie A. Wilson

FPEI Working Paper No. 27

FPEI Working Paper Series
June 1987

The SCFER Institutions
USDA Forest Service Southeastern Forest Experiment Station
North Carolina State University Duke University

Wilson, Mystie A. and Jan G. Laarman. 1987. Nature Tourism and Enterprise Development in Ecuador. Southeastern Center for Forest Economics Research, Research Triangle Park, NC. FPEI Working Paper No. 27, 22 pp.

About the Authors

Mystie Wilson is a research collaborator with Department of forestry at North Carolina State University, Raleigh, NC.

About FPEI Working Papers

FPEI working papers are a special series of SCFER working papers issued by the Southeastern Center for Forest Economics Research for the purpose of sharing the research findings of the Forestry Private Enterprise Initiative. These papers are distributed in order to promote the timely release of new theories, data and findings. Working papers represent various levels of research findings and readers are encouraged to contact the author(s) for more information. Some of the papers may be published in modified form elsewhere. An updated list and copies of FPEI Working papers are available from the Center at P. O. Box 12254, Research Triangle Park, NC 27709, (919) 541-4221.

THE FORESTRY PRIVATE ENTERPRISE INITIATIVE

FPEI is a cooperative project executed by the Southeastern Center for Forest Economics Research (SCFER) in collaboration with the USDA Office of International Cooperation and Development (OICD) and the USDA Forestry Support Program (FSP). The primary members of SCFER are the USDA Forest Service Southeastern Forest Experiment Station, North Carolina State University, and Duke University. FPEI is supported and funded by the United States Agency for International Development (AID), Bureau for Science and Technology (S&T) [through its Office of Forestry, Environment, and Natural Resources (FENR)].

NATURE TOURISM AND ENTERPRISE DEVELOPMENT IN ECUADOR

Mystie A. Wilson
Jan G. Laarman

Department of Forestry, Box 8002
North Carolina State University
Raleigh, NC 27695-8002 (U.S.A.)

Telephone: (919) 737-2892

THE AUTHORS

Mystie A. Wilson holds a bachelor's degree in wildlife management from Stephen F. Austin State University, Nacogdoches, Texas. Prior to her experience with North Carolina State University, she worked for three years in Ecuador, conducting research on wildlife in national parks.

Jan G. Laarman has a doctorate in wildlands resource science from the University of California, Berkeley. His current position is associate professor of forestry economics at North Carolina State University.

This investigation was conducted as part of the Forestry Private Enterprise Initiative, a project funded by the U.S. Agency for International Development, Bureau of Science and Technology, Washington, D.C. (U.S.A.)

ABSTRACT

Nature-based observation and adventure figure prominently in Ecuador's tourism attractions. From the standpoints of geography and biology, Ecuador is a small but highly diverse nation divided into four distinct zones: the Sierra Highlands, the Amazon Basin, the Pacific Coast Lowlands, and the Galapagos Islands. Across these four zones is found a wide variety of natural ecosystems for both casual and dedicated naturalists. Nature tourism is oriented primarily to visiting a few private holdings plus the publicly-owned national parks and related reserves. However, the major tour operators and airlines have not yet adopted a formal approach to promoting tourism which is specifically nature-oriented.

The number of international visitors engaging in nature-oriented activities on the mainland falls far short of visitation to the Galapagos Islands. Responsible opinion concurs that development of tourism in the Galapagos must be carefully controlled, but disagreements concern practical interpretation of that ideal. A number of sites in the Galapagos Islands presently exhibit overuse and misuse. Among alternative strategies to relieve this pressure is use of the Galapagos as just one component in natural history expeditions, with the other destinations distributed over the mainland.

A number of subjective reasons suggest that nature tourism should be encouraged. Spokespersons contend that it attracts desirable kinds of visitors; directs economic activity to remote communities; is relatively tolerant of primitive infrastructure; and maintains visitors in the country for more days than other forms of tourism.

Despite these possible advantages, nature tourism is often constrained by low social carrying capacity. Another constraint is the present low level of tourism marketing and promotion. On the supply side, constraints include lack of nature-related information about the country, limited infrastructure and facilities, and deficiencies in guide services.

If diversion of visitors from the Galapagos Islands to the Ecuadorean mainland is to be feasible, major advances will be required in wildlands protection and management, infrastructure development, and marketing and promotion. A first and difficult step is improving communications and coordination among the airlines, tour operators, conservation organizations, national tourist authorities, and national park administrators. Improved communications need to be followed by debate of specific goals and strategies for sector development, the collection and sharing of data on nature tourism, the proposal and funding of demonstration projects, and the production and distribution of promotional materials.

INTRODUCTION

The Galapagos Islands of Ecuador are recognized in the tourist industry as one of the world's most important destinations for naturalists and environmentalists. Less known are the many attractions on the Ecuadorian mainland of potential interest to this same category of visitors. Currently, the Galapagos Islands are suffering from crowding, while many mainland destinations remain underdeveloped and poorly visited. Can this disequilibrium be mitigated by improving the supply and promotion of nature tourism on the mainland?

To attempt to answer this question, we conducted surveys of the Ecuadorian travel agencies, nature-oriented lodges, and conservation organizations. Objectives were as follows: (1) to describe the current structure of nature-based tourism; (2) to assess constraints presently limiting this kind of enterprise; and (3) to recommend strategies for growth and development of this enterprise in the future. Our observations were made during the period May-December 1986.

OVERVIEW OF TOURISM IN ECUADOR

Tourist arrivals by air, land, and water averaged 225 thousand persons for the period 1979-1985. By nationality, neighboring Colombia and Peru accounted for 29 percent of the arrivals, with Europe and the U.S.A. contributing 22 percent and 21 percent, respectively. Arrivals fell sharply between 1980 and 1983, but partially recovered since 1983. A study conducted in 1982 indicated that about one-third of arriving tourists regarded

leisure and vacation as their primary motivation for visiting Ecuador (DITURIS 1983).

Ecuador as a destination combines culture and folklore with nature and adventure. Tours in Quito take visitors to churches and monasteries of the colonial era, museums and galleries, and a site not far from the city which marks the equator. At least ten small and medium-sized cities of the Andean highlands feature Indian markets. Sightseeing itineraries along the Avenue of the Volcanoes are arranged by both train and road. The Pacific coast offers deep sea fishing and a limited amount of beach tourism. Andean mineral springs, and various examples of tropical and mountain agriculture, are other focal points for tourism. Crafts include the making of Panama hats, Indian weavings and jewelry, wood carvings, and leather goods.

Nature-based observation and adventure figure prominently in the attraction base. From the standpoints of geography and biology, Ecuador is a small but highly diverse nation divided into four distinct zones: the Sierra Highlands, the Amazon Basin (or Oriente), the Pacific Coast Lowlands, and the Galapagos Islands. Across these four zones is found a wide variety of natural ecosystems for both casual and dedicated naturalists. Figure 1 depicts the natural history features of the three mainland zones.

However, the number of international visitors engaging in nature-oriented activities on the mainland falls far short of visitation to the Galapagos Islands, which lie a thousand

kilometers off the Ecuadorian coast. In 1986 the total number of visitors to the islands (Ecuadorian plus international) was estimated at 49 thousand, well above the policy limit of 25 thousand. The limit of 25 thousand represents a doubling from the ceiling only four years ago. Moreover, authorities in the National Park Service are considering raising the ceiling once again.

This question of visitation levels in the Galapagos is extremely controversial in Ecuador, and the focus of a power struggle between two large and well-established tourism companies vs. a number of newer and smaller commercial interests who favor continued rapid expansion. The struggle is sometimes perceived as a battleground of business vs. conservation, and Guayaquil vs. Quito. All responsible opinion concurs that development of tourism in the Galapagos must be carefully controlled (Villa and Ponce 1982), but the disagreements concern practical interpretation of that ideal (Gee and Coe 1986).

It is well-established that a number of sites receiving the majority of visitation exhibit overuse and misuse (Moore 1981; De Groot 1983). Other management problems are control of feral animals (Lewin 1978), and, more recently, control of the increasing number of permanent settlers migrating to four islands designated for human habitation.

Because the Galapagos Islands are the obvious key for attracting international tourists, the challenge for Ecuador is management of the Galapagos conflicts without endangering the

overall tourist trade. Among alternative strategies is using the Galapagos as just one component in natural history expeditions, with the other destinations distributed over the mainland. For example, Figure 2 shows the itinerary of a 21-day birding excursion recently introduced by a new firm, covering all regions of the country.

STRUCTURE OF NATURE TOURISM

Hard and Soft Dimensions

The concept of nature-oriented tourism is widely perceived to be one in which the tourist is drawn to a destination because of one or more special interests related to that destination's natural history. The visit combines education, recreation, and often adventure (Laarman and Durst 1987). In Ecuador the tour operators have not yet adopted a formal approach to promoting tourism which is specifically nature-oriented, even though Galapagos trips explicitly feature natural history at the destination.

Nature-oriented tourism has "hard" and "soft" dimensions in two senses. The first hard-soft distinction refers to whether the interest in natural history is dedicated or casual. Dedicated natural history is the kind practiced by ornithologists, botanists, geologists, and other professional specialists. This is the hard version of natural history tourism, otherwise known as scientific tourism. The Galapagos Islands attract a large number of visitors who might be termed scientific tourists, even though others are visiting the

Galapagos mainly because the islands are a well-known place in worldwide tourist circles. This latter group enjoys general facets of natural history, but also attaches great importance to socialization aboard the cruiseship and experiences away from the Galapagos not related to nature (e.g., shopping, culture, and crafts). A psychometric and market segmentation of Galapagos visitors would constitute a challenging research project.

The second hard-soft distinction refers to the physical rigor of the experience. Will the tourist have to walk miles into undeveloped backlands, sleep in a crude shelter, and tolerate primitive sanitary conditions? Or will the tourist stay in first-class hotels, eat in good restaurants, and be conveyed in comfortable transport? Some hard tourism from the perspective of narrow (pure) natural history falls into the soft category from the perspective of physical rigor. It would seem that all four tourism types are possible in the matrix of Figure 3.

Four pilot surveys of visitors touring the Galapagos, the Sierra, and Amazon Basin found that: (1) the international tourists stayed in Ecuador an average of 15 nights; (2) the vast majority of the international tourists were first-time visitors to Ecuador; (3) the number of males and females was about equal; (4) only a small proportion of those on the tours had pursued formal education directly related to natural history; (5) most international tourists made the decision to come to Ecuador on their own or because of friends, not because of advertisements; (6) knowledge of Ecuador's nature-oriented establishments,

national parks, and natural history features was extremely deficient; and (7) total expenditures on lodging, transportation, personal expenses, and excursion package were in the range of US$250-400 per day, depending on itinerary and length of tour. For the most part, these are indicators that our sample included a predominance of "soft" natural history from the standpoints of both professional background and physical rigor.

Nature-oriented Destinations

Nature-based tourism is oriented principally to visiting national parks and related reserves. Although the Galapagos Islands were designated a national park in 1959, most other components in Ecuador's national parks system were not established until the mid-1970s (Armstrong and Macey 1979; Salazar and Huber 1982). The most frequented national park is Cotopaxi, within easy driving distance of Quito and site of the world's highest active volcano. In the last 1-2 years Cotopaxi has received an estimated 60-80 thousand visits annually, with perhaps 90 percent of these visits being made by Ecuadorians on short outings and picnics during weekends and holidays. Activities at Cotopaxi by international tourists include hiking, trekking, and mountaineering. All other Ecuadorian national parks are much less visited, although visits to the less accessible parks may be by those individuals who pursue the more highly specialized natural history interests.

Besides its national parks, Ecuador has a few private holdings that play important roles in natural history tourism. Among the private reserves and establishments are: (1) a lodge

and golf course in the subtropical forests of Pichincha Province known for easy viewing of many species of birds and butterflies; (2) a privately-owned field station in Los Rios Province, offering nature trails through a variety of natural and agricultural land units; (3) the Pasachoa Protected Forest near Quito, managed by the Fundacion Natura for biological research and environmental education; (4) a hotel in the Andean city of Cuenca with tours for trout fishing, mountain trekking, and jungle excursions in a nearby province; and (5) a flat-bottomed floating hotel plus handful of jungle lodges along the Rio Napo in the Amazon Basin, blending nature tourism and ethnic tourism.

Rationale for Encouraging Nature Tourism

Spokespersons in Ecuador identify a number of reasons why nature-oriented tourism should be encouraged. They contend that it is a subjectively wholesome kind of tourism, attracting desirable kinds of visitors. They also maintain that nature-oriented tourism directs economic activity to remote communities, not concentrating all the spending in Quito and Guayaquil. Thirdly, it is argued that certain dedicated types of nature-oriented tourism are more tolerant of primitive facilities and infrastructure (i.e., bad roads, inferior lodging) than are other forms of tourism. Thus, the volume of nature-oriented tourism can increase immediately without necessarily depending on expensive capital improvements (at least, in the short run). A fourth factor is the assumption that natural history tourists may remain in the country for more days than visitors who come for other forms of tourism.

The preceding statements are to be regarded as no more than preliminary hypotheses which need further definition and testing. They represent personal opinions of some of the persons most closely connected with nature-oriented travel, and contain understandable biases favorable to that segment.

SPECIAL PROBLEMS OF NATURE TOURISM

Many tour operators and conservation leaders readily identify unexploited enterprise opportunities for new itineraries and new services related to nature tourism. Despite this apparent growth potential, nature-oriented tourism usually is constrained by low social carrying capacity. The nature-oriented tourist tends to perceive crowding as a problem, not tolerating large numbers of other nature-related tourists. This may limit growth prospects in Ecuador much more quickly and severely than most tour operators presently acknowledge.

A number of additional constraints affect the growth prospects of nature-based enterprise now and in the years ahead. On the demand side, the most frequently cited constraint is the low level of tourism marketing and promotion. On the supply side, the constraints include lack of nature-related information about the country, limited infrastructure and facilities, and deficiencies in guide services.

Marketing and Promotion

A widely shared opinion in Ecuador is that tourism marketing and promotion need much greater emphasis. The small country apparently has little or no image in many of the world's key

tourist markets. In the minds of many tourists and potential tourists, the Galapagos Islands are not geographically or politically identified with the country of Ecuador. Even though tourism ranks among the top three or four sectors in foreign exchange earnings, the government's 1986 budget for tourism promotion was only US$45 thousand.

The major airlines do not use natural history as a theme to promote Ecuador. A number of features on the Galapagos Islands inevitably appear in in-flight magazines. However, none of the airlines currently employs a deliberate strategy to concentrate on natural history as a focal point. The marketing managers seem to perceive that segment of the market as too small, and the theme too narrow, to be of promotional value.

The larger tour operators participate in trade fairs like El Mercado, Las Americas (Miami), and ITB (Berlin). It is not known how many of the smaller enterprises also participate in trade fairs. Advertising in the nature magazines of North America and Europe is considered expensive, and not widely practiced.

Nature References

Written materials about Ecuador's natural areas are limited in quantity and quality. A small number of books describe the country's geography, indigenous communities, and aspects of natural history. However, many of these books are out of print, not available in languages other than Spanish, and not of suitable size and format for traveling tourists. Bird books and flora books in Spanish language are sometimes available through a

few special outlets, but generally are difficult to locate and obtain.

With the exception of Galapagos cruises and the science center in Los Rios province, few of the private establishments which cater to nature-oriented visitors supply maps, bird lists, plant lists, and identification references (Chart 1). This presents a critical deficiency in light of the usual importance these materials have for serious naturalists.

Infrastructure and Facilities

The wide range in price and quality of facilities in Guayaquil and Quito largely disappears in the remote rural areas of greatest importance for nature tourism. A few sites can be served directly from these cities, which is one of the advantages of a small country. However, most in the travel industry stress the need to increase the number and standards of roads, airstrips, hotels, restaurants, and bathrooms in the provinces. Particularly problematic is the condition of infrastructure in the Amazon region.

Also largely missing or deficient are infrastructure and facilities at the national parks and reserves (Chart 2). This refers to access roads, visitor centers and museums, cabins, nature trails, and areas for camping and picnics. The tour operators contend that the national parks need many more personnel (including park guides), roads and trails to get into key areas, and plans for park concessions and nearby services.

International visitors to the Galapagos are charged US$40 or equivalent as an entrance fee (the fee is much lower for Ecuadorian nationals). A part of this revenue stays with the Galapagos Park for its management and protection, while in principle the rest can be directed to other parts of the park system. But through the present, the majority of Ecuador's national parks are not favored with operational management plans or supporting fiscal resources.

A first priority is simply parks protection. The long-run viability of nature tourism depends on saving critical parts of the wildlands resource. Yet several sites which would have been suitable for nature tourism have been ruined by dynamite fishing, poaching and overhunting, and encroachment by forest squatters. Especially in the Amazon region, certain national parks (e.g., Yasuni) and other areas of importance for nature preservation are being overrun with petroleum exploration, clearing for oil palm, and other forms of land development in disorganized and uncontrolled fashion.

Tour Guides

At the level of an individual tour enterprise, the availability and quality of tour guides is perhaps the single most important factor determining the success or failure of nature tourism. One of the roles of the Charles Darwin Foundation is to train naturalist guides for the Galapagos Islands. Yet the high standard of training for Galapagos guides has no direct equivalent for nature guides on the mainland.

At least two distinct categories of guide services are found in the Amazon region. The floating hotel on Rio Napo exemplifies the use of trained bilingual naturalists who discuss the avifauna, wildlife, flora, and importance of conservation for the region. Maps, slide shows, and brief lectures are a part of their presentations.

This compares with other Amazon tours and jungle hotels which hire local indigenous guides to show and describe customs and living patterns of the native people, including the use of plants and animals for household subsistence. Although they are able to make local culture interesting and educational for visitors, the guides have little or no scientific knowledge of the flora and fauna. They may know only the Quechua names for species, and speak limited Spanish. Tour operators sometimes attempt to compensate for this problem by sending bilingual guides to accompany the Quechua guides. Although this helps mitigate language problems, it does little to clarify and amplify natural history.

CONCLUSION

The future of nature-oriented tourism in Ecuador is unclear. Attempted diversion of visitors from the Galapagos Islands to the Ecuadorian mainland is a sensible strategy that finds widespread support, but one which will not be feasible on a sustainable basis without considerable advances in wildlands protection and management, infrastructure development, and marketing and promotion.

These measures require communication and coordination among the airlines, tour operators, conservation organizations, national tourist authorities, and national park administrators. The challenge of improving communications within and among these different groups is perhaps the single most difficult and important step. Once communications are established, the participating parties are in a better position to propose and debate common goals and strategies for sector development. Data and surveys of nature tourism must be collected and shared. Specific demonstration projects must be defined, with alternative means identified for funding. Promotional materials of benefit to all participants, public and private, need to be produced and distributed in key markets. While all of this is ambitious and costly, the balancing of enterprise development with resource conservation requires long-term vision and exceptional commitment.

REFERENCES

Armstrong, G.D., and A. Macey. 1979. Proposals for a Sangay National Park in Ecuador. Biological Conservation 16(1):43-61.

De Groot, R.S. 1983. Tourism and conservation in the Galapagos Islands. Biological Conservation 26(4):291-300.

DITURIS (National Tourism Board, Ecuador). 1983. Plan Maestro de Desarrollo Turistico del Ecuador. Quito. 235 pp. + appendices.

Gee, C.Y., and E.M. Coe. 1986. Strategic Tourism Market Plan for Ecuador. Report to U.S. Agency for International Development, Private Sector Initiatives Project. Quito. 61 pp.

Laarman, J.G., and P.B. Durst. 1987. Nature travel in the tropics. J. Forestry 85(5):43-46.

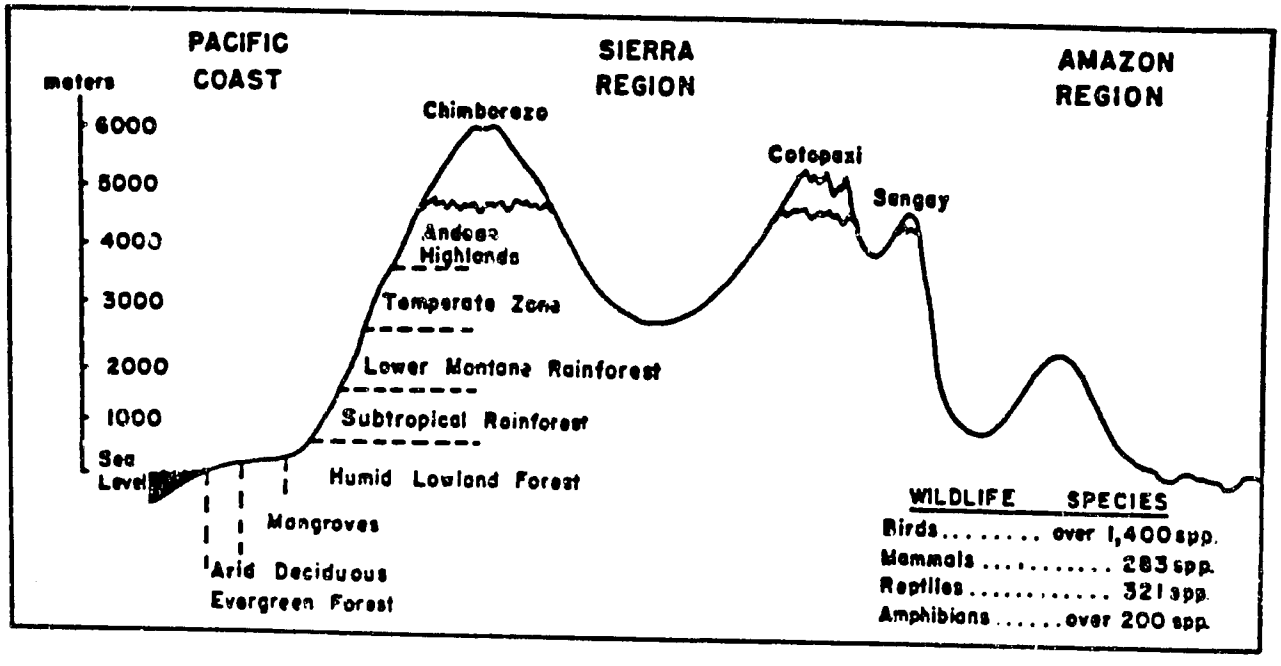
Lewin, R. 1978. Galapagos: the rise of optimism. New Scientist 79(1113):261-263.

Moore, A.W. 1981. Tour guides as a factor in national park management. Parks 6(1):12-15.

Salazar, A.P., and R.M. Huber. 1982. Ecuador's active conservation program. Parks 6(4):7-10.

Villa, J.L., and A. Ponce. 1982. Islands for people and evolution: the Galapagos. In: J.A. McNeely and K.R. Miller (eds.), National Parks, Conservation, and Development, Proceedings of the World Congress on National Parks, Bali, Indonesia, 11-22 October.

FIGURE 1. Natural History Attractions on Ecuador's Mainland.



TOURS / ATTRACTIONS	PACIFIC REGION	SIERRA REGION	AMAZON REGION
Scientific and Technical			
Wildlife Observation	X	X	X
• Bird-Watching	X	X	X
• Butterfly Expeditions	X	X	Xp
Botanical Expeditions	X	Xp	Xp
Agriculture - Forestry	X	X	Xp
Archaeological Tours	Xp	X	Xp
Adventure and Sport			
Mountaineering / Trekking	-	X	-
Fishing	X	X	X
• Deep Sea Fishing	X	-	-
• Trout Fishing	-	X	-
• Jungle Fishing	-	-	X
River Travel (canoe/boat)	X	-	X
Jungle Hikes	-	-	X
Horseback Riding	-	X	-
Excursions and Landscapes			
Indian Culture Tours	X	X	X
Nature Photography	X	X	X
Interpretive Trails	Xp	X	Xp
Mineral Springs	X	X	X
Crater Lakes	-	X	-

X Established tours and attractions

Xp Potential for establishment of tours and attractions

FIGURE 2. Itinerary of Birding Expedition Covering Multiple Regions of Ecuador.

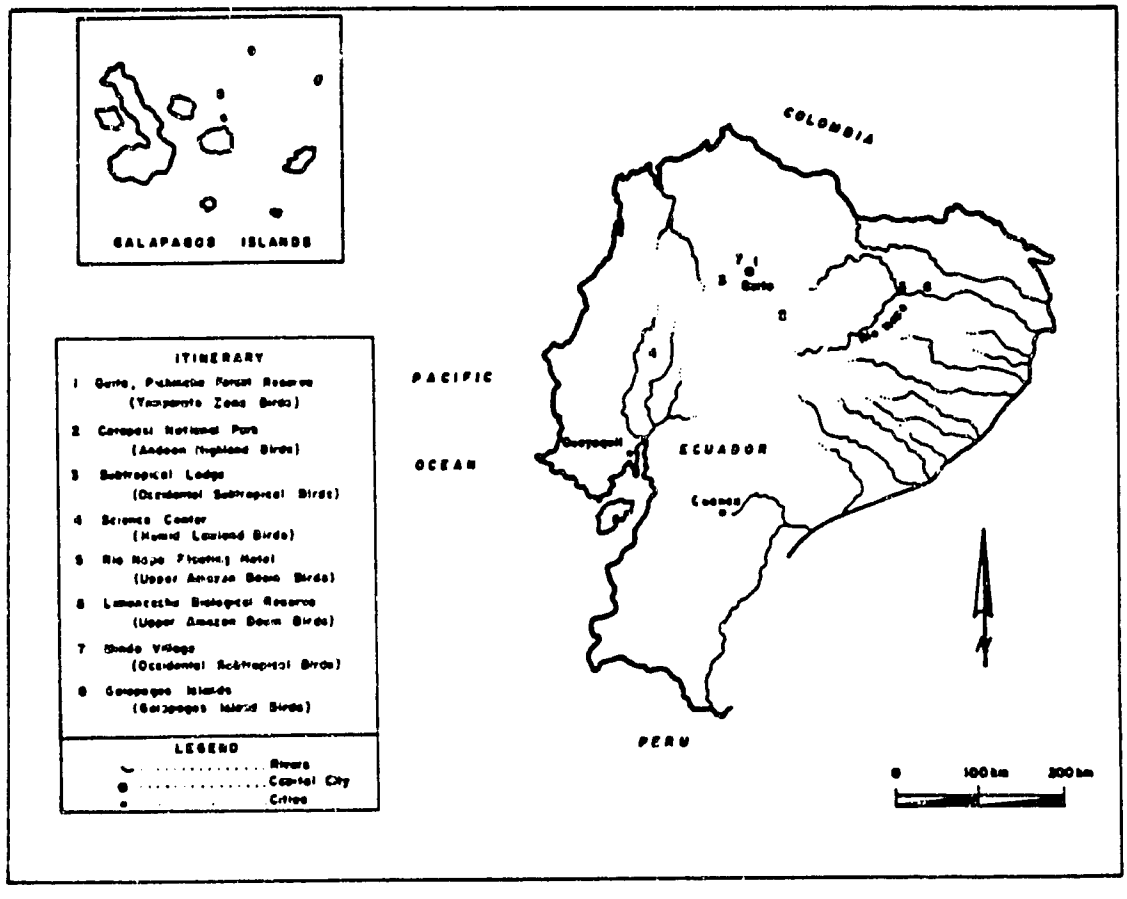


FIGURE 3. A Tentative Cross-Classification of Nature Tourism by Physical Rigor and Dedication to Natural History.

		Nature-Related Interests	
		Hard (Dedicated)	Soft (Casual)
Physical Rigor	Hard (Difficult)		
	Soft (Easy)		

CHART 1. Technical Information on Natural History at Selected Nature-Oriented Establishments.

ESTABLISHMENT	Maps	Fauna Lists	Bird Lists	Plant Lists	Slide Shows	Books
Floating Hotel (Rio Napo)	X	-	-	-	X	X
Island Hotel (Rio Napo)	-	-	-	-	-	-
Mountain Hotel (Cuenca)	X	X	-	-	-	-
Science Center (Los Rios)	X	X	X	X	-	X
Lodge/Golf Course (Pichincha)	X	X	-	-	-	-
Galapagos Cruise (from Guayaquil)	X	-	X	-	X	X

CHART 2. Infrastructure and Facilities at Ecuador's National Parks and Reserves.

PARK/RESERVE	Access Roads	Visitor Center	Cabins	Nature Trails	Camping Areas	Picnic Areas
A. SIERRA						
Boliche	X	X	-	X	-	X
Cajas	X	-	-	X	-	-
Cotopaxi	X	X[a]	X	X	X	X
Pasachoa	X	X	-	X	-	X
Pichincha	X	-	-	X	-	-
Pululahua	X	-	-	X	-	-
B. SIERRA/AMAZON						
Cayambe-Coca	-	-	-	-	-	-
Podocarpus	X	-	-	-	-	-
Sangay	X	-	-	X	X	-
C. AMAZON						
Cuyabeno	X[b]	-	X	X	-	-
Yasuni	X[b]	-	X	X	-	-
D. PACIFIC COAST						
Churute	-	-	-	-	-	-
Cotocachi-Cayapas	X	X	-	X	-	X
Machalilla	X	-	-	X	-	-
E. GALAPAGOS IS.	X[c]	X[a]	X	X	-	-

[a] And natural history museum.

[b] River access (dugout canoe).

[c] Cruiseships and yachts.