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Abstract

Ecotourism, a new term for low-impact nature travel, is receiving increasing attention. The author has researched the development of the U.S. ecotourism market from 1980-1989 in order to obtain data on the growth of this market segment. Factors involved in the growth of the U.S. ecotourism market are then examined in order to project the growth of this market during the 1990's.

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Growth of U.S. Ecotourism and Its Future in the 1990s

by
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Ecotourism, a new term for low-impact nature travel, is receiving increasing attention. The author has researched the development of the U.S. ecotourism market from 1980 - 1989 in order to obtain data on the growth of this market segment. Factors involved in the growth of the U.S. ecotourism market are then examined in order to project the growth of this market during the 1990s.

Ecotourism is a new and increasingly popular buzzword in tourism marketing. Many environmental groups and government agencies currently promote ecotourism as a means of protecting environmentally threatened areas by providing an economic rationale for the preservation of these areas. Yet in spite of increased attention, very little concrete information is available about the size, growth, and vitality of the U.S. ecotourism market.

In response to the growing importance of nature travel and ecotourism, the United States Travel and Tourism Administration plans to incorporate questions regarding these markets in its 1993 in-flight surveys of international travelers.¹ Currently, however, neither it nor any other organization compiles statistics on the U.S. ecotourism market. One of the reasons for a lack of data about the ecotourism market is the fact that a standard definition is not yet agreed upon; indeed, neither participants at the Second International Ecotourism Symposium and Workshop in late 1990 in Miami, Florida, nor at an Ecotourism Workshop sponsored by George Washington University in June 1991 could reach agreement on a definition, in spite of lengthy debate on the matter. Because of this lack of clear and commonly agreed upon terms and definitions, the precise wording of the USTTA's 1993 survey questions remains under debate.²

Ecotourism Involves Natural Environment

In spite of differences in defining ecotourism, certain criteria are generally agreed upon. It is generally agreed that ecotourism is the sub-branch of tourism centered on tourists' desire for immersion in a relatively natural environment in which they and their support facilities have low impact upon the environment. This is the definition utilized in this study. It may be differentiated from traditional "safaris" or "adventures" by the conscious efforts of tourists and tour operators to minimize negative environmental impacts on the destination area. The

Ecotourism Society has recently proposed defining ecotourism as "purposeful travel to natural areas to understand the cultural and natural history of the environment, taking care not to alter the integrity of the ecosystem while producing economic opportunities that make the conservation of natural resources financially beneficial to local citizens."³

Only one segment of the ecotourism market is included in this study, the U.S. ecotourism market, defined as comprising ecotours taken with ecotour operators located within the U.S. and/or its territorial waters, and/or ecotours booked via U.S.-based tourism agencies.

Although the actual population of U.S.-based ecotourism operators and tourism agencies booking ecotours is unknown, most estimates voiced at the Second International Ecotourism Symposium and Workshop were that only a few hundred companies fill this niche. Lack of data on members of this population precluded use of a representative probability sampling; thus, surveys were distributed using a non-probability convenience sampling. Members of the population were located for this study by searching advertisements located in *Specialty Travel Index*, *Sierra*, *Backpacker*, and *Ecologue*. Surveys were sent to 138 advertisers whose marketing appeared directed toward the ecotourism market. In addition, one dozen surveys were distributed to participants of the Second International Ecotourism Symposium and Workshop.

Of the 150 surveys distributed, 53 were returned, a rate of 35.3 percent. Of the returned responses, eight failed to satisfy the requirements of the criteria group; four were returned with the response that they did not offer ecotours (as defined in the cover letter), and four were found to be non-U.S.-based inbound ecotour operators. Of the remaining 45 responses, four were returned with incomplete data that excluded the responses from the study. Thus, a total of 41 properly completed response forms comprise the database of this study, a net usable return rate of 27.3 percent.

The most pertinent of these data are summarized in Table 1, revealing growth in the U.S. ecotourism market from 1980 to 1989, both in terms of numbers of ecotourists and in dollars spent. Survey responses were summed to calculate the number of ecotours provided by respondents in each of the years under study. From 1980 to 1985, the number of ecotours provided by respondents to the survey increased from 33,738 to 45,842, an increase of 35.88 percent. From 1985 to 1989, the number of ecotours again increased, from 45,842 to 75,727, an increase of 65.2 percent. For the most recent interval data are available, 1985 to 1989, this represents a compounded annual percentage increase of 13.4 percent.

Direct revenues were calculated for each of the three years by multiplying survey responses of "average cost per ecotour" by the respective number of participants reported. This analysis revealed that the increase in direct revenues produced by the U.S. ecotourism market exceeded the growth of ecotours sold. Respondents to the

Table 1
Summary of Survey Responses
U.S. Ecotourism Market, 1980 - 1989

	1980	1985	% increase since 1980		% increase since 1985	
Number of ecotours	33,738	45,842	35.9	75,727	124.5	65.2
Direct revenue (US\$)	7,879,490	21,032,215	166.9	44,174,349	460.6	110.0
Total revenue (US\$) (including estimated transportation costs)	8,384,840	23,182,115	176.5	50,680,809	504.4	118.6
Average cost per year (US\$) (direct revenue)	233.55	458.80	96.4	583.34	149.8	27.1
Number expressing environmental concerns	3,551	21,264	98.8	35,766	1006.4	68.2

Opinion of future ecotourism growth (average) 4.52
 Based on scale of 1 = "decrease significantly," to 5 = "increase significantly"

n=41

surveys reported revenues rose from \$7,879,490 in 1980 to \$21,032,215 in 1985, and to \$44,174,349 in 1989. Thus, from 1980 to 1985, direct revenues increased 166.9 percent, and further increased from 1985 to 1989 another 110 percent, or a phenomenal total of 460 percent during the nine-year period. For the most recent period data are available, 1985 to 1989, this represents a compounded annual percentage increase of 20.4 percent.

Revenues Steadily Increase

Responses to the question "average cost per ecotour" were weighted to reflect the number of ecotours sold by each respondent, then used to calculate an average cost per ecotour for each of the three years under study. This analysis reveals the average cost per ecotour was \$233.54 in 1980, \$458.79 in 1985, and \$583.34 in 1989. Reported costs ranged from \$3,500 for a trip to Madagascar to \$25 for a day trip "birding" with a local expert.

Survey responses on the "total" revenues generated via ecotourism, including transportation estimates, during this period show an even greater increase. Unfortunately, these figures are not as accurate as direct revenue figures because they often exclude transportation to designated cities, and several respondents, while acknowledging transportation costs were additional to the "average cost per ecotour," failed to estimate these costs. Thus, the figures presented underestimate the actual transportation revenues generated by ecotourism. Total reported ecotourism revenues (including transportation) increased from \$8,384,840 in 1980 to \$23,182,115 in 1985, and to \$50,680,809 in 1989. Thus, from 1980 to 1985, total estimated ecotourism revenue reported by survey respondents rose 176.5 percent, and from 1985 to 1989 increased by 118 percent. During the nine-year period under study, this represents an increase in total reported ecotourism revenues of over 500 percent. Factoring in reported associated transportation costs raised the reported average cost per ecotour from \$248.52 in 1980, to \$505.70 in 1985, and to \$669.26 in 1989.

Survey responses to the question, "Percentage of customers explicitly expressing concerns about the environmental impacts of their tour," increased from 10.5 percent for 1980 to 46.4 percent for 1985 and to 47.2 percent for 1989. Some of the respondents, however, misinterpreted the question to refer to customer complaints about negative environmental impacts actually occurring, and thus under-reported the actual number of environmentally concerned customers. If only the 26 responses that appear to have properly interpreted the question are analyzed, the percentages increase from 11.8 percent in 1980, to 58.6 percent in 1985, to 68.4 percent in 1989. It should be noted that this analysis does not factor in responses of "1 percent" or "0 percent" as "100 percent," even when it is clear this is what the respondent implied; instead, these responses have simply been eliminated.

While the increase in the percentage of customers concerned about environmental impacts of their tours is striking, when combined with the dramatic increase in the number of ecotourists, it makes an even greater statement. Utilizing the conservative figures arrived at by including all responses, even those which obviously under-reported the percentage of concerned consumers, the survey data reveal that the number of ecotourists expressing environmental concerns about the impact of their tour on the destination area increased from 3,551 in 1980 to 21,264 in 1985 and increased again to 35,766 in 1989. This represents an increase from 1980 to 1989 of over 1,000 percent.

Of the 41 responses to the question, "In my opinion the demand for ecotourism will," 25 checked "increase significantly," 16 checked "increase slightly" (two respondents checked both boxes), one checked "stay the same," and one checked "decrease slightly." Thus, a significant majority of respondents believe ecotourism will "increase significantly," and over 95 percent expect ecotourism to increase at

least to some degree. These responses average out to 4.52 on a scale of 1 = "decrease significantly" to 5 = "increase significantly."

Ecotourism Surpasses Tourism Market Growth

Total U.S. tourism revenues, as measured by the U.S. Travel Data Center, have increased from \$171,785,000,000 in 1980 to \$340,627,000,000 in 1989, an increase of 98.3 percent.

Upon comparison of these results, it appears the U.S. ecotourism market has grown faster than the total U.S. tourism market. Statistical analysis of survey results utilizing a "t" test with an alpha level of .05 confirms that the mean percentage growth rate for the U.S. ecotourism market, as measured by either total revenues or direct revenues, is significantly higher than the growth rate of the total U.S. tourism market. It should be noted that this statistical analysis required the calculation of variance for each respondent. This necessitated eliminating from this analysis all surveys that did not report any revenue from 1980 because a meaningful percentage growth could not be computed. As a result, only the 24 survey responses that reported ecotours in 1980 were used in this statistical analysis. Factoring in the surge in the number of firms that have begun offering ecotours since 1980 clearly adds support to the contention that the U.S. ecotourism market is increasing its market share of the total U.S. tourism market.

"Projecting a trend, although a task relatively free of restrictive assumptions, does depend on the assumption that the collection of factors influencing a time series of interest during the period used in obtaining the trend equation will continue to influence the series in essentially the same way in the forecast period."⁴ Thus, forecasting the future of the U.S. ecotourism market in the 1990s requires not only a time series trend analysis, but, more importantly, understanding the forces that have given rise to the past growth of the U.S. ecotourism market, and their applicability to this time period.

Ecotourism Minimizes Negative Impact

The critical factor that differentiates ecotourism from other more traditional forms of tourism is the conscious effort to minimize tourism's negative environmental impacts. Although the ecological impacts of tourism are only now beginning to be recognized and in order to become more completely understood require far more profound study, what is increasingly clear is that tourism does, in fact, exert serious environmental impacts on many areas, especially relatively pristine and unusual areas which attract tourism. Recognition of this fact has impelled the growth of the ecotourism market both from the demand and the supply side.

The primary impetus for the development of ecotourism demand has been the "Greening of the Marketplace," or the willingness of consumers to take into account environmental impacts of consumption when making consumer choices, in conjunction with the increasing recognition that tourism often has serious environmental impacts. Attention to the environmental impacts of tourism has increased

sharply over the past several decades for three basic reasons. First, the number of tourists has surged, making the "travel industry the largest single economic industry in the world"⁵; second, tourists have increasingly sought out new, unusual, and often environmentally fragile destinations; and, third, the combination of these two factors has compelled ecologists to assess the environmental impacts of tourism and publicize warnings regarding potential negative consequences.

While the science of assessing the environmental impacts of tourism is still in its infancy, "Few if any, would deny that tourism development, while generating considerable socioeconomic benefits, can be a force causing much irreversible damage to the environment."⁶ Mass awareness of this fact, in concert with the willingness of consumers to take into account the environmental impacts of their choices as consumers, has created the demand for ecotourism.

As noted in the section on survey responses, the "Percentage of customers explicitly expressing concerns about the environmental impacts of their tour" increased from 3,551 in 1980 to 21,264 in 1985 and increased again to 35,766 in 1989. This represents an increase from 1980 to 1989 of over 1,000 percent. Clearly, consumers' growing awareness of the negative environmental impacts of tourism has been a major force driving the remarkable increase in ecotourism demand. This trend shows no sign of abatement and should continue to increase demand for the ecotourism market in the 1990s and beyond.

Although numerous studies detailed the negative environmental impacts of tourism projects, it was not until the tourism industry became aware of the transformation of tourist destinations and the cyclical development of these areas, with resultant economic impacts, that environmental impacts were seriously considered within the tourism industry.⁷ Several models of the transformational nature of tourism have been proposed. Pearce, in *Tourism Development*, delineates six phases of the cycle. Miossec⁸ bases his model on four phases, as does Holder.⁹ Thurot¹⁰ bases his model in terms of class succession. Plog¹¹ emphasizes the personalities of different travelers, focusing on "allocentrics" and "psychocentrics."

Although the detail and perspective involved in the numerous models differ, they all lead to the same basic conclusion. "A paradox of tourism... is that the industry carries within itself the seeds of its own destruction. Successful development of a resource or amenity can lead to the destruction of those very qualities which attracted visitors in the first place."¹² Recognition of this fact has led shrewd long-term investors to seek to create a supply of tourism facilities which do not degrade the environment and thus their long-term profitability. Evidence that more investors are becoming aware of this fact is found in survey results; only four respondents were engaged in ecotourism in 1970, with the number swelling to 22 in 1980, and to 41 in 1989. As the long-term economic benefits of preserving natural resources and the pitfalls of damaging these resources become obvious to more

tourism operators, the trend of offering an increasing supply of low-impact facilities and activities will undoubtedly continue throughout the 1990s.

Traditional Tourism Is Influenced

The growing consumer demand for low-impact tourism, and the recognition that degradation of natural resources degrades long-term tourism profits, have even begun to influence operators in "traditional" tourism operations. The growing awareness of the advantages of providing low impact tourism was fully evident during the recent Environmental Symposium for the Hospitality Industry held February 25, 1991, in the Florida Keys. Not only was it co-sponsored by Cheeca Lodge, one of the Keys' foremost hotels, in concert with Reef Relief, an ardent and vocal environmental group, but it was also sanctioned by the Upper Keys Hotel and Motel Association, the Key West Hotel and Motel Association, and the five chambers of commerce located throughout the Keys.

Participants from the tourism industry, government, and non-profit groups all agreed that providing environmental protection of the natural resources which attract tourists to the Keys is a goal in which they all must cooperate. Several speakers noted that providing this protection will not only allow for the sustainability of Keys tourism, but the explicit dedication of the tourism industry to environmental preservation will entice tourists who do not want to contribute to the environmental desecration of tourism destinations. In fact, one speaker, ecotourism authority Herbert Hiller, expressed his well-founded opinion that environmental groups will soon issue rankings of tourism destinations based on the environmental impacts and/or protection derived from tourism. In fact, one such system can already be found in *Ecologue*¹³, but it is extremely limited. Such a rating or ranking system would not only make consumers more aware of their impact as tourists, and the options available to them to minimize this impact, but would simultaneously motivate tourism suppliers to provide low impact tourism. This development will undoubtedly further fuel the rapid growth of the U.S. ecotourism market.

Thus, the two primary factors which have impelled the growth of the U.S. ecotourism market's share of the total U.S. tourism market from 1980 to 1989, *i.e.*, increasing supply and demand resulting from awareness of the intrinsic relationship between natural resources and tourism, will continue to operate throughout the 1990s. As a result, it is reasonable to project historical trends regarding this market for the 1990s. Statistical time series analysis utilizing a conservative linear trend reveals that the growth of the U.S. ecotourism market will continue to significantly exceed that of the total U.S. tourism market throughout the 1990s. Although a parabolic trend analysis fits the survey data more closely, and projects an even greater increase in the U.S. ecotourism's market share of the total U.S. tourism market, it is riskier than the linear analysis because of a dearth of historical data on the U.S. ecotourism market, and because

of its propensity to generate unrealistic projections. Yet, regardless of which trend analysis is utilized, each projects the growth rate of the U.S. ecotourism market continuing to significantly exceed the growth rate of the total U.S. tourism market. This analysis is supported by expert opinion gathered via this survey. A significant majority of respondents, all of whom represent established companies in the tourism industry and are intimately involved in ecotourism, believe the ecotourism market will increase significantly, and over 95 percent expect the ecotourism market to increase at least to some degree.

Ecotourism Market Can Accelerate

During the next decade, the U.S. ecotourism market has significant opportunities to sustain and even accelerate the phenomenal growth this market segment has experienced from 1980 to 1989. The chief obstacle which must be confronted, however, is preservation of relatively pristine destination areas. In order to accomplish this laudable goal, further research is essential to establish carrying capacities (biological, social, and physical) and to manage visitors to ensure that carrying capacities are not exceeded. Difficulties inherent in establishing carrying capacities require that constant vigilance must be exercised to determine if management goals are being met, or even if the original management goals were appropriate.

Another obstacle is the use of the ecotourism label by unscrupulous tourism agencies or operators who seek not to employ the principles inherent in ecotourism, but instead seek to exploit the growing popularity of the ecotourism market as well as the environment. To help impede this possibility, an independent organization to rank the environmental impacts of tourism operators on destination areas should be established. Not only would such an organization help expose unscrupulous companies, as well as desirable prototypes, it could also help the tourism industry to minimize environmental impacts by establishing and disseminating environmental impact standards for the industry. The need and desire for this type of information was highly evident at the recent environmental symposium in the Florida Keys. Many lodging, tour, and food service operators showed remarkable ignorance about the environmental impact of their operations and a sincere willingness to adopt practices with low environmental impact, particularly when they discovered these procedures could often save them money. Among simple changes suggested by experts were the replacement of standard landscaping with xeroscaping, reduction of electrical and water consumption, and reducing the production of solid waste via recycling and careful purchasing.

Not only would establishing such a system help to gain compliance from the hospitality industry regarding environmental impact, but would further promote demand for ecotourism. The recent popularity of books such as *Fifty Simple Things You can do to Help Save the Planet* demonstrates that a large segment of the American population is concerned about the environmental impact of its lifestyle

and is seeking ways to minimize negative environmental impacts. The publicity generated by establishing tourism standards and ranking operators and destinations upon this criteria would doubtlessly make more people aware of the environmental impacts of tourism, while simultaneously offering them explicit alternatives to high-impact tourism.

Emphasizing ecological education and interpretation focused upon destination environments, their relationship with larger ecosystems, and man's impact upon these ecosystems will help to enlighten participants about man's impact on the environment, particularly the impacts of tourism. This will further motivate participants to adopt the principles of ecotourism when planning their next vacation, and to inform others about the desirability of low-impact tourism. Successfully adopting this strategy will provide further impetus for the growth of ecotourism.

Finally, ecotourism operators must not be content merely to minimize negative environmental impacts of their own operation, but must provide economic and political support for environmental preservation. Avenues available for such support include local environmental preservation initiatives, examples of low-impact facilities and activities concurrent with high quality experiences, demonstration of the economic advantages of preservation of natural resources for tourism relative to other alternatives, and direct economic support of environmental protection of destination areas.

By adhering to these recommendations, the future of ecotourism is bright, not only for the next decade, but for the foreseeable future.

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