CHANGE THROUGH TOURISM: RESIDENT PERCEPTIONS OF TOURISM DEVELOPMENT

A Dissertation

by

MINSUN DOH

Submitted to the Office of Graduate Studies of
Texas A&M University
in partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

December 2006

Major Subject: Recreation, Park and Tourism Sciences

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ABSTRACT

Change through Tourism: Resident Perceptions of Tourism Development.

(December 2006)

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Chair of Advisory Committee: Dr. Carl Scott Shafer

Many view tourism as a tool for community development. Especially in the rural areas experiencing economic hardships, tourism often is considered an instrument for revitalization of a local economy helping to improve quality of life and protect natural and cultural resources.

However, many researchers have raised concerns about an overly optimistic view by asserting that tourism development inevitably affects the corresponding community. Empirical studies suggest that development of tourism brings environmental, sociocultural, and economic changes to the community where it is developed. Thus, it is important that planners look at the attitudes of local people towards tourism development in their community before an actual development takes place.

The conceptual basis of this study is development and change theory and empirical findings of tourism impact research. This study provides information to assist in understanding questions related to the rural communities' tourism planning process in

a development context, and residents' perceptions of the impact of tourism and its further development.

A self-administered mail-back survey was administered to see how the residents of Brewster County, Texas perceive tourism development in the region. Considering the 43% of the Hispanic population in the area, both English and Spanish versions of the questionnaires were sent to the possible respondents. The overall response rate was 37% after two rounds of survey administered during January and February of 2006.

The structural model confirmed that people's value orientation regarding nature was an important variable that explained residents' community attachment, which influenced their attitudes toward tourism through attitudes toward local participation. The results indicated that residents' values were oriented toward nature and that they were highly attached to their communities. In addition, their tourism attitudes were varied based on the types of tourism impacts they were expecting. Although they were supportive of tourism related development, they felt that certain types of tourism development were more appropriate for their community. Specifically, "medium impact" tourism development were perceived to be desirable for the northern part of the region, whereas low impact development options were perceived to be more acceptable for the southern part of the region by their residents.

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During the time in College Station, filled with lots of precious moments as well as memories of hardship, I owed so much to many people around me. I would like to express my sincere appreciation to these people for their help, guidance, and support.

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With the support and endless love from all of you, I can now prepare for another journey as a teacher and researcher!

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CHAPTER I

INTRODUCTION

Tourism has become one of the largest and fastest growing industries and is a social phenomenon of major importance (Sharpley, 2002). Trends in increases in leisure and recreation activities, and greatly enhanced mobility and access to different types of transportation services have enabled more tourism in people's lives. With tourism's expansion has come a realization that it can bring various benefits to the communities where it is developed.

Tourism offers a wide range of opportunities for rural destination communities such as revitalization of the economy, improvements in quality of life, and preservation of natural and cultural resources (Gursoy & Rutherford, 2004; Jurowski et al., 1997; Smith & Krannich, 1998). In fact, a substantial number of communities in the U.S. have been undergoing significant economic, sociocultural and demographic transformations in the last 20 years, and tourism has been viewed as a tool to help communities create change to revitalize and diversify the local atmosphere and economy (Howe et al., 1997; Mason & Cheyne, 2000).

Tourism development may also help preserve historical, cultural, and natural(Andereck & Vogt, 1996). Especially for small rural communities where

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This dissertation follows the style and format of *Tourism Management*.

economic resources and help a community become more attractive and prosperous bases were traditional industry such as agriculture, mining or forestry, tourism development is seen as a solution to enhance residents' quality of life through various sociocultural and environmental amenities and economic growth. According to Machlis and Field (2000), park-driven tourism brings local communities benefits such as support for cultural and natural area preservation, enhancement of cross-cultural understanding, encouragement of community pride, and identification of a community attractiveness that could draw together outside interests (Machlis & Field, 2000). People have begun to recognize that successful tourism development may be a viable addition or alternative to traditional economies (Howe et al., 1997). As a result, tourism has been receiving increased recognition as a regional development tool in communities throughout the U.S.

However, many researchers have raised concerns about an overly optimistic view by asserting that tourism development inevitably affects both the visitors and the corresponding community (Andereck & Nickerson, 1997; Lankford, 1994; Lindberg & Johnson, 1997; McCool & Martin, 1994). These researchers studied the impacts of tourism development on local areas from various perspectives. Communities may have to deal with some of the negative consequences of tourism that affect the quality of life of local residents, such as seasonal population fluctuations, external corporate control of decision making in community issues, and increased social, environmental, and economic nuisances related to safety, pollution, traffic congestion, inflation, and land speculation (Mathieson & Wall, 1982; Millman & Pizam, 1988). In fact, some studies show that such development benefits only a few economically and politically astute

locals or even outsiders who have access to the resources (Logan & Molotch, 1987; Zhang & Fang, 2004). The purpose of these studies has been to understand host communities' attitudes toward tourism impacts and identify various factors affecting residents' attitudes that have implications for future tourism development.

Irrespective of how tourism is introduced and developed in a community, support of the local population toward tourism is a critical feature that can influence the success or failure of its development and operation in a sustainable manner. It is increasingly recognized that achieving the goal of favorable community support for the tourism industry requires an understanding of how residents formulate their attitudes toward tourism (Jurowski et al., 1997; Milman & Pizam, 1988). They may contribute to the well-being of the community through their participation in the planning, development, and operation of tourist attractions, and by extending their hospitality to tourists in exchange for the benefits (e.g., income) of tourism. Residents may also play an important role in discouraging tourism by opposing it or showing hostile attitudes toward tourism developers and tourists. Unless tourism development is more responsive to people's needs over the long term, it may not be worth the social, cultural and environmental impacts and changes to rural communities (Machlis & Field, 2000). Thus, resident attitude studies on tourism development are important as a tool for successful and sustainable community development.

If ill-managed and unplanned, tourism can shatter the culture and environment of the area, and distort the economy of a place. If well-managed, it can reinforce the existing economy and help sustain the livelihoods and character of the place (Clifford &

King, 1993). Enhanced understanding of the residents' attitudes and their relative influence on support for the tourism industry would better equip tourism managers and planners to adjust their decisions and efforts to enhance positive outcomes.

Paradigm Shift in Environmental Thinking: Sustainable Tourism Development

It was less than two decades ago when a new environmental consciousness, the concept of sustainability, stressed the need to preserve, protect and sustain resources for the future. Unlike the traditional view on development, the concept of sustainability required a balance between growth and conservation. Correspondingly, sustainable development expresses anxiety about the impact of the prevailing pattern of development on the environment, and stresses the need for an equitable and sustainable form of development. It has received support at every institutional level, from local organizations to international agencies, partially because it reinforces a worldview of economic growth as the engine of both development and environmental protection.

At first, use of the term sustainable development meant keeping a business growing economically. The term has slowly evolved into a concept that combines environmental conservation and economic growth, and has begun to be applied in social and policy contexts (Gale, 1990). For Muschett (1997) and many other researchers (Barbier, 1987; Campbell & Heck, 1997; Inskeep, 1991), sustainable development is a process that must include three systems; the ecological, the economic, and the sociocultural systems. They

argue that sustainable development occurs only when its goals and actions are simultaneously ecologically viable, economically feasible, and socially desirable. In the sustainable tourism development context, this means that the development of tourism must follow ethical principles that respect the culture and environment, the economy and traditional way of life, and the leadership and political patterns of the host area (Cronin, 1990; McCool, 1994).

A primary objective of sustainable development, therefore, is to provide lasting and secure livelihoods that minimize resource depletion, environmental degradation, cultural disruption, and social instability. Although the emphasis given to a set of objectives depends on the researcher's viewpoint, all of the three objectives must be brought into concordance before sustainable development can be achieved. However, the economic component has been emphasized in tourism context in the past, leaving the other two elements relatively unconsidered (Jafari, 1990). Many researchers show support for equity among the three major platforms of sustainable tourism, and the challenge has been to ensure that this equity is achieved in the future also.

Owen et al. (1993) and many other researchers claimed principles that could help determine which development projects would truly promote environmental, economic, and cultural sustainability. In a tourism context, they claim that it must grow from within and not be forced from the outside. It should respect the character of an area and be sensitive to the needs of the host population. Mitchell (1997) also points out that key aspects of sustainable development should foster empowerment of local people, self-reliance, social and environmental justice, and participation by the underprivileged and

marginalized. The local population should be able to influence the decision-making process. It is said that local involvement in development processes is likely to assist the formulation of more appropriate decisions and to generate an increase in local motivation.

Bramwell and Sharman (1999) developed a typology of how people participate in development and management programs, ranging from passive participation where people are told what development project is proceeding, to self mobilization where people take initiatives independent of external institutions. They argue that if development is to be sustainable, then at least functional participation must be achieved which includes the forming of groups by local people to meet predetermined objectives related to the development activities. It should also provide the basic necessities of life and secure quality living conditions for all people, promote equity, and avoid unequal exchange. Therefore, to develop more realistic and practical approaches to sustainable tourism development, especially for America's rural communities, managers and planners should deal with the relative acceptability and manageability of tourism impacts that come with development (Burns & Holden, 1995; Burr, 1995; McCool, 1994; Nozick, 1993; Owen et al., 1993).

On the other hand, tourism is increasingly confronted with arguments about its sustainability and compatibility with community development (Grumbine, 1994). The tourism industry has tended to advocate a development-oriented approach to sustainability, while the conservation movement has adopted a more biocentric approach focusing on ecological preservation. Since tourism and recreation use always lead to

some level of impairment in natural systems, the question is primarily how much change is accepted by those who are affected the most by tourism induced impacts.

For tourism development to be sustainable, Butler (1991) suggested that coordination of policies, proactive planning, acceptance of limitations on growth, and commitment to a long-term viewpoint should be fulfilled during the planning stage. Most of all, an important aspect of sustainable development is to emphasize community-based tourism (Burr, 1995). This approach to tourism focuses on community involvement in the planning and development process, and developing the types of tourism which generate benefits to local communities. It applies techniques to ensure that most of the benefits of tourism development accrue to local residents and not to outsiders.

When implementing sustainable community development, it is difficult for everyone to reach consensus. Because of the diversity of sustainable development components and different interests of the people involved, it is not easy to satisfy everybody. Distrust between the government and local communities, poor communication, and lack of leadership and cooperation are known to be major barriers to the successful implementation of sustainable practices (Berry & Ladkin, 1997; Pigram, 1990). Therefore, the authorities should acknowledge the importance of public participation and include the communities in the decision-making process in all stages of development.

The success, or sustainablility, of tourism development depends on local communities being able to organize, participate, and influence development priorities, to

access resources and information, and to select and help develop productive and environmentally sensitive technologies. Jamal and Getz (1995) point out the need for locals to participate in the planning process and create a range of alternatives. This requires leadership development by educating the locals about social change and helping them improve their abilities to communicate ideas to facilitate desirable outcomes.

In addition, Grumbine (1994) and others argue that sustainable development will not be a viable alternative until the human centered environmental thinking is changed to biocentric way of life (Grumbine, 1994; McCool, 1994). For a few decades, societies have been showing a shift towards sustainable thinking. A paradigm shift should be achieved and a new sustainable ethic should be recognized before implementing a sustainable development process. Only then can we start to provide education to raise awareness and allow people and communities to play an effective role in the planning process.

Based on related theories on community change and development, this study aims to understand attributes for a successful sustainable tourism planning process in a rural development context. There have been diverse opinions of how residents perceive tourism differently in an area. This study will take into consideration various attributes suggested by the theory to investigate people's differing attitude towards tourism development. It will also provide information useful in understanding rural residents' perceptions on tourism by looking at relationships between the ways they think about their community and participation in community affairs, and how they would relate these to development of tourism and its impacts.

Background of the Study

One of the most significant changes in National Park (NP) areas in America is the increase in their popularity and use. According to Machlis and Field (2000), visits to NPs increased by more than 66 million people from 1980 to 1998, a 30% increase (Machlis & Field, 2000). As the baby boomers age, and as the retired, affluent, healthy, and mobile senior citizens increase, the NP visits are expected to grow even more.

National park visitation plays an important role in regional rural development and is critical especially to isolated gateway communities. For gateway communities, NPs can often be the economic engine, and play a dominant role in all aspects of the community life. Accordingly, the role of national parks in their future is significant, critical, and enduring. At the same time, rural development and the growth of gateway communities have immense impacts on the area due to increased demand for natural resources and development of needed infrastructure (Machlis & Field, 2000).

Issues in rural development in the United States will continue to be intertwined. Regional rural development and the growth or change of gateway communities has a powerful influence on their resources, management, visitor experience, as well as locals' quality of life. This relationship has implications for policy, management, and research relevant to rural tourism destinations and rural development decision makers, as well as those interested in the development and the residents of the areas.

Big Bend National Park is located in Brewster County, in west Texas. It is a moderately visited tourist destination with the annual visitation of about 334,000 (the

average 2001-2004 annual visitation was 334,059), and is emerging as an increasingly important nature based tourism and recreation destination both nationally and internationally. The visitation to Big Bend increased by 12.6% from 2003 to 2004, and in 2005, 75% of the average visitation had already been met in July (253,082 visits until July 2005, National Park Service, 2005) indicating yet another increase. In general, the park is well recognized for its abundant historic and natural attractions and opportunities for outdoor recreational activities based on the river and mountains.

With a growing visitation rate and interest in the tourism industry by many locals in the area, the Visit Big Bend Tourism Council (VBBTC) was formed in 2001 by more than 80 local business owners in the area (Shafer et al. 2004). The initial objective of its formation was to work together to find ways to market the area more effectively and to level out high seasonality in their tourism businesses. As a part of a process to plan for tourism development, they funded a visitor survey in 2003.

According to the results from the survey, about half of the visitors (49%, 261 out of 533) were from four major urban areas of Texas (Austin, Dallas, Houston, San Antonio and their vicinity-within 10 miles of radius from city boundary), seeking relaxation and experiences in natural settings. Fifty three percent of all the respondents were repeat visitors, and they preferred a specific season for visiting. Socio-demographically, they had much higher household income (median income of between $75,000 and $84,999) and education (70% were college graduates) than that of the average Americans (median household income of US is $43,564 and 27% hold at least college degree, US Censu,s 2003).

Although visitors indicated there was a lack of choice in accommodations, recreational opportunities, and quality service, most preferred little to no expansion of tourism related service provision in the area. Although the respondents seemed to feel some inconvenience due to lack of facilities and services provided during the high seasons, they rated their experiences worth their time and expenses, and indicated a high level of willingness to revisit the area (Shafer et al., 2004).

Since the Big Bend (BB) area was perceived by the visitors as a serene, natural, peaceful, and relaxing area, they did not seem to want the area to be transformed to a place they might experience easily in their everyday environment. There were indications that visitors to BB area did not want further development that would potentially spoil the exisiting atmosphere. In fact, some respondents expressed dislike of current commercialization and overdevelopment of the surrounding areas such as a recently developed resort in Lajitas. In the 2003 survey, more than 20 visitors made unfavorable comments regarding the development of the area such as "*The devastation of its natural beauty, and culture by disrespectful development (Lajitas),*" "*Inappropriate development at Lajitas is ruining charm of the area. I will not go there again*," and "*This year we made the mistake of spending the first night in Lajitas. The bizarre 'resort' was full of snooty people who don't get the beauty of Big Bend as is and are trying to turn it into something else. I do not like places like Lajitas that cater to rich people and destroy the environment*."

In addition, different groups of visitors hold different opinions regarding the levels of expansion in the area. Those who perceived this trip as an opportunity for

educational experience and those who sought social relationships during their trip wanted to see more service expansion. On the other hand, those who put an emphasis on the experience of nature and physical fitness wanted less service expansion.

However, specific questions regarding what types of service/facility expansion people would prefer, and the nature of the effect of expansion remain unanswered especially from the perspective of the locals. With the increased interest in tourism industry, it is important to recognize that not all stakeholders will be content with associated changes. Some might look at tourism development as a way to upgrade their quality of life but others will hold a different position such as seeing tourism as degrading the community's sociocultural norms, values, and the natural resources. In accordance with their differing attitudes, it is possible that some would support certain types of tourism development in their community and some would not. Perceptions of tourism development usually are varied and reactions to it are diverse (Andereck & Vogt, 1996; Purdue et al., 1990; Snaith & Haley, 1995). Since it is the residents who are mostly going to be affected by the changes, and who will affect the success of tourism industry in the area, it is necessary to investigate their thoughts and attitudes toward issues regarding further expansion and development of tourism in the area.

Purpose of Research

The conceptual basis of this study is on community development theory and empirical findings of tourism impact research. This study will provide information to assist in understanding questions related to rural community tourism planning processes in a development context, and will provide information useful in understanding residents' perceptions of tourism impacts and its development.

Five basic questions initiated this study; 1) what are residents' responses toward tourism related changes in the areas surrounding a national park, 2) what are the important elements of the community change theories that affect people's perceptions of tourism, 3) how do these attributes influence gateway community residents' attitudes toward tourism impacts and tourism development, 4) will attitudes toward tourism impacts influence attitudes toward future tourism development, and 5) what are the desirable types of development for the successful growth of a nature based tourism destination perceived by the respondents?

The goal of this study was to help set the basis for development planning by understanding tourism related changes consistent with residents' needs. Analyzing how and in what way the development of tourism influences the attitudes of locals can increase the understanding of public participation and guide community based tourism development.

Study objectives have been developed to provide a better understanding of the different perceptions of people living in the BB area. The first objective is to investigate

factors that might affect people's perceptions of tourism impacts and tourism development. According to community development theories (Rickson, et al., 1990), value orientations, level of community attachment, attitudes toward and actual participation in community affairs may be the factors that are expected to explain people's different attitudes towards potential tourism impacts and tourism development.

An area is comprised of many different individuals who may have different interests and concerns. The nature of intensity of attachment to the place and value orientations regarding nature may be an important determinant of how people perceive potential changes related to a growing tourism industry, and a successful coexistence between residents and the tourism industry. In addition, project initiation or policy formulation and adoption in tourism requires consensus among all those involved with tourism development at the local level (Lankford, 1994). In this sense, attitudes and involvement with local organizations or associations will also be included as variables that influence residents' attitudes toward tourism. To develop attributes and dimensions related to the perception of tourism impacts, literature has been reviewed to help in choosing those relevant to the area.

The second objective of the study is to develop a theoretical model to examine the direct and/or indirect causal effects of various factors on the local residents' perceptions of tourism development, to test and refine the proposed theoretical model using structural equation modeling, and to evaluate the strength and direction of these causal effects on the host community's support for the tourism industry. Answers to this objective are expected to benefit the planning and management process for rural tourism

destinations by presenting attributes that are perceived to be beneficial or detrimental to the area. The changes may lead residents to feelings of alienation from the community and a loss of an important dimension of community living. At the same time, it may lead to positive feelings of comfort or excitement. If tourism planning is to be successful, we must deal with the changes that will inevitably occur in community life and the surrounding environment (Williams, et al., 1995).

This study was also expected to provide information useful in supporting recommendations related to appropriate types of development for the area. This was done by comparing baseline data of how residents perceive current situations with their perceptions of future changes induced by tourism, and also by asking residents about desirable types of tourism development options for their community. With a clear understanding of these constructs, tourism planners, managers, the residents, and other stakeholders together would know which of the measures have the strongest effect on the

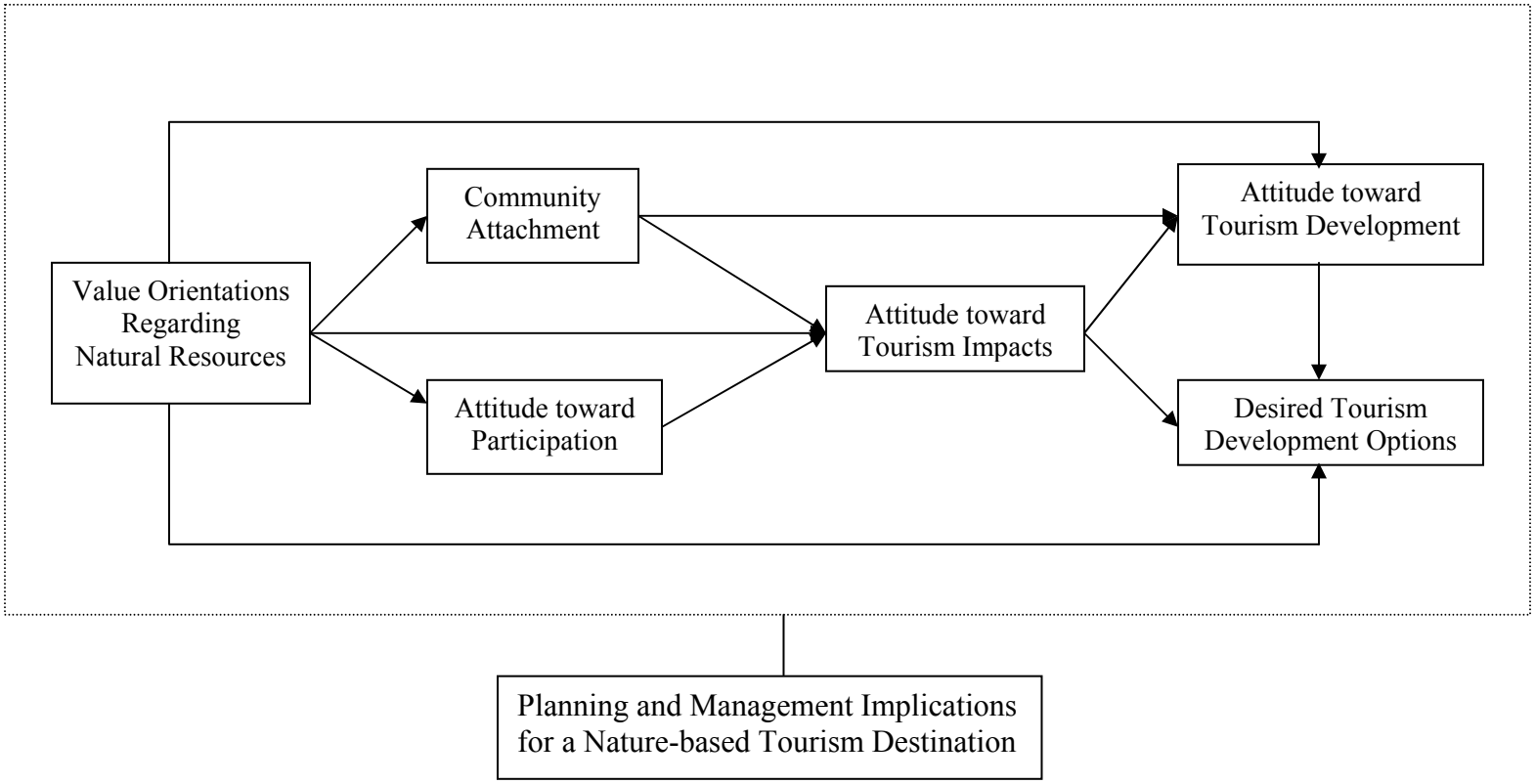

Fig 1. Conceptual Model of the Interested Constructs and Their Relationships.

overall well being of the communities in question. Figure 1 illustrates the conceptual model that shows interested constructs and their relationships

Definition of Terms

The following terms and operational definitions are clarified in this section and are used consistently throughout the study;

Attitude: An individual's subjective feeling of favor or dislike toward a person, object, behavior, issues, event, etc. (Ajzen, 1980).

Community Attachment: An individual's affect and commitment to a community where he/she resides. It is the unique emotional experiences and complex bonds of people with their community in variable intensity (Altman & Low, 1992).

Change: Any perceivable changes within the host community that were brought about during the course of development.

Growth: A process of expanding the opportunities economically, culturally, and socially for the locals to empower themselves by building the capacity to control their own

lives in order to create a more fulfilling existence, and improve the quality of life in the areas (Machlis & Field, 2000).

Social Capital: Social networks and the norms of trust and reciprocity that flourish through these networks (John F. Kennedy School of Government, 2003).

Gateway Community: A neighboring town or village, often rural, that is adjacent to a national park and provides much of the needed infrastructure and services for the park itself (Machlis & Field, 2000).

Sustainable Development: Development that meets the needs of the present without compromising the ability of future generations to meet their own needs (United Nations World Commission on the Environment and Development, 1987).

Value Orientation: The pattern of direction and intensity among a set of basic beliefs regarding an issue of interest (Fulton et al., 1996).

Potential Tourism Impacts (Tourism Induced Changes): The net changes (within the host community) that might be brought by the process or the influence of tourism development in a community.

Potential Tourism Development: Development of tourism that may occur in the future in a community.

Organization of the Dissertation

This dissertation consists of five chapters; introduction, review of related literature, research methods, results, and conclusions. The first chapter briefly states the introduction to the study and the background of the research. It also clarifies the research question/objectives and the terms used throughout the study. The second chapter describes in detail the nature of each construct that will be investigated throughout the study. It also conceptualizes a model that will be proposed for testing.

Chapter III describes the methods that will be utilized in pursuing this research. It discusses the study area, sample selection and data collection procedure, how the survey instrument was developed, and how the data was analyzed. The fourth chapter will report the results obtained from the empirical study. It is comprised of four steps including demographic profiling, descriptive analysis, validity and reliability testing with factor analysis, and finally the model fit testing using structural equation modeling approach. The result of hypotheses testing will be discussed in the final section of the chapter.

The final chapter includes a summary of the research conclusions, their theoretical and practical implications, and a discussion of the study's limitations and suggestions for future research.

CHAPTER II

REVIEW OF RELATED LITERATURE

This chapter will cover the backgrounds of the constructs, as well as clarify and justify major concepts that are used in this study. This chapter is divided into a number of sections including; 1) tourism planning systems, 2) changes and community development through tourism in rural areas, 3) place attachment linked with other concepts, 4) people's value orientations regarding natural resources and its application to the topic of this study, and 5) residents attitude toward impacts of tourism. This chapter will close by summarizing pertinent literature and proposing a series of research hypotheses and a model.

Limits of Acceptable Change as a Tourism Planning System

Since the late 1970s, a number of planning systems have been developed for practical use to implement tourism development in a sustainable manner. One of them is the concept of carrying capacity. The concept of carrying capacity was applied to recreation, and especially wilderness management, as environmental conditions deteriorated in the face of rapidly increasing levels of use (Wolters, 1991). Managers

hoped to be able to determine a visitor carrying capacity below which the natural environment and enjoyable experiences could be sustained.

Defined as the "threshold level of human activity an area can sustain without an unacceptable alteration in the physical environment and without an unacceptable decline in the quality of the experience by the visitors (Mathieson & Wall, 1982)," carrying capacity often has been cited as a tourism planning framework that deals with issues regarding acceptability and manageability of impacts (Wager, 1964).

Tourism carrying capacity is a specific type of carrying capacity and refers to the carrying capacity of the biophysical and social environment with respect to tourist activity and development (Wolters, 1991). It represents the maximum level of visitor use and related infrastructure that an area can accommodate. If exceeded, it is expected that the area's resources will be deteriorated, visitor satisfaction will be diminished, and adverse impacts upon the community, economy and culture of the area will arise (Wolters, 1991). The management focus is on determining the level of acceptable change in the resource use and in the recreation experience being provided by that resource, and on monitoring or controlling the changes that occur as a result of increasing recreational use so that unacceptable changes do not occur (Stankey et al., 1985). The main intent of this concept is to manage change to maintain a desired level of quality in an area's social, environmental and managerial characteristics.

However, the concept of carrying capacity failed to prove its usefulness in practice although it has been a very appealing concept (Lindberg, et al., 1997; Stankey & McCool, 1985). The reason is because there are different types of carrying capacities

and sometimes they can be in conflict, it is extremely difficult to measure and it cannot deal with the complexity and diversity of issues associated with tourism and recreation (McCool, 1994; McCool & Patterson, 2000; Stankey et al., 1990; Wight, 1994). Carrying capacity implies that specific resources can withstand measurable amounts of use beyond which degradation will occur. Unfortunately, carrying capacity exits only in relation to an evaluative criterion that reflects an objective or a desired condition. If the criterion is imprecise or unworkable, it will not be possible to specify a carrying capacity (Farrell & Runyan, 1991).

In addition, it attempts to limit environmental impacts by determining a numeric limit to the use of natural areas. However, humans are inevitably subjective and it is almost impossible for them to allow an objective numeric number as a limit to a certain type of impact (Shafer & Inglis, 2000). It also requires so many conditions such as values, judgments, assumptions, limits, and thresholds for its application. It holds out the promise of being objective and based on biophysical data, but in fact requires many subjective and judgmental decisions (Graefe, et al., 1984; Lindberg, et al., 1997; Shafer & Inglis, 2000; Stankey, 1991). For this reason, judgments can lead to widely varying capacity estimates depending on these assumptions and values. The researchers suggest instead that focusing on understanding what conditions are desired, what impacts are acceptable or unacceptable, and what actions will lead to accepted goals is more important (Lindberg et al., 1997; McCool & Patterson, 2000).

The concept of carrying capacity is based on the notion that there is a linear relationship between volume of use and associated impacts. As a result, it was assumed

that use was the main cause of problems and that limiting it would be the best solution. However, substantial studies indicate that there is only a weak relationship between these (Buckley, 1999; Graefe, 1987; Lindberg, et al., 1997; McCool, 1994; Shafer & Inglis, 2000; Stankey & McCool, 1985; Wall, 1997). This weak relationship between use level and impacts and difficulty in identifying carrying capacity before it has been exceeded have encouraged researchers to abandon the concept of carrying capacity and turn to alternative concepts such as Limits of Acceptable Change (LAC) (Cole & Stankey, 1997; Stankey & McCool, 1985).

The LAC framework builds on and goes beyond the concepts of carrying capacity to set measurable standards for managing recreation in natural areas (Cole & Stankey, 1997; Newsome, et al., 2002; Stankey, 1991). Instead of asking how much is too much and trying to link the level of use to environmental changes, the LAC approach asks desired conditions (and thus their acceptability), and how much change is acceptable. Acceptability is social phenomenon, and thus stakeholder involvement in the LAC process is essential (Shafer & Inglis, 2000). Stakeholders can provide judgments regarding the acceptability of impacts and in some instances can monitor to see if management is working.

The LAC framework was developed by USDA Forest Service researchers to address concerns regarding increasing levels of recreational use in wilderness areas and associated environmental consequences (Stankey, et al., 1985). Under the LAC framework, any human use of environment results in some change and deterioration to that environment and this change is inevitable. Even low levels of use will cause some

impact. Therefore, instead of focusing on the limits, the LAC system emphasizes the planning and management of impacts to ensure a quality experience (McCool & Stankey, 2004). It helps set the basis for allowing environmental change consistent with and acceptable to different types of recreational opportunities. By establishing specific indicators and standards related to the desired condition, it defines what levels of change can be permitted before management intervention is necessary (McCool & Stankey, 2004; Stankey, et al., 1985; Stankey, 1990).

As shown in table 1, a generic LAC process is described by six steps leading to standards and associated actions to achieve them (Cole & McCool, 1997, Cole & Stankey, 1997). Since LAC process is fundamentally a means of resolving conflict, the first step involves agreeing that two or more goals are in conflict, providing the context for the planning process. In the second step, it should be articulated that all goals must be compromised to some extent. LAC is unnecessary if there are no conflicting goals in the management or planning process, or if one goal cannot be compromised. The third step involves deciding which conflicting goal will ultimately constrain the other goal. A hierarchy among the goals should be set to accomplish this step. Writing indicators and standards, and monitoring the constraining goal follows next. According to the LAC researchers, it is necessary to write standards for the most important goals, and the indicators must be measurable and standards must be attainable. It is also important to develop monitoring protocols and field test them to make certain that indicators can be measured. Fifth step allows the ultimate constraining goal(s) to be compromised until the standard (limits of acceptable change) is reached. Standards define the maximum

amount of compromise that will be tolerated. The final step includes compromising the initial constraining goal so the ultimate constraining goal's minimally acceptable condition is never violated.

There are two crucial elements in LAC that can be applied in community-based tourism planning, including ecologically sustainable development and resident involvement. First, one of the positive outcomes of applying the LAC system was that it increased attention toward management of biophysical and social conditions of the area where it was applied. Sustainability is more than a biophysical concept and also includes socio-economic equity and quality of life in the host community. Maintaining increased attention toward management of biophysical and social conditions of the area

Table 1
Generic Limits of Acceptable Change (LAC) Process
(from Cole & Stankey, 1997)

Step 1.	Agree that two or more goals are in conflict
Step 2.	Establish that all goals must be compromised to some extent
Step 3.	Decide which conflicting goal(s) will ultimately constrain the other goal(s)
Step 4.	Write indicators and standards, as well as monitor the ultimately constraining goal(s)
Step 5.	Allow the ultimately constraining goal(s) to be compromised until the standard is reached
Step 6.	Compromise the other goal(s) so standards are never violated

where it was applied. Sustainability is more than a biophysical concept and also includes socio-economic equity and quality of life in the host community. Maintaining ecological integrity is one of many factors that are necessary for sustainable development (Rees, 1995). In this sense, the LAC framework can be applied not only in the managerial, but also in the planning stage before the actual development of community based tourism.

Second, in order to lead this planning framework as a successful process, residents who are affected the most by tourism development should be included in the planning and decision-making process. The process must be interactive to promote communication and mutual learning. It is highly desirable that the process be developed through a collaborative practice in which the resultant decisions reflect the input of numerous stakeholders. In fact, the LAC framework encourages innovative approaches to citizen participation in decision-making, and such involvement has been said to have increased the success rate of LAC applications (McCool & Cole, 1997).

Thus, many researchers have indicated that resident involvement is a fundamental aspect in community based tourism development (Gunn, 1994; Jamal & Getz, 1995; Wall, 1997). It may be best to create a consensus about proposed courses of action among those who will be affected by it and those who have veto power over implementation. This may help balance the power between residents and the government, local elites or outside investors (Thompson, et al., 1995; Wight, 1994). By observing these elements, the LAC system addresses the concerns of sustainability by ensuring what is to be sustained and how this will be accomplished.

This study will incorporate these two elements of sustainability and local involvement, and steps from the LAC system as a way to operationalize sustainability in the study area. The initial thought was that as different tourists seek different experiences in a destination and the relationship between the amount of use and experience quality varies with the experience being sought, so too, residents will seek different experiences in their livelihood and their experienced quality will vary. This study will examine the residents' concern for tourism development, evaluate its desirability, and identify alternatives if needed.

Specifically, the goal of this study involves two conflicting aspects; to maintain healthy environment and residents' experience quality. That is, conflicting goals of preservation of current natural conditions and development of the tourism industry have to be compromised to some extent to optimize these goals. Since this study is grounded in the concept of sustainability, it will be assumed that development and expansion would ultimately detract from the environmental quality of the area. Accordingly, the study has identified a number of indicators and development options appropriate for the area, and has examined resident perceptions of the desirability of certain types of tourism impacts and further expansion of tourism development. As one of the tourism stakeholders in the area, residents should be able to provide their opinions and judgments regarding development and growth activities. On the whole, this study will help set the bases for the sound development and management of the rural area by suggesting desirable conditions or appropriate types of development for the area.

Change through Community Tourism Development

Rural regions of America are changing in significant ways. Restructuring processes have been emergent since at least the 1970s, and rural areas have been experiencing significant economic, social, and political changes (Hall, et al., 2003). They are now at the center of interest and debate, and many of the processes of change stem from broader and more general socio-economic and environmental processes.

Physical settings change as a function of continued use and as a place experiences through a changing social system, which altered human relationships and values (Ittleson, et al., 1974). Rural regions and communities are experiencing regional and national economic shifts, since they are now less isolated than they used to be due to technological innovations and mobilization. In addition, many extraction-based economies are being replaced by more service-oriented economies in recent rural America. As an answer to these growth issues, many rural places now propose tourism as a community redevelopment strategy.

Rural areas of America are increasingly becoming playgrounds for urban residents. The natural and cultural features of the rural landscape are valued highly, and tourism and recreation are becoming big business. However, it was only a few decades ago that these industries were recognized as economic development potentials of rural areas. In recent years, rural tourism has attracted a steadily increasing level of research attention (Sorensen & Nilsson, 2003) because tourism demand for rural areas is growing and rural tourism has arrived on the political-economic agenda (Fleischer & Pizam,

1997; Hummelbrunner & Miglbauer, 1994; Lane, 1994) hoping that it could ease the negative consequences of a decline in traditional rural economy (Butler, et al., 1998; Fleischer & Pizam, 1997; Gannon, 1994; Hjalager, 1996; Lane, 1994; Luloff, et al., 1994; Sharpley & Sharpley, 1997). Rural tourism and recreation have become an important part of opportunities holding the promise of economic, social, cultural and environmental enhancement (Hall, et al., 2003).

The main reason that tourism is favored in rural areas is because of the claims that it increases economic opportunity, distributes benefits without incurring significant costs, is thought to be environmentally sensitive, and enhances local history and culture. These claims can be especially compelling for rural communities facing uncertain futures, particularly those that have a boom-and-bust history of natural resource dependence or seasonal economies (Stokowski, 1996).

Nonetheless, a number of communities have implemented successful initiatives that deal with growth in a manner that protects the community's identity while stimulating a healthy economy and conserving/protecting natural and historic areas. They have proved that economic prosperity does not have to rob them of their own character, degrade their natural surroundings, or transform them into tourist traps (Howe, et al., 1997). These communities planned ahead so that growth meets local wishes, contributing to a sustainable economy and enhancing a community's quality of life. According to Howe, McMahon, and Propst (1997), the communities that preserve their character and natural values consistently outperform the economies of those that don't.

Rural tourism development attracted increasing interest in the 1990s and interest in it grew as an evolving phenomenon (Hall, et al., 2003). It is widely perceived as being economically and socially beneficial to local areas through the income and infrastructural development it may bring particularly to marginal and less economically developed regions. It can provide relatively low capital economic growth for locally owned business and offer a potential alternative both to traditional rural activities and to rural workers themselves (Long & Lane, 2000). It can also stimulate in-migration and attract retirees and urban based entrepreneurs to satisfy their desire to live in remote and natural settings (Machlis & Field, 2000). These social and economic changes can contribute to regional environmental and ecosystem-level changes in the rural landscape.

However, many rural communities are facing problems associated with rapid growth. While an economic revitalization of rural areas is often sought, few rural residents would wish to change dramatically the physical characteristics of their landscapes by encouraging the siting of noticeable constructions such as gambling casinos or amusement parks.

The challenges of rural restructuring, and the potential threats to rural environment and the dynamic social composition of many rural areas require an understanding and management. It should be integrated into the dynamic social, economic, political, cultural, psychological and environmental processes as a whole before any action is initiated (Hall, et al., 2003).

Related Theories on Community Change and Development

Long and Lane (2000) argue that rural tourism is entering a more complex phase of expansion, differentiation, consolidation and understanding, and that a number of implications regarding its development and management exist. As a consequence of increasing activity and competition, conflicts will intensify in various aspects of rural life. Also, heritage, and the contested power relations behind its reproduction, promotion, and interpretation will consolidate its position as an anchor of rural tourism. Although considerable attention has been given to the support and enhancement of rural tourism initiatives within the wider context of rural development, local and government views and industry perceptions may differ or even conflict (Hall, et al., 2003; Hjalager, 1996; Nitsch & der Staaten, 1995).

There are a number of theories in various fields such as geography, economics, politics, and sociology that explain attitudes of different groups of people towards community change. These theories help us understand how persons, communities, and organizations respond to change, how they perceive impact information, and the relationships between actors and overall residents (Rickson, et al., 1990). A specific field of research is especially pertinent to the purpose of this study: community development studies, especially research on public participation.

Researchers on community theory state that impacts of rapid economic growth have been the principal subjects of social and environmental assessment (Rickson, et al., 1990). According to them, growth is generated by elites seeking to expand job opportunities, home building, and industrial and commercial investment. In this process,

however, socioeconomic costs and benefits of growth programs are seldom, if ever, perceived to be distributed equally across groups involved (Gibson, et al., 1988). Real or perceived inequities are inevitable dimensions and engender controversy and local conflict. Since community development initiatives invariably lead to a degree of conflict between stakeholders and the residents, the key focus of the theory is on how conflict affects support and decision-making. The process includes the identification of different interest groups, the distributional effects of projects and programs on community social structure, and possible strategies to alleviate different concerns and tensions either among community groups or across communities.

Alternatively, theory and research on social capital are concerned with the capacity of locals to mobilize and respond effectively and creatively to outside pressures from industry and government and internally, the ability to respond and influence decisions by local elites. Thus, they involve local residents, and recruit scientists and other professionals to establish other scenarios and alternatives. Because of increased involvement by diverse community groups, knowledge by groups of development alternatives increases. As general public knowledge increases, local elites are forced to consider a broad rather than narrow array of alternatives, thereby increasing the rational nature of decision-making process (Rickson, et al., 1990).

On the other hand, social power researchers claim that power is the ability of a person or group to know about, mobilize and then influence decision making, that is, to make a difference in something important to them. The higher the socioeconomic status of a person, the more likely they are to participate or belong to implement those plans,

and to the distribution across groups of social and environmental benefits and consequences (Nowak, et al., 1982). Ironically, overt conflict in politically dominated communities tends to be low because individuals and groups are neither mobilized to express interests, opposition or grievances, nor do they have access to information that might stimulate interest and mobilization.

In this sense, there is a thread of connection that links community researches on social power, social capital, and public participation. The literature finds that 1) as conflicting issues increase in an area, up to a point, people and groups learn more about the issues and decision making or policy alternatives, and in the process, 2) public participation intensifies as awareness and participation by local elites as well as low and middle income people increases (Nowak, et al., 1982). The kind of conflict we refer to is integrative and generally stimulates learning and public involvement by persons and groups. Because there is more information, the chances of making decisions which are politically and scientifically acceptable are enhanced. Decisions will be more rational because there will be both more and different kinds of information about social, economic, and environmental impacts of development plans. Communities are able to have a basis for rational change when there is a proper distribution of informational power so that community or political action can be altered in line with research findings and accumulated knowledge.

In 1976, Molotch (1976) presented growth machine theory as a way to analyze urban growth politics and development in the U.S. Among the numerous theories of change and politics, the author finds the growth machine model useful in explaining the

process of regional change and the way it applies to a tourism development context in rural America. Molotch (1976) claimed that growth machines were the distinct pro-growth social actors that drive the shape of a community. These groups, mainly made up of local entrepreneurs, have a vision of the place's future that conforms to their interests, as well as having the influence needed to realize the vision (Logan & Molotch, 1987).

In 1987, Logan and Molotch added to the theory the concepts of "use value" and "exchange value", the interests of residents (who make their lives in places) and the interests of entrepreneurs (who regard places as commodities). Local or outside entrepreneurs have a systematic favoring of exchange values over use values in community development. Since for them "the space that we use everyday is not only a human necessity (use value) but also a commodity that generates revenues (exchange value)," the theory holds that this group of people thinks exchange value is more important to pursue than the local community's use value. Thus, when confronted with decisions, they will try to maximize exchange value often at the expense of use value.

In contrast, what is often most important to the local residents is the use value of their properties such as land or buildings. Use values are rooted in the neighborhood as lived place. It is here that psychological attachment to a place is the strongest. Threats to neighborhood attachment and use values come from various kinds of land use and changes in the process (Logan & Molotch, 1987).

Being interested in the material consequences of growth, the pro-growth coalitions want to ensure that the residents are receptive of changes in their surroundings.

With this in mind, the growth machine strives to generate the community "we feeling" that Molotch viewed to be essential for uniting locals around the goal of growth. Thus, growth coalitions not only strive to create the material preconditions for growth, but also stress attachment with place and convince people of the importance of growth to their well being.

The differences in value orientations can cause conflict between growth coalitions and local residents. According to Logan and Molotch (1987), the development of places is determined by the push by actors to improve the exchange value of local land and property, and the efforts made by residents to preserve and enhance use values in particular places. The conflict is seen to arise when the actions of those who see place as little more than a commodity to sell threaten the ability of residents to use place to make a life for them (Jonas & Wilson, 1999). This is because changes in the environment are required in order to establish the preconditions for economic growth and to pursue as much exchange value of the land as possible.

These changes can negatively affect residential neighborhoods and the local quality of life. Growth almost always brings with it the problems of increased pollution, traffic congestion, overtaxing of natural amenities, change in local traditions and norms, and so on. Research also suggests that growth schemes (such as construction of infrastructure, expansion of human made structures, etc.) impose more costs and inconveniences on local residents and engender opposition. The essential point remains that growth is certainly less of a financial advantage to the taxpayer than is conventionally depicted, and that most people value small places more than large (Hoch,

1972; Molotch, 1976). Under many circumstances growth is seen as a liability financially and in quality of life for the majority of local residents. Thus, local growth is seen as a transfer of quality of life and wealth from the local general public to a certain segment of the local elite. This opposition can be sufficient to slow growth down or prevent it altogether. Thus, the tension and conflict between use values and exchange values, between residents and local entrepreneurs, determines the shape of the city.

According to Molotch (1976), local opposition to the pro-growth actors is more likely to occur and to succeed by "leisured and sophisticated middle class." Logan and Molotch (1987) also claim that it is only white, middle class neighborhoods that have the capacity to resist development, poorer and minority neighborhoods apparently being rendered impotent in the decision making process.

Because of the increasing autonomy of neighborhoods and the strong psychological attachment between residents and their community, local residents should play the most important role in the community planning process. It has been also proven that it is the growing power of the local residents that leads growth to be sustainable (Rast, 1999).

Local Involvement in Community Development

Development has had several meanings including economic growth, structural change, industrialization, self-actualization and individual, national, regional, and

cultural self-reliance. These meanings involve structural transformation and a strategy that implies political, cultural, social, environmental and economic changes (Hettne, 1990). In a community context, development is concerned with the process of change and how people affect and are affected by change (Christenson, 1982). Community development means building the capacity of people to work collectively in addressing their common interests in the local society (Maser, 1997). Community development is thus, a process of expanding the opportunities economically, culturally, and socially for the locals to empower themselves by increasing their ability to control their own lives in order to create a more fulfilling existence, and improve the quality of life in the area (Machlis & Field, 2000).

However, Putnam (Putnam, 1995; Putnam, 1996; Putnam, 2000) found that although personal, organizational, and institutional relationships play an important role in community development and problem solving, there was a decline in social interactions over the last three decades. In the book "Bowling Alone," he reports on how people have become increasingly disconnected from family, friends, neighbors, and the social structure, which may be a crucial resource for community growth. He warns that American's social capital has drastically decreased, impoverishing their lives and communities. People become less neighborly, and the community's social life gives way to family isolation and community stagnation.

Social capital refers to all human relationships, social norms and networks that enable collective actions, and the inclinations that arise from these networks to do things for each other more effectively to pursue shared objectives (Briggs, 1997,;DeGraaf &

Jordan, 2003; Saguaro Seminar, 2005). It is about active and social choices that connect people. It encompasses a wide variety of social elements such as trust, reciprocity, participation, information, and cooperation associated with social networks. According to Potapchuk et al. (1997), the network of civic engagement fosters sturdy norms of generalized reciprocity and encourages the emergence of social trust. As people connect with one another at many levels, they are in the process of building the social capital needed to increase the quality of life of their community (DeGraaf & Jordan, 2003). Ways of obtaining social capital in a community is through people's participation in civic affairs, involvement with organizations, positive and active relationships with other community members, and by giving and volunteering (John F. Kennedy School of Government, 2003).

According to the World Bank Group (2004), increasing evidence shows that social cohesion - social capital - is critical for sustainable human and economic development. Social capital is important because communities with higher levels of social capital are likely to have higher level of perceived quality of life, better performing governmental institutions, faster economic growth, and less crime and violence (DeGraaf & Jordan, 2003, Saguaro Seminar, 2005). And the people living in these communities are likely to be happier and healthier. Putnam and Goss (2002) also state that social capital will be directed toward the general improvement of community well-being. In addition, it is easier to mobilize people to tackle problems of public concern and arrange things that benefit the group as a whole in places with greater social connectedness.

The general goal of the community development is to conserve and restore local resources by helping local communities develop their capacity to fulfill human needs and maintain ecological integrity. It involves a reconciliation of economics and environment, and it is a form of economic development that produces an environmental return (Bryant, 1997). This will work best based on the belief that through collective action and decision-making process, involved stakeholders can successfully resolve their issues as well as organize and implement change. The locals become capable of influencing decisions that affect their lives through active participation in the process. It is a process designated to create conditions of economic and social progress for the whole community with its active participation (Maser, 1997).

Nozick (1993) listed principles of sound community development focused on building community capacity. It includes 1) economic self-reliance, 2) ecological sustainability, 3) community control, 4) meeting individual needs, and 5) building a community culture. As tourism continues to expand throughout the world in a wide variety of contexts, community change is inevitable. Recent arguments suggest that local people should have a greater say in that change process (Telfer, 2003). Placing the process of change within the realm of sustainability directs local communities toward a better understanding of the effects of individual and collective participation within the community itself and its surrounding landscape (Maser, 1997).

Local Participation and Collaborative Planning Strategy

Statistics show that increasing numbers of Americans visit national parks, national wildlife refuges, and other public lands and natural areas (Machlis & Field, 2000). For the communities around them, the result is change. Unregulated tourism development simply provides attractions, facilities, and services that the tourist market demands. It is lacking in long-term vision and thus usually results in environmental degradation and loss of sociocultural integrity of destination areas even though it may bring in short-term economic benefits (Inskeep, 1991). This unplanned form of tourism development is still practiced and promoted in many areas in a belief that economic growth, by people who will gain financially, should always be a primary goal for development (Getz, 1986).

However, this trend appears to be changing throughout the world, and there seems to be a growing movement toward greater local participation in management and planning practices (Bramwell & Sharman, 1999; Koontz, 2003). The new trend has been that planners consider more sustainable forms of tourism and they are beginning to realize that the industry's impacts are more vivid in destination communities and that destination residents are an essential part of the tourism product (Simmons, 1994).

This movement is said to promise both better outcomes and better processes (Koontz, 2003; Simmons, 1994). Rather than relying on government officials, this approach calls for empowering a community of stakeholders to contribute meaningfully, which can yield positive changes in both environmental and social conditions (Koontz, 2003). The researchers confirm that communities can in fact manage and plan growth

and development so that they enhance rather than detract from local values and quality of life. These studies showed that the communities studied are taking steps to see that development meets local aspirations, contributing to a healthy economy, and respecting the natural and cultural values of the surrounding landscape (Hall, et al., 2003). Simply, they claim that better decisions can be made when decision makers have more information and a deeper understanding of the interests of all those involved, allowing for discussion or exploring new ideas.

In recent years, more collaboration is occurring between the community leaders, citizens and project managers. Increasing local adaptability/stability and improving resident participation in decision-making processes have become prerequisites for successful sustainable development in a community. Successful communities actively involve a broad cross section of residents in determining and planning for the future. To create sustainable economies and environment, communities try to develop long-term strategies for the viable use of their own human and social resources, as well as environmental resources (Machlis & Field, 2000).

In addition to local participation, Howe, McMahon, and Propst (1997) claim that communities' distinctive assets should also be embraced. The communities need to capitalize on their distinctive assets such as their architecture, history, and natural surroundings, rather than trying to adopt a new and different identity (Howe, et al., 1997). The authors argue that communities seeking to develop a vital local economy must ensure that growth and economic development do not come at the expense of their unique identity, quality of life, economic diversity, and fiscal well-being. Rather, the

objectives should be set at preserving its natural areas and open space, supporting locally owned businesses, encouraging traditional vocations, retaining vibrant downtowns with a sense of character and tradition, and providing ample opportunity for outdoor recreation and other leisure activities. The most important objective is to ensure that growth does not jeopardize what residents value (Howe, et al., 1997).

In this context, Timothy and Tosun (2003) suggested a PIC planning approach in destination communities; participatory planning, incremental growth (opposed to traditional rapid development), and collaborative/cooperative planning. Public involvement and participation are integral elements of successful initiatives for development. Collaborative planning aims to shift decision making from government officials to citizens and stakeholders. Decisions that are reached collaboratively can result in high-quality, more durable outcomes that are easier to implement, make more efficient and effective use of available resources, potentially avoid the cost of resolving adversarial conflicts among stakeholders in the long term, and better serve the public. Research has also shown that collaborative processes often create a long term "network dynamic" of shared learning, improved working relationships, and better joint problem solving ability in the future (Bramwell & Sharman, 1999; Center for Collaborative Policy, 2005; Cortner & Moote, 1999; Healy, 1998). A collaborative work can help avoid problems by encouraging strong, creative, high quality, and responsive communication among the stakeholders.

The PIC planning approach is paramount in the tourism planning process if the goals of sustainability are to be met in communities where the tourist experience takes

place. The researchers argue that sustainability of tourism industry and the sociocultural, physical and economic environments of destination communities will be more likely through this approach (Timothy & Tosun, 2003).

Conclusion

According to Lindberg and Johnson (1997), local attitudes toward development are a partial function of perceived power of residents relative to that of the industry. If the local residents feel that they are able to control the direction and extent of the tourism development, they are more likely to demonstrate interests and more positive perceptions toward tourism and its development actions. Cooke (1982) states that local control and participation in decision making are keys to achieving socially appropriate tourism development. Likewise, Lankford and Howard (1994) and Madrigal (1995) claim that attitudes toward tourism are related to the ability of the local residents to affect decisions on future tourism development (Lai, 2000).

There are many other strategies for successful community change including social actions led by disadvantaged population for more resources and better treatment, popular education, and local services development through local participation in determining goals and taking action. Recently, rural development strategies have included multicommunity efforts at collaboration that bring together several communities to gain economies of scale in providing services to residents. Multicommunity collaboration may offer benefits to rural communities that lack

resources, but there remain several social and political obstacles to implementing these strategies in most communities (Machlis & Field, 2000). Most of all, the strategy that should be selected is the one that has the greatest potential to empower the community in question (Checkoway, 1995).

Place Attachment

For decades, researchers from various disciplines have explored emotional relationships of people and place such as sense of place (Hay, 1998; Relph, 1976; Tuan, 1980), place attachment (Altman & Low, 1992; Manzo, 2003), place dependence (Stokols & Shumaker, 1981), place identity (Proshanky, 1978; Proshanky, et al., 1983), place meaning (smaldone, et al., 2005; Williams & Patterson, 1996), and rootedness (Hummon, 1992). While all of these concepts address people's relationships to places, the exact connection between them is unclear. Some argue that sense of place, place dependence and place identity are forms of place attachment (Williams, et al., 1992), while others contend that sense of place is broader than place attachment (Eisenhauer, et al., 2000; Hay, 1998). Some labeled these constructs differently such as emotional/symbolic (place identity) and functional (place dependence) place attachment (Schreyer, et al., 1981). Researchers agree that the concept of place attachment is complex, involving numerous intertwined constructs that evade simple definitions and explanations.

Yet, all of these terms share a focus on the reciprocal nature of the relationship between people and places (Altman & Low, 1992), and they emphasize that the way a person views and responds to a place is dependent not only on the actual place itself, but also on the individual's ongoing and evolving personal and social relationships with that place (Smaldone, et al., 2005).

Spaces and places can evoke emotional responses. Workplaces, neighborhoods, and cities can induce hate, love, fear, desire, and other affective states, and these feelings may color the individual's perception of places (Ittleson, et al., 1974). Individuals who like their neighborhoods might be attached to it as long as they perceive them as good places to live (Mesch & Manor, 1998). People construct images of places in different ways. The meaning attributed to a place is not inherent in the properties of nature, but is interpreted and constructed by humans in particular contexts and situations. The way individuals construct such images may be related to their own personality, their life history, value systems, or their interactions with the places (Kaltenborn, 1998).

A number of authors across various disciplines have been concerned with how people socially construct places, how they develop place meanings, and how they become attached to places (Altman & Low, 1992; Brandenburg & Carroll, 1995; Entrikin, 1994; Proshansky, et al, 1983). Research on these tries to investigate interpersonal relationship, people's affective bonds with place or differences in behavioral bonds.

According to Altman and Low (1992), attachment theory describes and explains people's enduring patterns of relationships with objects, people, and place. When the

object is a place, these affective cognitions reflect an individual's attachment to place (McMillan & Chavis, 1986,;Proshansky, 1978). McMillan and Chavis (1986) define attachment to community as a "feeling of belonging to and being integrated into a community, of having mutual influence, of having needs met as well as sharing an emotional connection with other community members" (McMillan & Chavis, 1986).

As such, place attachment refers primarily to affective, but also cognitive and behavioral bonds between individuals or groups and one or several places (Altman & Low, 1992). It has been proposed that these bonds are developed following long-term involvement, because it takes time to get to know a place (Tuan, 1977). The close relationship between a person and his/her surroundings often leads to the development of an attachment to those places. Thus, the study of psychological bonds with tangible surroundings has been dominated by an interest in the home environment.

Acknowledging that integration of social principles and social science need to be integrated for a more holistic approach in management and development process, this concept has been employed to a number of aspects of recreation and tourism including recreation conflict (Watson, et al., 1991) and management preferences (Warzecha & Lime, 2001; Williams, et al., 1992).

The affection which people have for a place is often unconscious. It grows on them and becomes part of their being, but may remain unspoken until a threat to the place arises, then people often react strongly in defence of the existing conditions. The affection toward place that prompts resistance to change is sometimes associated with base instincts, such as protection of privilege or of property values. Holahan has

asserted that changes in physical environment lead to the erosion of social bonds (Holahan, 1978). The counterpoint to this is that those who do not have privilege or valuable property, or are otherwise disadvantaged may hold a positive desire for change. What is perceived as good by locals may strike the outside observer as doing damage to local distinctiveness (Clifford & King, 1993).

Community attachment is indeed a significant variable influencing the attitudes of residents toward community change. Place attachment is profoundly disrupted when environments change rapidly (Brown, et al., 2003; Vaske & Kobrin, 2001; Vorkinn & Riese, 2001; Williams, et al., 1992). These studies show that those who are attached to an area may be more sensitive to site impacts and they may be less willing to be affected by those changes (Kaltenborn, 1998). Because place attachment has proven to influence both the perception of and response to actual changes in the environment, it could be expected that the values reflected through place attachment also would influence the attitudes toward specific proposed changes (Vorkinn & Riese, 2001).

It is also likely that proposed environmental disruptions may serve the same functions. That is, the more attached residents felt to the community, the more interest they will have in getting involved in community change efforts and the more favorably they will regard the ability of the community to deal with change (Ayers & Potter, 1980, Smaldone, et al., 2005). According to Mesch (1996) and Mesch and Manor (1998), the higher an individual's neighborhood attachment, the more likely is he/she to avoid attempts to change the social and physical nature of the area (Mesch, 1996; Mesch & Manor, 1998; Vorkinn & Riese, 2001). It was also suggested that people with higher

level of community attachment tends to dislike drastic changes to their living area, which makes them to oppose rapid growth policies (Molotch, 1976; Zhang & Fang, 2004). To avoid this situation, local entrepreneurs try to create community "we feeling" and community spirit among the local residents for them to be receptive of development induced changes. This is thought to be essential for uniting locals around the goal of growth.

The affective aspect of place-people relationship also leads to behavioral commitment. Supporting Altman and Low (1992)'s claim that people are attached to social relationships, a number of studies have shown that local social involvement is the most consistent and significant source of attachment to place, and vice versa (St. John, et al., 1986). When a person is involved in public affairs and is participating in community organizations, he/she becomes more attached to a place, especially to his/her residence. Vaske and Kobrin's study (2001) showed that a number of behavioral indicators such as talking with others about environmental issues or sorting recyclable trash reflected environmentally responsible construct with high place attachment level.

The concept of place attachment not only includes social bonding aspects, but also the individual's subjective and objective perceptions developed with the built and natural environment (Bow & Buys, 2003; Mesch & Manor, 1998; St. John, et al., 1986; Williams, et al., 1995). According to Mesch and Manor (1998), a positive perception of the open space and built environment is a central component in the evaluation of the neighborhood and was found to be related to feelings of neighborhood attachment (Mesch & Manor, 1998; St. John, et al., 1986).

A study by Williams et al. (1995) also suggests that encounters with the natural environment nourish place attachment, that the preference for nature is turned into a positive emotional feeling toward that place. They concluded that residents' psychological attachment to a place and their environmental perception might influence differences in their attitudes toward development and change. Research exploring environmental preference also indicates that most people tend to prefer the natural over built landscapes (Kaplan & Kaplan, 1989; Kaplan, 2001). Furthermore, those who prefer natural elements have been shown to dislike the elements of change (Kaplan & Kaplan, 1989). These researchers assume that humans have an in-born tendency to attach to nature elements, and when their physical surroundings change, they are likely to experience distractions and stress.

The strength of the residents' attachment to the natural environment was also clearly demonstrated when the participants expressed their concerns about environmental problems and showed environmental conflicts among different groups of people involved within their local area (Bow & Buys, 2003; Williams & Patterson, 1996). In evaluating place attachment in relation to environmental problems through overdevelopment and deforestation, those who demonstrated higher levels of place attachment expressed their concern about natural pristine areas not being properly maintained.

In addition, a study by Kaltenborn (1998) explained the concept of sense of place as one direction in the place attachment literature and demonstrated that sense of place is most useful for predicting reactions to impacts. He concluded that the type and degree

of affection toward a place could be an indicator of whom one can count on for support in environmental rehabilitation and also an indicator of who suffers the most from impacts, and how they are affected (Kaltenborn, 1998; Smaldone, et al., 2005).

The emotional attachments to natural places are especially important for ecosystem management strategies and other efforts to incorporate considerations of social factors into the management of the environment (Eisenhauer, et al., 2000). It is also important because it generates identification with place and fosters social and political involvement in the preservation of the physical and social features that characterize a place (Mesch & Manor, 1998). This attachment with places can be a source of heightened levels of concerns about management practices, and better understanding of it may help managers anticipate and explain public reactions to management actions regarding developmental projects (Williams, et al., 1992).

Measuring Place Attachment

Place attachment has been gaining considerable attention in resource management and outdoor recreation research for more than two decades. Most of the researchers examined the bonds that were developed gradually through long residence or time spent in a defined area. They used various indicators to measure people's attachment to a place. Majority of researchers developed place attachment scales by querying residents about their feelings about moving away from a place and whether

they feel at home in the area (Jorgensen & Stedman, 2001, Williams & Rogenbuck, 1989; Williams & Vaske, 2003).

These researchers found that the construct of place attachment is mostly comprised of two dimensions; place identity and place dependence, while some include social bonding aspect (Kyle, et al., 2005). According to Williams and Roggenbuck (1989), and Kyle et al. (2005), place identity (emotional/symbolic) is a cognitive connection between the self and the physical environment. It refers to 'those dimensions of the self that define the individual's personal identity in relation to the physical environment by means of a complex pattern of conscious and unconscious ideas, beliefs, preferences, feelings, values, goals and behavioral tendencies and skills relevant to this environment (Proshansky, 1978).'

On the other hand, place dependence reflects the 'functional meaning of a place as the tendency to see the environment as a collection of attributes that permit the pursuit of a focal activity (Proshansky, 1978).' It concerns how well a setting serves goal achievement given an existing range of alternatives. This conceptualization of place attachment has been by research demonstrating that the scale comprising of two dimensions of place identity and place dependence is a valid and reliable measure of the place attachment construct across several settings.

Some measured the construct by evaluating residents' level of participation in local organizations and by their efforts to keep informed about community affairs (Stokowski, 1996). Others measured with indicators such as length of residence (Allen, et al., 1988; Davis, et al., 1988; Lankford, 1994; Liu & Var, 1986; McCool & Martin,

1994; Um & Crompton, 1987), birth place and heritage (Um & Crompton, 1990), home ownership, locally based social relationships, age (Goudy, 1990; Mesch & Manor, 1998), and so on.

Kasarda and Janowitz (1974) integrated many of these variables in a study and found out that community attachment has three dimensions; an interpersonal, a participation, and a sentiments dimensions. The interpersonal dimension looks at the extensiveness of ties in the local community. Participation dimension looks at respondents' involvement in formal community organizations. The sentiments dimension captures positive feelings toward the local community (Kasarda & Janowitz, 1974; Beggs, et al., 1996). In this model, the key variables (called systematic factors) explaining the strength of community attachment are characteristics of residents such as length of residence, social position, and age. On the other hand, Gerson, Stueve, and Fischer (1977) claimed that attachment is made up of several independent dimensions that allow four forms of attachment to be defined. Three of four dimensions represent types of social attachment, and were named as institutional ties, social activity, and local intimates. A fourth dimension, affective attachment, was measured by satisfaction with the neighborhood and the desire for residential stability. In both models, people's affection toward a place, their involvement with a social organization, and interpersonal relationship played a key role in shaping their attachment to that place.

Another indicator of people's place attachment often referred is length of residence. The development of sentiments toward place is a temporal process. Many researchers have found that the longer an individual lives in the neighborhood, the more

likely is he/she to develop friendships, social relations and involvement with the locale that have been found to have a positive affect on attachment (Beggs, et al., 1996; Mesch & Manor, 1998). Such attachment may be due to saturating the community environment with memories of significant life experiences, which seems to promote local social ties. Local social involvements and participation in community affairs, in fact, proved to be the most consistent and significant source of sentimental ties to local places (Goudy, 1982; Mesch & Manor, 1998; St. John, et al., 1986).

In order to create an attachment to place, there is a need for a long and deep experience of a place and preferably involvement with the place. Those people with local involvements, such as serving as a volunteer in a local organization, are most likely to form sentimental bonds with place (Goudy, 1982, Tuan, 1977). In relation with attitude toward tourism development, they found that the longer people live in a community, the more they become sensitive to the negative impacts of tourism development on their way of life, thus form negative attitudes towards further tourism development (Allen, et al., 1988; Lankford, 1994; Liu & Var, 1986).

Birthplace and heritage can also influence attitudes toward tourism. Among many researchers, Um and Crompton (1987) defined attachment level in terms of years of residence, birthplace, and heritage (judged by nativity to the place). Their findings indicate that the greater the level of attachment, the less positively residents perceive the impacts of tourism on their community. Finally, several researchers in the environmental psychology area and wilderness research have also found that subjective fear of crime has been shown to reduce local attachment modestly (Altman & Low,

1992), as it relates to dissatisfaction with the physical quality of the neighborhood environment (St. John, et al., 1986).

Conclusion

People's attachment to their place of residence has been an underlying factor in many tourism based controversies and it is expected to draw more attention in the future. With social and environmental values becoming increasingly important in planning and management practices in light of philosophies that are shifting away from consumptive uses toward more sustainable ones, it is more likely that understanding of place attachment and its impact on residents' attitude toward tourism has the potential to offer managers and developers an important tool in planning paradigm.

A community is a group of people with similar interests living under and exerting some influence over the same government in a shared locality (Maser, 1997). The nature and strength of attachment to a community may be an important determinant of how residents perceive potential impacts of a growing tourism industry, and may be important determinants of a successful coexistence between residents and the tourism industry (McCool & Martin, 1994). Thus, understanding the group's sense of attachment to community, and how it may be affected is a critical consideration in the tourism planning process. Building a better understanding of it could be a step toward a more integrated approach to tourism management. Therefore, the relationship between

residents' attachment level and attitudes toward tourism development needs to be investigated.

Indeed, it is the values that residents attach to places that are often at the heart of tourism development conflicts. For example, controversy surrounding Brewster County, Texas centers on tourism development and resource conservation. Although integrating place attachment into the planning process will not eliminate resource-based controversies, it may provide a way to discover commonalities that exist between and among opposing stakeholders. Therefore, it is important that managers and planners use place attachment measures when evaluating the public's attitudes and potential responses to impacts in specific locations such as Big Bend area.

Value Orientation Regarding Natural Environment

Western cultures have been sharing a long tradition of an anthropocentric value orientation and utilitarian view of natural environment. Humans were viewed as superior and they viewed the nature as limitless. Part of this view was due to the fact that there were abundant natural resources and that people felt no need to conserve the nature during that time.

With a sudden awareness of environmental problems, however, it was recognized that nature is a part of ecosystem and that humans are not immune to ecological constraints. Environmental issues began to achieve a prominent position on the

country's polity agenda in the 1970s, and gradually, environmental problems began to catch attentions from the public. As changes in the values and beliefs emerged, new concept of an ecological paradigm shift upsurged. Utilitarian views are replaced with a more environmental orientation (Brown & Harris, 1992; Dunlap & Van Liere, 1978; Eckersley, 1992; Stern, et al., 1995). Because these trends are likely to continue in the future, it is important for managers and policy makers to understand how people's value orientations influence attitudes of residents and support/opposition for natural resource development.

Dunlap and Van Liere (1978) asserted that a new worldview, New Environmental Paradigm (NEP), was emerging that differed dramatically from the traditional one. The new view emphasizes limits to growth, steady-state economy, and natural resource protection (Dunlap & Van Liere, 1978). They thought that changes in values and beliefs concerning environmental issues made it necessary to develop a scale, and designed a scale to measure the extent to which people would accept the ideas of the NEP (Dunlap, et al., 2000, Table 2).

These items primarily tap into 'primitive beliefs about the nature of the earth and humanity's relationship with it (Dunlap, et al., 2000).' According to Rokeach (1968), primitive beliefs form the inner core of a person's belief system and 'represent his basic truths about physical reality, social reality, and the nature of the self (Rokeach, 1968).' Beliefs about nature and human's role in it as measured by the NEP scale appear to constitute a fundamental component of people's belief systems regarding environment (Dunlap, et al., 2000).

Table 2
New Environmental Paradigm (NEP) Scale (Dunlap et al. 2000)

1. We are approaching the limit of the number of people the earth can support
2. Humans have the right to modify the natural environment to suit their needs
3. When humans interfere with nature it often produces disastrous consequences
4. Human ingenuity will insure that we do NOT make the earth unlivable
5. Humans are severely abusing the environment
6. The earth has plenty of natural resources if we just learn how to develop them
7. Plants and animals have as much right as humans to exist
8. The balance of nature is strong enough to cope with the impacts of modern industrial nations
9. Despite our special abilities humans are still subject to the laws of nature
10. The so-called “ecological crisis” facing humankind has been greatly exaggerated
11. The earth is like a spaceship with very limited room and resources
12. Humans were meant to rule over the rest of nature
13. The balance of nature is very delicate and easily upset
14. Humans will eventually learn enough about how nature works to be able to control it
15. If things continue on their present course, we will soon experience a major ecological catastrophe

Development of the Measurement

The NEP focuses on beliefs about humanity's ability to upset the balance of nature, the existence of limits to growth for human society, and humanity's right to rule over the rest of nature. The first NEP scale was developed by Dunlap and Van Liere, which comprised of 12 Likert type items (Dunlap & Van Liere, 1978). It exhibited a good deal of internal consistency, and strongly discriminated between known environmentalists and the general public. This NEP scale has subsequently been applied by many other researchers and tested for reliability, validity and particularly for the dimensions of the scale (Albrecht, et al., 1982; Ryan, 1999; Uysal, et al., 1994). Many of these studies confirmed that the NEP scale is reliable, and is a valid tool to measure environmental values. Factor analysis by Albrecht et al. (1982) showed that the concept included three dimensions of balance of nature, limits to growth, and man over nature.

About the same time period that Dunlap and Van Liere were developing the NEP scale, Weigel and Weigel (1978) produced the Environmental Concern Scale. This scale is similar to the NEP in that it examines attitudes toward more general environmental/ecological issues. This measure includes such items as "The currently active anti-pollution organizations are really more interested in disrupting society than they are in fighting pollution" and "The federal government will have to introduce harsh measures to halt pollution since few people will regulate themselves (Weigel & Weigel, 1978)."

Another widely used measure of environmental attitudes was developed by Kellert (1974), and was later modified and slightly expanded (Kellert, 1980). His measure was based on a typology of attitudes or valuations toward animals to assess basic perceptions of wildlife and the natural world. Several typologies emerged in his measurement, such as "ecologistic, moralistic, and naturalistic. Rauwald and Moore (2002) used both Kellert (1980)'s style of environmental attitude measurement and NEP to reflect local issues and assess environmental attitudes and underlying value orientations.

Other researchers suggest that an individual's value orientations regarding natural resources can be arrayed in a continuum ranging from anthropocentric to biocentric (Shindler, et al., 1993; Steel, et al., 1994; Thompson & Barton, 1994). Stern and his colleagues also examined values associated with general attitudes toward environmental concern (Stern, et al., 1993). According to their findings, attitude towards environment has three dimensions, and are named as egoistic (or egocentric in Merchant's term), altruistic (homocentric), and biospheric (ecocentric) values. Egoistic (egocentric) value means a commitment to maximize personal well-being and one's own interest. Altruistic (homocentric) value consists of concern for the costs and benefits that accrue to others rather than oneself. It refers to the maximization of outcomes for the greatest number of people. On the other hand, those people with biospheric (ecocentric) value view the environment as opportunities for costs or benefits in relation to the ecosystem or the biosphere as a whole. It refers to the stability, diversity, and harmony of the ecosystem (Stern, et al., 1993; Merchant, 1992).

Although these instruments encompass a wide range of beliefs and values regarding nature, these scales mostly focus on specific types of environmental problems and some have become dated. The NEP scale has been widely used during the past 2 decades, and now the revised NEP scale is often used with samples of the general public to measure their environmental orientations (Dunlap, et al., 2000). In fact, many researchers agree that the NEP scale measure beliefs that people have toward nature, and it seems reasonable to regard these beliefs as constituting a paradigm that influence attitudes and beliefs toward more specific environmental issues (Dalton, et al., 1999).

Value Orientations toward Natural Resources in Relations to Other Constructs

As noted previously, primitive beliefs are seen to be influencing a wide range of beliefs and attitudes concerning more specific environmental issues (Stern, et al., 1995). There are a number of studies that show a pro-environmental orientation leading to pro-environmental beliefs and attitudes on a wide range of issues (Dalton, et al., 1999, Merchant, 1992; Stern, et al., 1993).

First of all, many researchers suggest that an individual's value orientations regarding natural resources can be organized into a cognitive hierarchy consisting of values, value orientations (i.e. patterns of basic beliefs), attitude/norms, behavioral intensions, and behaviors (Fulton, et al., 1996; Homer & Kahle, 1988; Rokeach, 1973; Vaske & Donnelly, 1999). Using structural equation analysis, Homer and Kahle (1988) demonstrated that values influence attitudes and in turn, attitudes influence behaviors in

a study of natural food shopping. Similarly, Fulton et al. (1996) found that two wildlife value orientations (i.e. protection/use and benefits/existence) predicted respondents' attitude toward hunting and fishing. Attitude served as a mediator between the value orientation and behavioral intensions to engage in these activities.

People's value orientations toward natural resources are also related with their place attachment level. According to Mesch (1996), the more attached residents tend to dislike environmental disruption and avoid attempts to change the physical nature of an area. The effect of personal value orientation toward their attitude is also mentioned in Molotch's (1976) study. According to him, people's concern for environment hinders residents' receptiveness to changes in their surroundings. With the recent rise of slow-growth, no-growth, or anti-growth coalitions, the growth strategies and the selection of growth policies are even profoundly affected (Gotham, 2000). To gain the preconditions of growth, pro-growth actors try to generate solidarity among growth receptive interest groups and to create community "we feeling" among the residents. Therefore, it is worth examining the relationships between people's value orientations toward nature and their attachment to the community to better understand the effect of rural change at the social psychological level and the connection among the stakeholders at the local level.

Local Attitudes toward Tourism Impacts

Tourism development has often been seen as a means of economic growth. It was assumed that host residents sought tourism development in order to satisfy their economic, social, and psychological needs and to enhance the local quality of life (Ap, 1992). Indeed, in some parts of the country, tourism has stimulated local economic situations and also modified land use and economic structure, and made a positive contribution to the community.

However, economic motivation as a dominant theme in early tourism development had justified tourism development as a growth strategy at the cost of environmental degradation and social/cultural disruption. Although tourism has stimulated employment and economy, and modified land use and economic structure, the growth of tourism has raised many questions concerning the social and environmental desirability of encouraging further expansion. Tourism development, within economic, environmental and socio-cultural contexts, provides resources as well as creates problems with which the local community should cope. Because tourism development may result in unexpected or negative social, cultural and environmental changes in a community, the term tourism impact (or tourism induced changes) gained increasing attention in the tourism literature. Research on many tourism communities showed that it accompanies a multitude of impacts, both positive and negative, on people's lives and on the environment (Harrill, 2004).

Tourism impacts are the net changes within the host communities, brought about by the process or the influence of tourism development (Huang, 1993). With increasing environmental awareness, researchers have recognized the potential destructive influences of tourism development and acknowledged the detrimental consequences. Substantial number of studies has investigated impacts of tourism development on an area, and how these impacts affect the residents' life and their attitudes toward tourism development (Pearce, 1989).

The background of tourism impact studies can be tracked back to the 1950s, when tourism development obtained community support and its economic advantages were largely recognized. Until the early 1970s, academic recognition was concerned predominantly with the positive impacts of tourism. Early studies featured mostly economic prospects and emphasized these benefits (Jafari, 1990). The research focused on economic prospects, with the conviction that tourism indeed possessed developmental potentials (Butler, 1975; Pizam, 1978). These researchers suggested that tourism revitalizes local economy, preserved the natural and man-made environments, revived traditions of the past and eventually promoted cultural performances. This idea was clearly at the forefront when many newly independent countries began to consider tourism as a way to improve their economic situation in the 1960s (Jafari, 1990).

With the growth of mass tourism, people began to identify negative impacts of tourism. Young (1973) found that tourism resulted in both negative and positive impacts. During this period, a number of cautionary statements about the benefits of the tourism industry appeared (Ap & Crompton, 1993). From then, residents began to hold diverse

opinions about tourism development in their communities. These studies were not limited to economic views, and included all the influences of tourism such as sociocultural aspects and on the costs and benefits of tourism. Researchers argued that tourism generates mostly seasonal and unskilled jobs, and benefits only those who are related to tourism. They said that tourism destroys nature and landscape, that tourism commercializes people and their cultures, and that tourism disrupts the structure of the host society (Mathieson & Wall, 1982; Young, 1973).

Finally, when the range of positive and negative aspects of tourism development had been identified, research attention was drawn to finding strategies for alternative forms of tourism development that were more or less sustainable with minimal unwanted consequences. This research favored those forms of tourism that are responsive to the host communities and their sociocultural, man-made, and natural resources, while still providing tourists with new choices and rewarding experiences. Such diverse opinions sparked increasing research into the perceived impacts of tourism development on host communities and the attitudes of those communities toward its growth over the past two decades (Martin, 1995; Mason & Cheyne, 2000; Snaith & Haley, 1999).

Conceptualization

Impacts of tourism are viewed as being more than the results of a specific tourist event or facility. They result from processes of change, and these impacts change through time with changing demands of the tourist population and with structural

changes in the destination areas. Impacts emerge in the form of altered human attitudes and behavior that stem from the interaction between the agents of change and the subsystems which they interrupt. That is, impacts result from a complex process of interactions among tourists, host communities, and destination environments. Traditional tourism impact theory uses a tripartite theoretical framework after Butler (1974) and an alternative impact model from Brougham and Butler (1981). Based on the past research, the following section details the impacts of tourism in economic, environmental and sociocultural aspects.

Economic aspects of tourism impacts

There is no doubt that tourism development has major effect on the economies of destination areas. Economic impacts induced by tourism development encompass the monetary costs and benefits which result from tourism development and use of tourist facilities and services.

There are numbers of studies regarding economic impacts of tourism development. Most of these studies focus on the benefits added to the community rather than costs. The majority of researchers concluded that tourism could bring in foreign exchange (Mathieson & Wall, 1982), increased employment opportunities (Koegh, 1990; Martin, 1995; Mason & Cheyne, 2000; Pearce, 1989) and personal income (Koegh, 1990; Martin, 1995), a large multiplier effect (Machlis & Field, 2000; Richards & Hall, 2002), and improvement of economic structure, all of which would stimulate the local

economy and raise the standard of living (Allen, et al., 1988; Gilbert & Clark, 1997; Haralambopoulos & Pizam, 1996; Huang, 1993; Teye, et al., 2002).

These studies contend that as tourism development mature, the demand for infrastructure increases, which in turn, increases the demand for labor. In doing so, tourism development can create more jobs and provide opportunities for employment, and it also improves the economic structure of the area. In this sense, tourism offers considerable potential for economic growth in the destination area in the early phase of the development. Thus, tourism development becomes a way of upgrading a community' economy in many areas (Lankford & Howard, 1994; McCool & Martin, 1994).

However, these studies did not assess the types of jobs created by tourism, their match with regional employment goals, and the integration of tourism with broader development planning. They neglected the fact that outside owners of tourism companies and hotels might reap most of the economic benefits while local residents take on low-paying jobs in hotels and restaurants, and that tourism development could result in perpetual social and cultural changes (Geisler, 1993).

Several sources increasingly recognize that economic benefits of tourism may not be as great as often thought. These studies noted imbalances in income distribution and employment opportunities such as providing unskilled and low-paid jobs (Allcock, 1986), the seasonality issue (Allcock, 1986), increased inflation (Greenwood, 1976), increased cost of living, and increased costs of land and real estate (Liu & Var, 1986; Machlis & Field, 2000), and the danger of overdependence on a single industry (Akis, et

al., 1996; Greenwood, 1976; Koegh, 1990; Long, et al., 1990; Machlis & Field, 2000; Richards & Hall, 2002; Snaith & Haley, 1999; Pizam, 1978; Young, 1973). In addition, the community's traditional work patterns might be seriously affected (Crick, 1996), and a number of other costs can be imposed on residents of destination areas, such as garbage collections and disposal, or increased maintenance costs for attractions damaged by crowding and vandalism.

The economic impacts of tourism development have been well documented in the literature. Although there are studies on both positive and negative impacts, much more is known about the positive economic impacts of tourism development. Because of continued emphasis on the positive nature of related studies, the overall economic impacts generally tend to be accepted favorably and with optimism. Future examination of the economic impacts of tourism should adopt a more balanced approach which assesses both the benefits and the costs of tourism development perceived by the host community.

Environmental aspects of tourism impacts

Though tourism had often been considered a clean industry, this is not always true in reality. It can cause significant environmental changes and damages because it is often developed in attractive but fragile environments (Andereck, et al., 2005). In addition, there is a possibility that local development policy becomes focused more on meeting the needs of tourists, not on the local residents and the area. Thus, tourism

development has potential to undermine itself by being insensitive to the environmental impacts it is causing to the local area (Doggart & Doggart, 1996).

Environmental impacts of tourism include alterations to the natural environment, including air, water, soils, vegetation, and wildlife, as well as changes in the built environment due to tourism development (Wall & Wright, 1977). Recent environmental legislation, and demands by society for environmental impact statements for projects/policies which significantly affect the environment have stimulated interest in environmental impact research, and emphasized the need for the development of sound analytical procedures.

The positive benefits of the natural area and tourism relationship have been fostered for over two decades. To some researchers, tourism provides an incentive for the restoration of historic heritage and for the conservation of natural resources. Those with this perspective on tourism development view tourism as having potential to provide communities with vast benefits, in contrast to the traditional resource extractive activities that many rural communities have relied upon. Thus, tourism development continues to be perceived as a "clean" and "sustainable" industry with few serious environmental impacts (Smith & Krannich, 1998). Tourism development is thought to improve local infrastructure and appearance of the community in some areas, and provide them with more and better recreation facilities, parks (Green, et al., 1990), improve roads and public services (Lankford, 1994), and improved community appearance (Purdue, et al., 1990).

With this perspective in mind, cooperation between conservation and tourism was advocated by many organizations. They stressed their interrelatedness, pointing to the need for their future cooperation and argued that there were reasons why conservation should seek the support of tourism. They claim that tourism provides conservation with an economic justification, is a means of building support for conservation, and that it can bring resources to conservation (Phillips, 1985). More recently, Lindberg et al. (1996) have argued that natural area tourism can generate positive environmental impacts such as some tours involving cleaning trails or undertaking rehabilitation work. These forms of tourism can also generate positive impacts indirectly by increasing educational, political and economic support for natural area conservation and management. Thus there is considerable support for notion that some types of tourism support conservation and therefore represent a sound symbiotic relationship (Newsome, et al, 2002).

On the other hand, the growth of tourism inevitably modifies the environment, and the majority of the literature examines relationships between tourism and environment in conflict. In this context, tourism means people, congestion, noise, and litter. It could also mean disruption of ecological systems. The growing literature on the environmental impact of tourism emphasizes significant negative environmental impacts that tourism can bring to host communities. The items that emerge most often as a problem were the impact of tourism on traffic congestion (Brunt & Courtney, 1999; Liu, et al., 1987; McCool & Martin, 1994) and littering (Brunt & Courtney, 1999; Gilbert & Clark, 1997).

Liu et al. (1987) argue that as tourism increases, so too, does the perception of negative impact on the physical environment, as well as the corresponding need to protect what remains of the environment increase. Hvendegaard (1994) also described adverse environmental impacts caused by tourism in protected areas. They include overcrowding, overdevelopment, pollution, wildlife disturbance, and vehicle use. These impacts are more serious for ecotourism than general tourism because ecotourism is more dependent on relatively pristine natural environments than the other types of tourism development.

Indeed, tourism development may cause environmental degradation, since it is based on natural resources or related facilities. It can be a threat to the environment or even cause the loss of resources if not carefully designed and managed. Other studies reported include resident concerns with water and air quality (Andereck, 1995; Koegh, 1990; Snaith & Haley, 1999), changes in pollution level (Andereck, 1995; Gribb, 1991; Loewenstein & Frederick, 1997), an area's aesthetics appearance (Andereck, 1995; Bystrazanowski, 1989; Koegh, 1990; Snaith & Haley, 1999), damage to wildlife (Mrosovsky, et al, 1995; Sweatman, 1996), crowding of public facilities and resources (Andereck, 1995; Gribb, 1999; Koegh, 1990; Lindberg & Johnson, 1997; Martin, 1995; Mason & Cheyne, 2000; Snaith & Haley, 1999), parking problems (Gribb, 1991; Lindberg & Johnson, 1997), damage to vegetation (Cole & Spildie, 1998) and so forth.

Most of this research has been in response to immediate threats to the environment. Such threats have resulted in a concentration on special environments such as coastlines, small islands, coral reefs, and other delicate ecosystems. Damage to

the coral in Great Barrier Reef, Australia, has been extensive due to souvenir gathering and diving (Rouphael & Inglis, 1997). Similarly, loss of vegetation has been a noted environmental impact due to the development of ski resorts and golf courses (May, 1995; Medio, et al., 1997; Terman, 1997) and due to outdoor activities such as hiking and horse riding (Cole & Spildie, 1998).

In many other communities with substantial amounts of tourism, the associated growth and development have resulted in destruction of the landscape, loss of open space and wildlife habitat, noise, overcrowding, pollution, property destruction, and development of unplanned buildings and settlements (Andereck, 1995; Kendall & Var, 1984; Krippendorf, 1982; Liu & Var, 1986; Travis, 1982). Most of these studies were undertaken after damage or change was occurred. As a result, few studies attempted to clarify the processes of environmental change or relate these to aspects of the agent of change which, in this case, is potential tourism development.

Tourism development results in changes in people's behavior, perception, and attitude. People respond differently to the environmental changes and challenges to their quality of life as a function of their unique needs, experiences, and so on. Some would resist and be displaced but some would show adaptive behaviors and develop new expectations in dealing with potentially negative environmental impacts.

A number of studies tried to investigate how people respond to change to offset the potentially negative effects, and found that respondents showed resistance to any possible changes even during the pre-change period (Holahan, 1978; Watson, 1969). The authors were impressed by how much change was feared among the residents who

had to undergo a remodeling of their surroundings. According to them, resistance to the environmental changes was inversely related to the degree of perceived control they felt in producing changes. Resistance decreased dramatically when they were able to increase their feeling of control (Holahan, 1978). Watson (1969) also states that resistance will decrease when participants feel that the project is their own, and that their autonomy is not threatened.

Environmental impact is a major concern in the development of tourism projects. Lack of attention to the possible environmental impacts may directly result in decreased quality of life for the residents as well as degradation and loss of the resources which tourism is based on. More research is needed to establish the types, magnitudes and directions of impacts, and to identify specific types and intensities of impact in relation to different forms of tourist activity.

Social and cultural aspects of tourism impacts

In addition to impacting economic and environmental arenas of local life, tourism development can also affect social and cultural aspects of a community. Rapid community development affects the quality and fabric of community life by revising interaction possibilities, changing value systems, social relationships and organization, and by transforming elements of community and landscape that contribute to personal and collective identity (Dogan, 1989; Stokowski, 1996). Tourism is essentially a social phenomenon and, although it is influenced by the society in which it exists like other industries, tourism is unusual in that it involves a large scale, temporary transfer of

individuals between different societies. This can create both a temporary and a longer-term sociocultural changes.

Research on the social and cultural impacts of tourism regarding the host population is concerned with the changes in the way of life of residents of destination areas caused by tourism development and interaction with the tourists. It is defined as the ways in which tourism contributes to changes in social conditions. They are the ways in which tourism is contributing to changes in value systems, individual behavior, family relationship, collective life style, safety level, moral conduct, traditional ceremony, and community organizations (Dogan, 1989; Fox, 1977; Stokowski, 1996).

Some communities have reported excellent host-guest interactions while others have noted adverse problems. Such differences have led researchers to advocate the necessity of conducting research into the attitudes of residents towards tourism and tourists (Jafari, 1987; May, 1991). Until the 1970s, sociocultural impacts of tourism were a neglected area of study. In recent years a number of studies have emerged that examine the sociocultural impacts of tourism. These researchers have found positive sociocultural impacts due to modernization and changes in ethnic attitudes by means of cultural exchange (Greenwood, 1976; Sharpley, 1994; Teye, et al., 2002), increased supply of services due to infrastructural development (such as quality restaurants, cultural facilities and places for shopping) in the destination (Greenwood, 1976), improved community service and facilities (Brunt & Courtney, 1999; Liu & Var, 1986), and consequently, improved quality of life for local residents (Coccossis, 1996; Garland, 1984; Milman & Pizam, 1988). Recently, attention has been focused upon the positive

influences of tourism on growing world peace and encouragement of cultural activities (Var & Ap, 1998).

However, unlike economic impacts, social impact studies are usually portrayed in a negative manner. While tourism may have improved the social structure of the host community and broadened cultural understanding, it will inevitably bring about problems. Rapid and intensive tourism development results in different and usually less favorable impacts than organic and small scale development (Krippendorf, 1982; Pearce, 1989). Young (1973) argued that unrestricted promotion of tourism has resulted in negative impacts upon host residents. According to Huang (1993) and Milman and Pizam (1988), tourism development can contribute to social conditions that lead to serious problems in the host society. The main impacts are the demonstration effect (Richards & Hall, 2000), that the hosts' behavior is modified in order to imitate tourists. They believed that one of the most significant and least desirable byproducts of tourism development is its effects on the moral standards of the host population (de Kadt, 1979; Fox, 1977; Koegh, 1990; Milman & Pizam, 1988; Pearce, 1989).

The growth of crime and gambling has been mentioned frequently as a negative side of tourism development (Andereck, 1995; Graburn, 1983; Greider & Krannich, 1985; Gribb, 1991; Lankford, 1994; Long, et al., 1990; Martin, 1995; Mason & Cheyne, 2000). Crime rates are suspected to increase with increasing tourism development. One study about gambling development of a town in Massachusetts mentioned that residents showed negative perception of the gambling development in their town in terms of loss

of traditional image of town and community identity (Long, 1996; Pizam & Pokela, 1985).

Other studies have found such impacts as loss of cultural identity (Mill, 1990; Evans, 1994), changes in the size and the demographic characteristics of the host population (Jeffs & Travis, 1989), changes in daily rhythm of life, decline in cooperation and mutual aid between families (Greenwood, 1976; Richards & Hall, 2000), degradation of morality, breakdown of family (Koegh, 1990), drug addiction and alcoholism (Andereck, 1995; Greider & Krannich, 1985), vandalism (Ap & Crompton, 1993; Burns & Holden, 1995; Johnson, et al., 1994), changes in safety level (Greider & Krannich, 1985), loss of small town atmosphere (Teye, et al., 2002), alteration of community structure (Duffield & Long, 1981), increased social conflict (Brunt & Courtney, 1999), and increase in population (Purdue, et al., 1991).

The goals of these research are to develop a framework for understanding how residents view and respond to the social impacts of tourism. Such research is often undertaken in order to monitor the social well-being of destination areas in the presence of tourism, as the viability of an area's tourism industry can be affected negatively if deterioration is perceived to occur in the natural or social environment. Such negative perceptions can diminish residents' support for tourism development and can impact upon the experience of the visitors through their interactions with them. Communities are not homogeneous and can contain discrete subgroups identifiable by their attitudes to tourism. The identification of such subgroups can also provide planning relevant information which can aid the management of tourism development (Hall, et al., 2003).

Conclusion

Much of the research on environmental perception confirms that people take their usual physical setting for granted and thus have few opinions, sharp preferences, or desires to change it (Ittleson, et al., 1974). It is not until they experience or are distracted by negative impacts that they realize the significance of their surrounding environment.

Development is always accompanied by changes. Recreation and tourism development in a number of rural settings have been dramatically transformed to become active and significant agents of environmental, economic and social change. (Hall, et al., 2003). Although people have desire to maintain the status quo (Ittleson, et al., 1974), they might have different attitudes toward change when the change is related to economic development. When the development is related to tourism in their community, they might have different attitudes toward tourism induced changes and thus toward support for tourism development (Harrison & Easton, 2002).

It is inevitable that the development of tourism will induce impacts. The nature of tourism means that it is likely to alter the economic and social goals of the hosts and modify the physical environment. There are numerous examples of how tourism growth in rural areas has had detrimental impacts on the sociocultural values of local residents (Jordan, 1980) and economic diversity (Becker & Bradbury, 1994). However, many of tourism's effects on rural communities are complex and as yet unknown (Machlis & Field, 2000). With the rapid growth of tourism and its numerous and diverse impacts, it is crucial that planning be implemented to manage these effects.

Shelby et al. (1988) noted three issues related to impact perception that should be considered; 1) whether the impact is recognized, 2) whether the impact is important relative to other site attributes, and 3) evaluation of the impact as acceptable or unacceptable. More recently, research has been directed toward determining acceptable standards for a variety of social and environmental impacts (Shelby, et al., 1988; Vaske, et al., 1993). This literature suggests that acceptable standards for particular types of impacts should be identified and so that it could be used to guide resource management decisions (Vaske, et al., 1993).

Long and Lane (2000) also suggest that accepted indicators are needed to monitor the impacts of such developmental trends over a period of time, and that the use of such indicators can assist better policy making and planning. The main objective of tourism planning should thus ensure that opportunities are available for tourists to gain pleasant and satisfying experiences and, at the same time, provide a means for improving the way of life of residents of destination areas. Therefore, sound management policies, appropriate planning procedure and community participation are strongly needed in tourism development process.

Summary and Relationships among Pertinent Literature

Rokeach (1973) defines value as "an enduring belief that a specific mode of conduct is personally or socially preferable to an opposite or converse mode of conduct

or end state of existence." He points out that everyone may hold the same set of values, but these values are expressed with various intensity. Value orientations represent the pattern of direction and intensity among a set of basic beliefs regarding an issue of interest (Fulton, et al., 1996). Basic beliefs serve to strengthen and give meaning to fundamental values. Patterns of these basic beliefs create value orientations (Fulton, et al., 1996). Although people with the same social and cultural background tend to share similar values, their attitudes and behaviors could be quite different due to different value orientations.

Cognitive hierarchy theorists predict that the general value orientations affect attitudes regarding specific objects and situations (Homer & Kahle, 1988; Fulton, et al., 1996; Lai, 2000; Stern, et al., 1995; Vaske & Donnelly, 1999). They assume that value and value orientation are fundamental determinants of attitude, behavioral intention, and behavior. Values are the most central component of a person's belief system, which are linked to many other beliefs or attitudes. The influence of values on attitudes and behavior can occur directly or indirectly via other components in the cognitive hierarchy (Homer & Kahle, 1988).

Value reflects the most basic characteristics of adaptation values, since it is the most abstract of the social cognitions. These abstractions serve as prototypes from which attitudes are manufactured. Thus, differences in values have been shown to result in significant differences in a variety of attitudinal and behavioral outcomes (Homer & Kahle, 1988; Manfredo, et al., 1997).

These researchers also noted that attitudes are expressions of individual values (Rokeach, 1973), that values help people adjust to the society, to defend their egos from the conflicts between the inner personality and the real world, which are suggested as the function of attitude by Katz (1960). Rokeach (1973) argues that functions of attitude are just manifestations of different values because "the content of values must concern itself with the relative desirability or importance of adjustment, ego defense, and knowledge." This argument implies that value is a determinant of attitude.

For example, some researchers hypothesized that individuals' environmental concern and nature values have a direct and independent effect on community attachment (Jurowski, et al., 1997; McGehee & Andereck, 2004; Mesch, 1996), and those individuals who value nature are less accepting of environmental impacts than individuals with lesser degree of concern (Floyd, et al., 1997; Kilbourne, et al., 2002). They assert that as people's concern for the environment increases, their perception of necessary changes and willingness to change to achieve environmental balance will also increase. From a theoretical point of view, it has been claimed that attachment to a place involves care and concern for the place (Relph, 1976), which implies that individuals with a strong attachment to an area probably will oppose environmental and social degradation (Vorkinn & Riese, 2001).

Although place attachment has been an important factor in explaining opposition to environmental degradation and tourism development among the residents in the community where the degradation will take place (McCool & Martin, 1994), it may be unimportant for opposition when the degradation is not directly related to their locale

and is in a larger scale region (Vorkinn & Riese, 2001). For example, Kahneman and Knetsch (1992) showed that respondents were different in their attitudes toward cleaning up all the lakes of Ontario than towards cleaning up the lakes in any particular region of Ontario. Those that had a personal meaning to them were of higher concern (Bazerman, et al., 1997). Also, some have found evidence that attachment is negatively related to tourism attitudes (Lankford & Howard, 1994), but this relationship is not yet conclusive given that others have found the opposite or no definitive evidence (Gursoy, et al., 2002; McGehee & Andereck, 2004).

On the other hand, recent community theories show that resident involvement with local affairs and collaborative planning are integral parts of a sustainable development process (Bramwell & Sharman, 1999; Koontz, 2003; Simmons, 1994). Differences in attitudes toward local participation have been examined according to many affecting factors such as pro-environmental values (Rauwald & Moore, 2002), degree of tourism development (Long, et al., 1990), level of an individual's involvement in the tourism industry (Smith & Krannich, 1998), maturity of destination (Sheldon & Abenoja, 2001), and type of tourism development (Ryan, et al., 1998). These factors were found to affect personal attitudes, especially toward tourism development.

In addition, it was found that too much tourism, and subsequently, too much tourism induced impacts cause negative perceptions toward tourism development by the residents, making them to oppose further development in destination communities (Ap & Crompton, 1993; Gursoy & Rutherford, 2004; Koegh, 1990; Mason & Cheyne, 2000; Snaith & Haley, 1999). Therefore, relevant impact research is needed prior to planning

tourism. The dynamic characteristics of all societies and cultures, and also the potential influences must be considered against the background of the community.

Added to the relationship between attitude toward tourism impact and its development is the perceptions toward desirable tourism development options in the LAC system point of view. It can be hypothesized that an individual's response regarding desirable types of tourism development in their community can vary based on his/her attitude towards tourism impact and tourism development (Andereck & Vogt, 2000). For this, 15 items were developed in this study to give the residents examples of tourism development options in varying degree of outcomes.

Lastly, Certain physical characteristics of the communities affect people's perceptions on tourism development. Resident perceptions may vary with the distance a person lives from the tourism zone (Belisle & Hoy, 1980), or with the surrounding landscape where they reside (Kuo, et al., 1998). For instance, the farther residents live from the tourist zone, the less contact they will have with it, and it will result in different perceptions on tourism development. Significant differences in resident attitudes may be related to locational characteristics, with tourism contact and influence of the residents' home in relation to the tourism center being major explanatory variables (Belisle & Hoy, 1980). Residents' attitudes in north and south counties are compared to see this effect. North regions of Brewster County, Texas is characterized as more established with more population, while south county are more rural and isolated with more residents relying on tourism industry. It is expected that certain attitudinal differences can be found in

these two regions, which will be useful in suggesting different planning strategies for each region.

As noted by Machlis and Field (2000), social science can bridge the gap between different domains of endeavor by combining environmental concerns, cultural interests, and place attachment into one uniting concept of "meaningful space," thereby contributing to better management of natural resources. Likewise, research based on community theories, attachment theory, and LAC planning framework is expected to provide information concerning the baseline against which changes and impacts can be assessed and managed properly. Growth, development, and change are inevitable in rural communities, and it will continue. Thus, the fates of the rural place, linked by the needs of protection and development, are intertwined. How this relationship is managed is likely to determine the future of the area.

Research Hypotheses

Five sets of hypotheses were developed to operationalize this study for the Big Bend area. A research question for the first set of hypotheses is stated as "Does people's concern for the environment influence their attitude toward tourism?" Based on Rokeach (1973)'s model and other literature on people's concern for the environment, it can be hypothesized that value orientation regarding natural resources influence their attitudes toward any objects and actions, in this case, toward community attachment,

attitude toward participation, tourism impacts and tourism development. Five hypotheses were developed.

H1a. Residents' value orientations regarding natural resources will positively affect their level of community attachment.

H1b. Residents' value orientations regarding natural resources will positively affect their attitude toward public participation.

H1c. Residents' value orientations regarding natural resources will negatively affect their attitude toward potential tourism impacts.

H1d. Residents' value orientations regarding natural resources will negatively affect their attitude toward tourism development.

H1e. Residents' value orientations regarding natural resources will affect their perceptions on desirability of different types of tourism development options.

The second set of hypotheses was developed following a stream of place attachment literature in relations with other constructs. Based on the literature review of attachment theory, it is logical to assume that BB residents who are highly attached to their residence are less likely to favor changes occurring around their livelihood. Research questions for this issue are "Does community attachment predict attitudes toward participation, potential impacts and tourism development among the local residents?" and "does residents' community attachment level affect their attitude towards public participation?". Three hypotheses for BB area management were

developed as follows. Because of the conflicting results in the attachment literature, a direction is not articulated in the hypotheses.

H2a. Residents' attachment to their community will influence their attitude toward potential tourism impacts.

H2b. Residents' attachment to their community will influence their attitude toward tourism development.

H2c. There will be a positive relationship between residents' community attachment and their attitudes toward public participation.

Based on the community theories and the elements from the acceptable change concept, a third research question was developed: "Does attitude toward or actual participation in any local organizations predict attitudes toward potential impacts and tourism development among the local residents?" Two consequent hypotheses were developed.

H3a. Residents' attitudes toward community participation will be positively related with their attitudes toward potential tourism impacts.

H3b. Residents' attitudes toward community participation will be positively related with their attitudes toward tourism development.

March (1978) noted that rational choice involves guesses about the future consequences of current actions and preferences. According to him, making decisions on the basis of biased assessments of how one will feel about outcomes is no less problematic than making decisions based on inaccurate assessments of the outcomes themselves. McGehee and Andereck (2004) also argue that resident perceptions of and attitudes toward tourism impacts are at least as important as the actual impacts. People's attitude toward current matters can be a successful predictor of an incident to come in the future. In the environmental domain, this type of prediction is important, and a number of studies have focused on predicting the objective consequences of current actions (Koegh, 1990; Mason & Cheyne, 2000; McGehee & Andereck, 2004).

As such, a research question was developed as "Do attitudes toward potential tourism impacts predict attitude toward potential tourism development and different types of tourism development options?" It is obvious that those who have negative attitudes towards tourism impacts will not prefer development options that involve high impacts to the area. Accordingly, the hypotheses state that,

H4a. There will be a positive relationship between residents' attitude toward potential tourism impacts and their attitude toward tourism development.

H4b. There will be a positive relationship between residents' attitude toward potential tourism impacts and their opinions on desirable types of tourism development options.

A research questions leading to hypothesis 4c is "Does residents' attitude toward tourism development affect residents perceptions on desirability of different types of tourism development options?" Based on the review of literature, it can be expected that residents with positive attitude toward tourism development would think any types of tourism development are desirable, whereas those with negative attitude toward tourism development would think types of tourism development with less impacts are desirable for their community. Accordingly, the hypothesis was set as follows.

H4c. Residents' attitude toward tourism development will have influence for what types of tourism development options residents will think desirable.

The last hypothesis involves looks at different attitudes of different groups of people. It looks at the influence of distance or spatial factor on people's attitude toward tourism. A research question is stated as "Are their any attitudinal differences among different groups people?" A few researchers have investigated the relationship between space and attitudes toward tourism development. They attempted to make connections between attitudes in specific residential or tourism zones and the physical distance between residents and tourists. According to them, the closer a resident lives to concentrations of tourism activity, the more negative his/her perception will be of tourism.

Specifically, Korca (1998) and Gursoy et al. (2002) found out that residents favored tourism growth on the whole, but felt less favorable toward the location of tourism facilities close to home. Harrill and Potts (2003) also found that the neighborhood with the most negative attitudes toward tourism in a city was located in the tourism core and received the most negative impacts. This kind of information can be important to planners seeking appropriate sites for tourist facilities as well as determining areas unsuitable for tourism development. Thus, the last hypothesis is stated as;

H5. The residents of northern area of the county (Alpine, Marathon) will have differing attitudes compared to the residents of southern area (Terlingua, Study Butte).

Tourism, like any other economic activity, can lead to undesirable environmental and socioeconomic impacts. In order to avoid these negative impacts and to manage them, we need to find sustainable ways of tourism planning because without this, tourism cannot be a useful tool for economic development of a community while still protecting the natural and cultural environment. Thus, for tourism in a destination area to flourish, its adverse impacts should be minimized and foreseen before the development, and at the same time, its positive impacts should be accentuated.

Given the impacts that tourism development might bring in to BB area, it is important to gain an understanding of the host population's view regarding its impacts.

Table 3
Research Hypotheses

	Research Hypotheses
1a	Residents' value orientations regarding natural resources will positively affect their level of community attachment
1b	Residents' value orientations regarding natural resources will positively affect their attitude toward public participation
1c	Residents' value orientations regarding natural resources will negatively affect their attitude toward potential tourism impacts
1d	Residents' value orientations regarding natural resources will negatively affect their attitude toward tourism development
1e	Residents' value orientations regarding natural resources will affect their perceptions on desirability of different types of tourism development options
2a	Residents' attachment to their community will influence their attitude toward potential tourism impacts
2b	Residents' attachment to their community will influence their attitude toward tourism development
2c	There will be a positive relationship between residents' community attachment and their attitudes toward public participation
3a	Residents' attitude toward community participation will be positively related with their attitude toward potential tourism impacts
3b	Residents' attitude toward community participation will be positively related with their attitude toward tourism development
4a	There will be a positive relationship between residents' attitude toward potential tourism impacts and their attitude toward tourism development
4b	There will be a positive relationship between residents' attitude toward potential tourism impacts and their opinions on desirable types of tourism development options
4c	Residents' attitude toward tourism development will have influence for what types of tourism development options residents will think desirable
5	The residents of north county will have differing attitudes compared to the residents of south county

In this way, tourism development can obtain the support from the resident population, which in turn, can lead its development to a sustainable and successful one. In this sense, research such as this is an indispensable input to the planning of tourism destinations. The research hypotheses to be tested in this study are stated in table 3, and the hypothesized relationships are graphically presented in figure 2.

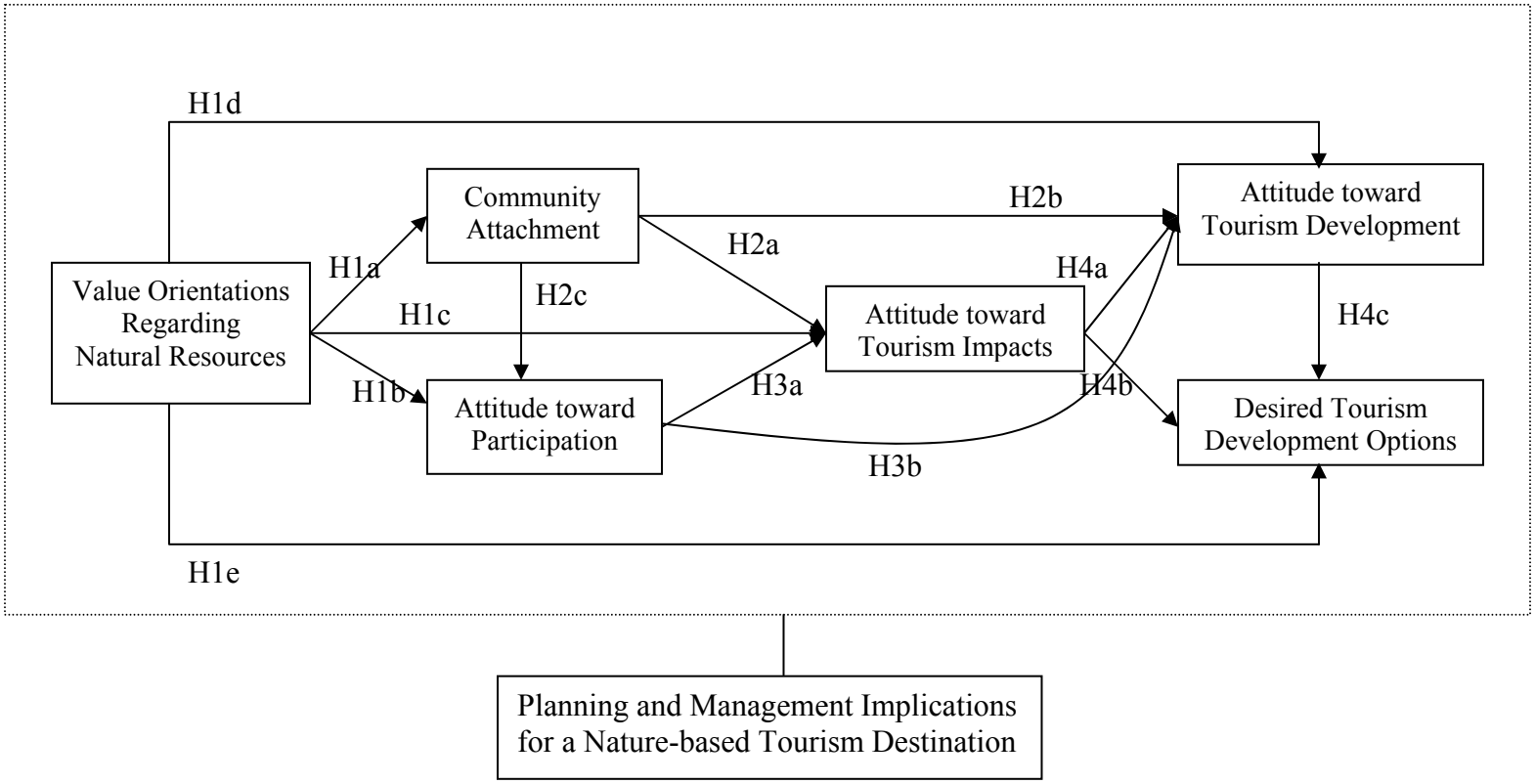

Fig 2. Conceptual Model for Attitudes toward Tourism Development.

CHAPTER III

RESEARCH METHODS

This chapter describes the research methods used to complete this research in five sections. In the first section, brief information on the study area is presented along with a map of the region. The second section describes the sample selection procedure and how data were collected. The development of the instrument used to collect data is described in the third section. The fourth section includes a summary of how data will be analyzed, and the final section conveys the significance of this study.

The proposed model was intended to explain how residents' value orientations and community attachment affect their attitude toward tourism induced changes, future tourism development and desirability of some tourism development options. Thus, it attempts to explain the inter-relationships among basic beliefs, psychological and attitudinal constructs.

Study Area

Data for this study were collected through a mail back questionnaire survey of residents of the Big Bend area (i.e. Brewster County), Texas, starting in January, 2006.

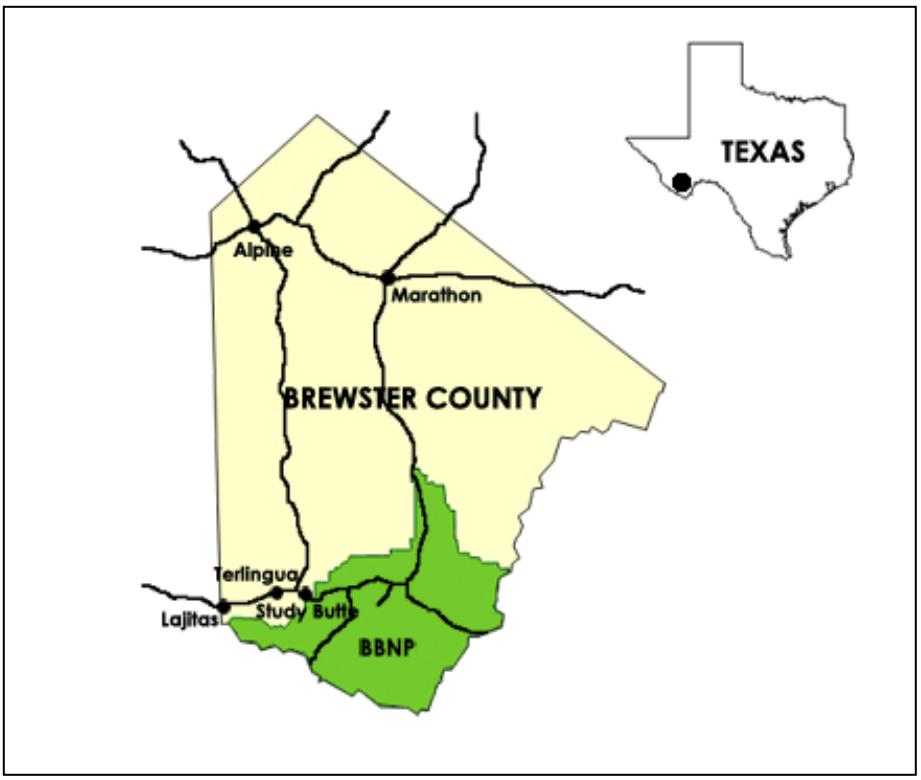

Fig 3. Map of Brewster County, Texas.

The population of interest consisted of all the residents of Alpine, Marathon, Study Butte, and Terlingua, Texas.

Brewster County is located in the southwest part of Texas (Figure 3). The curve of the Rio Grande River forms the Southern boundary of the county as well as the international border with Mexico. Recognizing the national significance of the Big Bend area, the State of Texas purchased the necessary lands and donated them to the United

States in the mid-1930s. Big Bend National Park was formally established in Brewster County by Act of Congress in 1944 (Tyler, 1975).

Although largest in area, Brewster County is the second least populated of the 254 Texas counties. Communities are isolated and remote, and many lack services taken for granted in the more urbanized areas of Texas. It is 315 miles southeast (about 6 hours drive) from El Paso and 390 miles west (about 8 hours drive) from San Antonio, Texas. It is also a 5 hour drive from Midland, which is the nearest city with a commercial airport. The remoteness of the area likely makes change and growth more easily recognizable by the residents.

In the county are several gateway communities to the National Park, including Alpine, Marathon, Study Butte, and Terlingua. The population of the county totaled 9,247 as of 2003, of which 66 % (6,103) resided in Alpine and 0.8 % (700) in Marathon. The rest, 26.4% (2,444), resided in the southern region, or what is commonly referred to as south county (U.S. Census Bureau, 2003). Although the population of the county had been somewhat stable with a 2.1% increase from 1990 (8,681) to 2000 (8,866), it shows a recent increase of 4.3% for the 3 years from 2000 (8,866) to 2003 (9,247). In addition, the rural land price is increasing. Median price per acre went up 75% from 2001 ($120) to 2004 ($210) (Real Estate Center at Texas A&M University, 2005).

The white Anglo Americans comprises 53.1% (4,710 in number), while Hispanic or Mexican Americans comprise 43.6% of the total population (3,867 in number) (U.S. Census, 2000). Compared to other counties in Texas, especially those counties bordering Mexico, Brewster County is low in the proportion of persons below the

poverty level and high in residents' educational attainment level. The county's major industries are education, health and social services (27.8%), followed by arts, entertainment, recreation, accommodation and food services (15.0%), and retail trade (12.4%).

Sample Selection and Data Collection Procedure

Since a census of this group of people is not feasible to study, a sample was defined to represent residents of Brewster County. Two different methods were used in selecting samples for both the north and south regions of the county. The north county included city/towns located in the northern part of Brewster County, such as Alpine and Marathon. The south county included the towns of Study Butte and Terlingua, closer to Big Bend National Park and more remote from bigger cities and interstate highway 10. For the north county, a random systematic sample of addresses was selected from the West of the Pecos phone directory. Every 11th address was systematically chosen with a random start. This yielded a sample of 400 for the north county.

To reduce non-response errors for the south county where there is a higher percentage of households without a phone line, this study used local* help instead of using a phone directory. Lisa Lowe, a postmaster in the Terlingua Post Office randomly delivered 400 questionnaires to the P.O. Boxes for the towns that cover the southern

region, such as Study Butte, and Terlingua. The overall sample size was selected with an anticipated 40% response rate.

This study relied on self-administered mail back surveys. A modification of Dillman's (2000) Total Design Method (TDM) was used to collect the data. Each person in the mail back sample was sent a cover letter (Appendix A), a 10-page questionnaire (Appendix B), and a postage-paid envelope during January and February of 2006. One reminder/Thank you post card (Appendix C) was sent to the subjects after 10 days of initial mailing. Ten days after distributing the reminder postcard, the replacement copy of the questionnaire and a cover letter was sent to the respondents who had not yet responded.

This study followed the guidelines on ethics suggested by Babbie (1998). The respondents participated voluntarily, and the survey was designed to do no harm to respondents who volunteered to cooperate with the study. Confidentiality was also secured to protect residents' identity. However, the study was not able to secure anonymity, due to follow-up plans for the respondents who failed to reply to the first given response with a given respondent. When a respondent is considered anonymous, researchers cannot identify a given respondent with a given response, with a promise that the researcher will not identify the respondent.

A total of 800 residents were contacted, with 101 surveys returned as

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* I especially thank Mike Davidson from the Visit Big Bend Tourism Council and Lisa Lowe from the Terlingua Post Office for their help in selecting and reaching potential respondents for this study.

undeliverable. Of the 699 potential participants, 140 residents responded to the initial mailing, while 63 residents responded after sending out the reminder postcard (Table 4). Another 56 residents responded after the second mailing was sent out. Two hundred fifty nine residents from Brewster County participated in this study, for an overall response rate of 36.9%. As promised in the cover letter, four respondents were randomly selected to receive incentives offered to enhance response rate. They were sent a $25 money order to there home address through U.S. Postal Service.

There was only one incomplete questionnaire from the 259 questionnaires returned, and 28 questionnaires had some missing values. Although these 28 questionnaires could be used for descriptive and factor analyses, they were eliminated when performing Structural Equation Modeling (SEM) because SEM does not allow missing values.

Table 4
Survey Response Rate

Total # of Questionnaires Distributed	Questionnaires Returned			Non-usable Questionnaire	Non-delievables	Total Response
	After Initial Mailing	After Reminder was Sent	After 2nd Mailing			
800	140	63	56	1	101	258 (36.9%)

It is obvious that a higher response rate would generate a lower likelihood of response error. However, previous research has indicated that low response rates may be acceptable within the relatively homogenous groups such as residents (Becker, et al., 1987). Goudy's research (1978) conducted in a small rural town in Iowa confirmed this result, that a small town represented a relatively homogenous group. Brewster County is comprised of very small towns in Texas with largest town (Alpine) population of 6,003 (U.S. Census Bureau, 2003), suggesting that residents from each town may be a homogenous group.

Development of Survey Instrument

Questionnaires are a well-established method of collecting data within social science research (Dillman, 2000). For a questionnaire survey to be successful, the questions and questionnaire itself should be concise, simple, but at the same time, should be designed to collect the data necessary to meet the study's objectives. This section describes how the seven types of measures that were used in this study were developed. Its construction was heavily influenced by the existing literature pertaining to residents' perceptions toward tourism impacts and tourism development. The selected items then were screened by the members of the dissertation committee. They were asked to clarify the items and comment on whether the items were likely to be appropriate for evaluating residents' attitudes.

The survey instrument was comprised of eight sections including two sections (first and last section of the questionnaire) that asked for the respondents' socio-demographic and some background information (age, gender, education, occupation, number of years of residence, property ownership, etc.). The first section asked length of residency, property ownership, occupation, recreational activities they enjoy, and so forth. Most of the questions are closed-ended, and the participants were asked to respond to and indicate the degree to which they agreed or disagreed with each item. From the pilot testing procedure, it was found out that completing a questionnaire took an average of 15 minutes.

Following the conceptualization of place attachment by many researchers (e.g., Altman & Low, 1992; Kyle, et al, 2005; Mesch & Manor, 1998), which describes place attachment as a state of psychological well-being associated with a place, 12 items were included to measure the concept of community attachment. The types of statements used in this section were related to one's emotional/social bonding and identity related to their community. This scale has been tested by several researchers in the past (Doh, 2002; Kyle, et al., 2005; Mesch & Manor, 1998), and has been a reliable and valid measurement scale, yielding two dimensions.

Examples of questions include "I feel like I belong here," "I have an emotional bond with this place—it has meaning to me," "If I had an opportunity to move away from this community, I would," "I have developed good friendships in this community," and so on. Respondents were asked to respond based on a five-point Likert type scale of agreement ranging from 1 = strongly disagree, 2 = disagree, 3 = neither agree nor

disagree, 4 = agree, and 5 = strongly agree. Developed by Likert (1932), the Likert scale is one of the most popular scales in evaluating respondents' perceptions and attitudes.

The third section posed questions about residents' attitudes toward participation and involvement with local affairs. The questions were modified from the scale previously used by many other authors, including Swarbrooke (1999), Choi (2003), and John F. Kennedy School of Government (2003). Statements included were "I, as a resident, should be able to participate in local decision making processes," "I am interested in local tourism development activities," "I wish to be involved in local tourism decision making process," "I am able to influence decisions and policies related to local tourism development," "I would like to serve on a committee involved in local tourism development activities," and "In the past 12 months, I have been active in participating in city/public meetings about possible local tourism development." Respondents were asked to respond how much they agree or disagree with each item on a five-point scale ranging from "strongly disagree" to "strongly agree."

At the end, three items were added to ask residents about their actual participation in any local groups, clubs, organizations, and associations. These questions asked if they were participating in any of the groups, how many of them they were participating in, how many of them were related to tourism, how many of them were related to environmental conservation, and how many hours per month they served on them. If they did not participate in any of the groups, they were asked about the reason they were not participating.

Residents' value orientations regarding nature were conceptualized as a level of commitment to or endorsement of ecocentric values and anti-anthropocentric values. Based on the literature and modified from the original NEP scale, it is operationalized as expressed agreement with a set of 15 items measuring broad ecological beliefs (Dunlap & Van Liere, 1992; Dunlap, et al., 2000). The 15-item revised NEP scale was developed to represent a number of potential facets of an ecological worldview. These include recognizing limits to growth, anti-anthropocentrism, fragility of the balance in nature, rejection of human exceptionalism from ecological constraints, and the possibility of an ecological crisis (Dunlap, et al., 2000).

The statements that will be used in the survey include "We are approaching the limit of the number of people the earth can support," "human have the right to modify the natural environment to suit their needs," "when humans interfere with nature it often produces disastrous consequences," "Humans are severely abusing the environment," "The earth has plenty of natural resources if we just learn how to develop them," and so forth. The scale for the items is 5-point Likert scale ranging from "strongly disagree" to "strongly agree."

Section 5 is comprised of two parts with 33 items each. One part on the left asks respondents to rate how they feel things are in the community at the moment. On the other hand, the right part of the section asks how certain conditions will influence their feelings due to tourism development. It asks to rate their feelings on the degree of potential tourism related changes (1 = large change for worse, 3 = no change, 5 = large change for better). According to Brunson (1996), public attitude is closely related with

the concept of social acceptability. For this, this section asks how tourism would contribute to the each feature and how things might change if additional tourism occurs in their community.

The items included are, “appearance of the area,” “amount of human made noise,” “amount of human made structures developed in the area,” “small town atmosphere,” “amount of traffic on the road,” “employment opportunities,” “standard of living,” “community spirit among local residents,” “quality of recreational facilities/opportunities,” “safety from crime” and so forth. These items were selected based on literature regarding tourism impacts. Some items were added or dropped from the existing scale, considering local environmental and social characteristics and conditions.

Section 6 asked respondents about their attitudes toward future tourism development. Items were used to determine whether they were generally in favor of or opposed to tourism development in the area. Eight statements were developed from the review of literature, including "in general, new tourism development should be actively encouraged in my community," “my community can handle more tourism development,” “increased tourism would hurt my community’s quality of life,” “tourism should play a vital role in the future of Big Bend area,” “I support new tourism development in my community,” “tourism looks like the best way to help my community’s economy in the future,” and so on. Respondents were asked how much they agree or disagree with each item on a five-point scale ranging from “strongly disagree” to “strongly agree.”

The seventh section presented respondents with items on what types of tourism development might be desirable if tourism development did occur in their community. The 16 statements included "the development of more hotels," "the development of franchise businesses," "Development of businesses for bird-watching," "Developing new trails for walking or biking," "Providing facilities which would educate visitors about the nature," "Development of more golf courses," "Development of historic sites," and so on. Respondents were asked to rank the desirability of each statement on a five-point scale ranging from "strongly undesirable" to "strongly desirable."

The final section was intended to gather information about demographic characteristics of residents such as age, gender, family organization, education level, ethnicity, and income. This section consisted of seven questions including one asking about their concerns and suggestions related to developing tourism in their community.

The final version of instrument was reviewed by the dissertation committee members to achieve face validity and was pre-tested using 40 graduate students at Texas A&M University. After the final revision, the questionnaire was translated into Spanish and was distributed in both languages to all in the sample.

Data Analyses

All analyses in this study were conducted using SPSS 14.0 and AMOS 5.0 statistical software. In order to accomplish the study objectives and test the conceptual model fit, four steps of data analysis were conducted (Table 5).

The first step involves descriptive statistics of subject demographics. Respondents' demographic profile including average age, gender, length of residency and other characteristics were analyzed in this step. The second step involves general analyses to report a summary of the pattern of the data. This includes descriptive summaries for individual items as well as variables set for hypotheses testing. After some of the items being reverse coded to account for negative wording in some of the statements, the responses were summed to create composite scores for each variable.

Table 5
Steps for the Data Analyses

Step 1	Demographic Profile
Step 2	Descriptive Analysis
Step 3	Factor Analysis
Step 4	Hypotheses & Model Fit Testing

Comparison of results by regions (south county vs. north county) were performed in this descriptive analysis section. The third step is devoted to factor analysis to checkthe reliability and validity of the variables. Cronbach's alpha value was used as a standard to check the internal consistency of pre-determined items.

The last step is to test the hypotheses and examine the model fit. A Structural Equation Modeling approach was utilized to test the model and investigate the total effect of each variable on residents' attitudes toward tourism development. Figure 4 presents the model that was tested through SEM approach. The model has its theoretical basis in the community development theories, attachment theory, and builds on the work of earlier research on sustainable tourism development.

Significance of Study

Despite the important role that tourism has played in BB regional development, much of this has not been by planning or managing. Many communities in the BB lack community development or growth management plans that could ultimately help to sustain its natural environment, as well as communities and regional economies (Glick & Clark, 1998). Perhaps the best approach for the area is to move forward with efforts to develop integrated conservation and development plans. To begin the process of planning for community sustainability, development plans need to

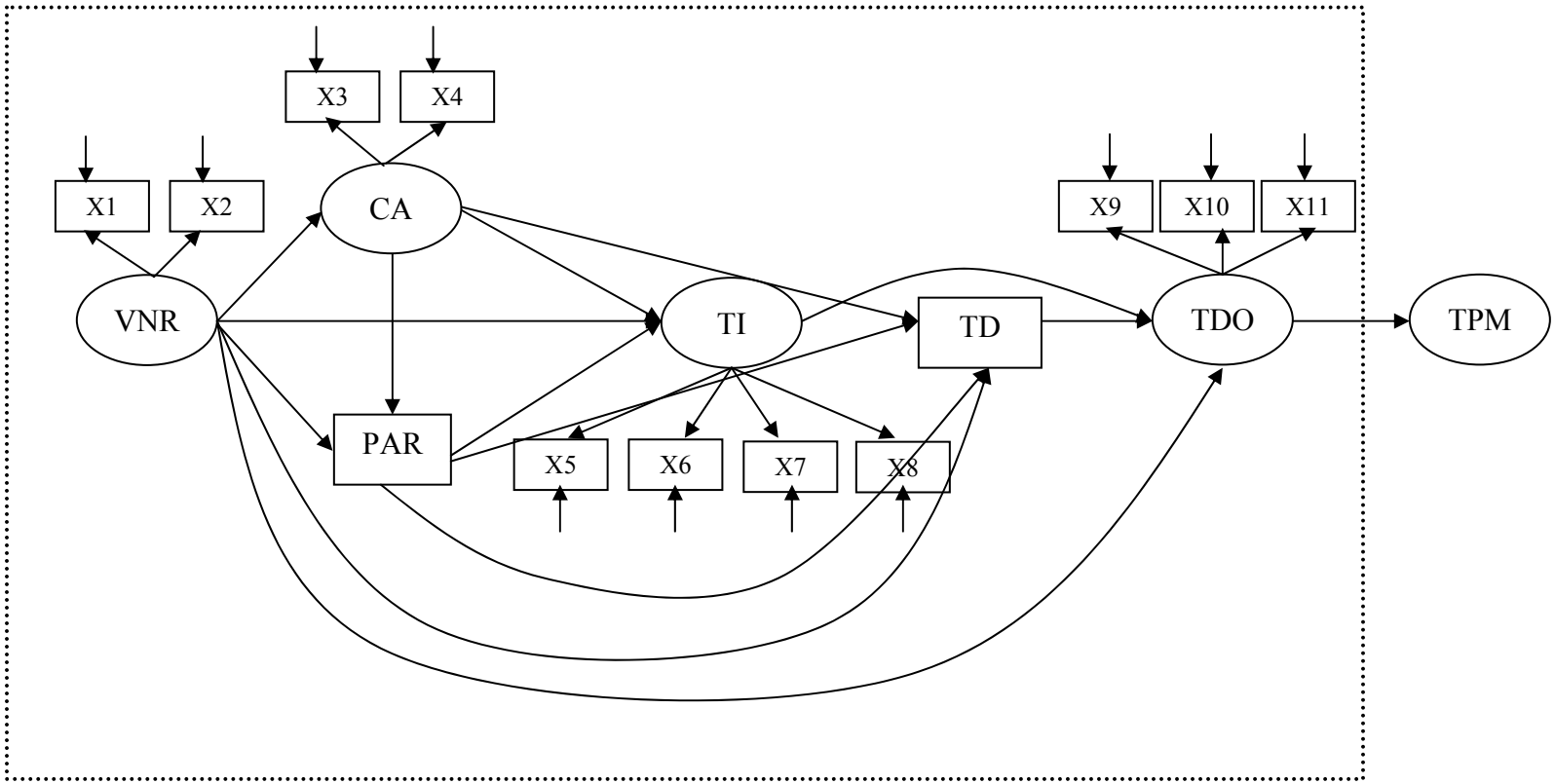

Fig 4. Theoretical Model for the SEM Approach (VNR=Value orientation toward nature, CA=Community attachment, PAR=attitude toward participation, TI=Attitude toward tourism impact, TD=Attitude toward tourism development, TO=Desirability of Tourism Development Options, TPM=Tourism Planning and Management implications, X1=Human abuse, X2=Human control, X3=Importance of community, X4=Commitment to community, X5=Environmental impacts, X6=Sociocultural impacts, X7=Economic impacts, X8=Infrastructural impacts, X9=Low impact development, X10= Medium impact development, X11=High impact development).

be created. This should be drafted with an understanding of local and regional environmental, economic, and social trends identified by the community. In this sense, research based on acceptable change framework is crucial for tourism management and development in the Big Bend region.

Contemporary public policies that address tourism development were often oriented toward supporting tourism sector interests and the needs of outsiders to the area, without considering the broader community development issues and the interests of local populations (Machlis & Field, 2000). According to Carmichael et al. (1996), residents' attitudes are important because they are rarely expressed in the political and development decision-making process. In addition, public tourism policies in the U.S. are dominated by marketing and promotional activities that result in increased tourist visits intended to provide expanded opportunities for tourism-sector businesses (Marcouiller, 1997). There is a need to extend the scope of study beyond this focus to balance growth and management, and to more effectively account for broader linkage to environmental, social, and economic sustainability of the residents and the host communities. This study will serve these needs and examine community attitudes toward tourism development in the isolated rural area of BB.

This study is also expected to contribute to resolving the potential conflicts between conservation and human uses of landscape in rural areas by providing knowledge on people's value orientations regarding nature and their personal attachment to their community. The literature indicates that the different characteristics and value orientations of residents' can influence their attitudes toward change, tourism induced

changes, and thus tourism development in their community. Specifically, the nature and trength of attachment to a community and their value orientations regarding nature may be an important determinant of how residents perceive potential impacts of a growing tourism industry, and may be important determinants of a successful coexistence between residents and the growing tourism industry (McCool & Martin, 1994).

A community is a group of people with similar interests living under and exerting some influence over the same government in a shared locality (Maser, 1997). Thus, understanding the group's attachment to their community, and how it may be affected is a critical consideration in the tourism planning process, and the relationship between attachment and tourism impacts perceived by residents needs to be investigated. Therefore, it is critical that these values be recognized and included in the planning process. A study such as this will provide a means for improving the way of life of residents of destination areas through sustainable management planning and through understanding of the characteristics of the residents.

Lastly, most studies were done in well established, popular tourism destinations, and these have been done repeatedly over time. BB has not been a popular study area for publication or research. As it is still remote and has relatively low visitation, it has experienced few problems to this point in time. However, it can be exposed to problems in the future if it is not well managed and developed without planning for the future. In addition, there have been a lot of small-scale studies focusing on people-place relationships in the face of change, such as remodeling a house or a workplace. However, large-scale studies evaluating the entire counties are not common. In addition,

Mason and Cheyne (2000) stressed that there are few studies on the perceived impacts of tourism either prior to major development or when tourism activity is not seen to be a significant economic area of activity for a region. Therefore, this study makes it possible to explore the attitudes of residents toward tourism prior to major development, helping to inform planning for the future in one of the tourism destinations.

CHAPTER IV

RESULTS

This chapter consists of five sections. The first section describes demographic profiles of the respondents. This was compared to the demographic profiles of the population of Brewster County to compare the respondents and non-respondents. The second section provides detailed analyses of each variable. These include descriptive statistics and reliability test. Results from factor analyses along with Cronbach's α will be reported in this section. The third and fourth sections report and discuss results of the hypotheses tests that were proposed in Chapter II. These include utilizing structural equation modeling and other statistical methods such as ANOVA.

Demographic Profile and Characteristics of the Respondents

The 258 subjects who participated in this study were selected from the residents of Brewster County, Texas. As noted earlier, the unit of analyses is divided by two regions; north and south counties. There are some characteristic distinctions between the two regions. North county includes towns of Alpine and Marathon, which are located on the northern part of the County, and closer to interstate highway 10. South county is

comprised of Study Butte and Terlingua, which are more isolated and smaller in population. A majority of the County's residents (77.8%, 7,179 in number) reside on the northern part, whereas the rest (22.2%, 2,047 in number) live scattered around the southern part of the county (U.S. Census, 2000).

Table 6 details descriptive statistics for the 258 responses that were used in the analysis. Overall response rate was 37.1%, with 48.4% from the north county and 51.6% from the southern part of the county. Of the 258 residents who responded, 51.5% were female and 48.5% were male participants, with an average age of 54 years. The youngest participant was 21 and the oldest participant was 92 years old. Respondents' marital status comprise of 34.5% single and 55.3% married, and 19.1% of all the respondents live with child(ren).

Of all the respondents, 42.8% (105 in number) said their highest level of education earned was a high school diploma and 54.7% (141 in number) had a bachelor's degree or higher. More than 37% (94 in number) of the respondents had engaged in graduate work or had a graduate degree. A majority (84.7 %) were Caucasian or Anglo Americans, while only 9.7% of the respondents considered themselves Hispanic or Mexican American. Median income range of the respondents was between $ 30,000 and $39,999. However, there were 26.1% who earn less than $ 19,999, and 10.2% who make more than $ 100,000 per year. Participants' gender composition, age, education level and ethnicity did not differ significantly by the region.

Table 6
Demographic Profile of the Respondents (n=258)

Variables	North County* (%)	South County* (%)	Total (%)
NUMBER OF PARTICIPANTS	120 (46.5)	138 (53.5)	258 (100.0)
MEAN AGE (SD)	54.1 (15.2)	54.1 (12.9)	54.1 (14.0)
GENDER			
Female	59 (50.9)	72 (53.3)	131 (52.2)
Male	57 (49.1)	63 (46.7)	120 (47.8)
MARITAL STATUS			
Single	36 (30.0)	52 (38.8)	88 (34.6)
Single with child(ren)	5 (4.2)	3 (2.2)	8 (3.1)
Married	42(35.0)	53 (39.6)	95 (37.4)
Married with child(ren)	23 (19.2)	17 (12.7)	40 (15.7)
Other (widowed, divorced)	14 (11.7)	9 (6.7)	23 (9.1)
EDUCATION			
Elementary (1-6)	2 (1.7)	1 (.8)	3 (1.2)
Junior High school (7-8)	0	1 (.8)	1 (.4)
High School (9-12)	17 (14.5)	26 (20.0)	43 (17.5)
Some College/College Degree	42 (36.2)	63 (48.5)	105 (42.7)
Some Graduate school/Graduate Degree	55 (47.4)	39 (30.0)	94 (38.2)
RACE/ETHNICITY			
American Indian	3 (2.6)	5 (3.7)	8 (3.2)
Asian	3 (2.6)	0	3 (1.2)
Black or African American	0	0	0
Caucasian or Anglo American	96 (83.5)	116 (85.9)	212 (84.8)
Hispanic or Mexican American	13 (11.3)	12 (8.9)	25 (10.0)
Other (Pacific Islander)	0	2 (1.5)	2 (.8)

Table 6 – Cont'd

Variables	North County (%)	South County (%)	Total (%)
ANNUAL HOUSEHOLD INCOME			
Less than $ 19,999	20 (18.3)	39 (33.3)	59 (26.1)
$ 20,000 to $29,999	15 (13.8)	13 (11.1)	28 (12.4)
$ 30,000 to $39,999	8 (7.3)	23 (19.7)	31(13.7)
$ 40,000 to $49,999	11 (10.1)	10 (8.5)	21 (9.3)
$ 50,000 to $59,999	12 (11.0)	8 (6.8)	20 (8.8)
$ 60,000 to $69,999	10 (9.2)	7 (6.0)	17 (7.5)
$ 70,000 to $79,999	7 (6.4)	3 (2.6)	10 (4.4)
$ 80,000 to $89,999	6 (5.5)	5 (4.3)	11 (4.9)
$ 90,000 to $99,999	6 (5.5)	0	6 (2.7)
$ 100,000 or more	14 (12.8)	9 (7.7)	23 (10.2)
Median		$ 30,000 to $39,999	

* North county participants consist of selected residents from towns of Alpine and Marathon. South county participants consist of selected residents from towns of Study Butte and Terlingua, Texas.

Overall Characteristics of the Respondents

This section describes characteristics of the respondents related to their lives in Brewster County. Two hundred fifteen (89.2%) people answered that they live in Brewster County through out the year (Table 7). On average, they have lived in the county for 16 years. The range of the years they lived in Brewster County is between .5

Table 7
Overall Characteristics of the Respondents and Definition of Community (n=258)

Variables	North County (%) (n=120)	South County (%) (n=135)	Total (%) (n=255)
LIVING IN BREWSTER COUNTY…			
Full time	118 (98.3)	110 (81.5)	228 (89.4)
Mean	17.6 years	14 years	16 years
Part time	2 (1.7)	25 (18.5)	27 (10.6)
Mean	7 months	6 months	6 months
DEFINITION OF COMMUNITY			
The neighborhood they live in	4 (3.3)	20 (15.2)	24 (9.5)
The city/town they live in	50 (41.7)	45 (34.1)	95 (37.7)
Brewster County	23 (19.2)	23 (17.4)	46 (18.3)
West Texas	37 (30.8)	9 (6.8)	46 (18.3)
Terlingua-Study Butte	0	11 (8.3)	11 (4.4)
South Brewster County	2 (1.7)	19 (14.4)	21 (8.3)
BBNP	2 (1.7)	2 (1.5)	4 (1.6)
Other	2 (1.7)	3 (2.3)	5 (2.0)
PROPERTY OWNERSHIP*			
Yes	99 (82.5)	110 (81.5)	209 (82.0)
No	21 (17.5)	25 (18.5)	46 (18.0)
OCCUPATION			
Tourism related	34 (29.1)	64 (47.4)	98 (38.9)
Nature tourism (parks, trails, etc.)	0	6 (4.4)	6 (2.4)
Historic/cultural	2 (1.7)	1 (.7)	3 (1.2)
Educational facilities (museum, etc.)	6 (5.1)	0	6 (2.4)
Recreational (rafting, hunting, etc.)	3 (2.6)	22 (16.3)	25 (9.9)
Visitor services (restaurants, lodging, etc.)	7 (6.0)	26 (19.3)	33 (13.1)
Other (arts, retail, repair, medical)	15 (12.8)	13 (9.6)	28 (11.1)
Not related to tourism	83(70.9)	71 (52.6)	154 (61.1)
Retired	27 (23.1)	22 (16.3)	49 (19.4)
Disabled	3 (2.6)	1 (.7)	4 (1.6)
Education	11 (9.4)	6 (4.4)	17 (6.7)

* Property includes real estate property(ies) such as house(s) and land(s).

Table 8
Reasons Respondents Moved to Brewster County

	Frequency (%)
Work Related	72 (29.6)
Employment, business	49 (20.1)
To attend school	16 (6.6)
Retirement	7 (2.9)
Natural conditions	127 (52.0)
Natural beauty (scenery, wilderness, pristine)	45 (18.4)
Climate, altitude	30 (12.3)
Peace & quiet, tranquil	21 (8.6)
Location (isolated, secluded, remote, solitude, etc.)	19 (7.8)
Topography (mountain, desert), particular ecosystem	12 (4.9)
Well-being related	96 (39.3)
To get out of big city	18 (7.4)
Life style (alternative, relaxed, slow-pace)	17 (7.0)
Rural, small town	14 (5.7)
Low population	13 (5.3)
Local people, good community	13 (5.3)
Quality of life	6 (2.5)
Health (allergies, arthritis, etc.)	6 (2.5)
Low cost of living	5 (2.0)
No pollution (clean air, fresh water)	4 (1.6)
Others	21 (8.7)
Family	7 (2.9)
Bought, owned property	6 (2.5)
Other	8 (3.3)

The categorization is based on open-ended responses.

and 87 years. On the other hand, 26 (10.8%) participants responded that they live in Brewster County for a certain period during a year, which is 6 months on average. The range of months for these part time residents was between 2 and 10 months.

Regarding where the residents conceive of their community, ninety people (37.6%) considered the city/town they live in as their community, while 19.0% (45 in number) thought West Texas and 17.7% (42 in number) thought of the entire Brewster County as their community. Interestingly, 27 respondents from south county answered that they consider Terlingua/Study Butte and south Brewster County as their community, whereas only 2 people answered this category from north county. Majority of the respondents (82.2%) own real estate property(ies) in Brewster County.

Of all the respondents, 95 (39%) had tourism related occupations where as 149 (61.1%) had non-tourism related occupations. Thirty three respondents (13.5%) had occupations related to visitor services such as lodging and food services, and 49 respondents (20.1%) were retirees. There were many more respondents from the south county (25.8%) who had tourism related jobs compared to north county participants (13.1%). The main reasons people moved to Brewster County were employment and business opportunities (20.1%), its natural beauty and scenery (18.4%), climate and altitude (12.3%), and peace and tranquility of the area (8.6%) (Table 8).

Table 9 shows that the primary recreational activity that the respondents participate in during their spare time was hiking (56.1%). Some go on sightseeing and travel around the area or in the National Park (15.2%), enjoy biking and MTB riding (11.1%), read or write (10.2%), enjoy boating or rafting on the river (9.8%), and camping (8.6%).

Table 9
Recreational Activities Participated in during Leisure Time

Primary Activities	Frequency (%)	Primary Activities	Frequency (%)
Hiking	145 (56.2)	Arts/crafts/painting	13 (5.0)
Travel/sightsee	41 (15.9)	Fishing	13 (5.0)
MTB/biking	29 (11.2)	Swimming	12 (4.7)
Boating/raft/canoe/river trip	27 (10.5)	Attend concerts/theater	11 (4.3)
Read/Write	27 (10.5)	Photographing	11 (4.3)
Camping	22 (8.5)	Golfing	9 (3.5)
Hunting	20 (7.8)	Rock hunting	8 (3.1)
Garden/plants	19 (7.4)	Shooting	8 (3.1)
Socializing	17 (6.6)	Off-road driving	8 (3.1)
Horseback riding	16 (6.2)	Picnic/BBQ	4 (1.6)
Bird/wildlife watching	16 (6.2)	Archeology/ecosystem study	4 (1.6)
Exercise/ball games/dance	14 (5.4)	Star watching	3 (1.2)
ATV/Motorcycling	14 (5.4)	Other	20 (7.8)

Table 10 includes results from statistical analyses of demographics of the respondents by region. It shows that the respondents from the north county and the south county were similar with respect to family organization ($p>.54$). There are slightly more respondents living with family than singles in both parts of the county, but the result is not significantly different.

However, the respondents differed significantly in their occupation ($p=.003$) and length of residency ($p=.00$). A higher proportion of respondants from the southern part of the county had tourism related occupations. North county respondents had lived in the county significantly longer (18 years, compared to 14 years for the south county participants) than the south county participants.

Table 10
Statistical Analysis of Demographic Characteristics of the Respondents by Region (n=258)

Variable	North County (%)	South County (%)	Pearson χ^2	Sig.
FAMILY ORGANIZATION				
Single	45 (39.1)	57 (42.9)	.041	P>.55
With family	70 (60.9)	76 (57.1)		
OCCUPATION			.215	P<.01*
Tourism-related	34 (29.1)	64 (47.4)		
Not tourism-related	83(70.9)	71 (52.6)		
	Mean (SD)		t-value	
LENGTH OF RESIDENCY	17.6 (15.5)	14.1 (12.3)	15.95	P<.00*

* Statistically significant at the .01 level (2-tailed).

Comparison of the Survey and Census Data

Like respondents in this study, the Brewster County population is comprised of 50.2% female and 49.8% male (U.S. Census, 2000). However, there were dissimilarities between the survey respondents and the Brewster County population in some aspects. Whereas the respondents' median age is 54 years, Brewster County residents' median age is 36 years (Table 11). In addition, the 2000 U.S. Census data showed that 43.6% (3,866 in number) of the Brewster County residents considered themselves to be Hispanic or Latino origin and 42.7% (3,786 in number) speak language other than

Table 11

Comparison between Survey and U.S. Census Data

	Survey Participants	Brewster Co. Census*
Median Age	54 years old	36 years old
% Hispanic Population	9.7	43.6
% High school Graduates or Higher	97.5	78.6
% Bachelors or Higher	54.7	27.7
% Property Ownership	81.1	59.5
Occupation		
% in Arts, Entertainment & Recreation	16.0	1.1
% in Accommodations & Food Services	12.6	5.6

* Data from 2000 U.S. Census.

English at home (U.S. Census, 2000). However, only 9.7% (23 in number) of the survey participants considered themselves Hispanic or Mexican American, and there were only 4 people who completed the survey in Spanish. Lastly, whereas 97.5% were high school graduates or higher and 54.7% of the respondents were Bachelors or higher, 78.6% of the actual Brewster County residents were high school graduates or higher and 27.7% of them were Bachelors or higher.

There were also differences in property ownership and occupation between the respondents and the county census. Eighty two percent of the respondents (n=198) own property(ies) in Brewster County, while there are only 59.5% (5,275in number) who

own home among Brewster County residents. Regarding respondents' occupation, there were 16% and 12.6% whose occupation was related to arts, entertainment & recreation, and accommodation & food services, respectively. However, there were only 1.1% and 5.6% of all the residents in Brewster county, whose occupation was related to arts, entertainment, & recreation, and accommodation & food services (U.S. Census, 2000).

To summarize the general characteristics of the survey participants compared to census data, they were somewhat older with higher levels of education and property ownership, and they appeared to under-represent the Hispanic population living in the area. Some research suggests that people who volunteer to participate in a survey are thought to differ systematically from those who do not (Dunne, et al., 1997). In general, non-responders are likely to be male, older, live in cities, and have lower educational attainment than responders, while marital status, employment status, and ethnicity appear not to be consistently related to non-response (Dunne, et al., 1997). Although this study is not consistent with the previous finding that ethnicity is not the factor that affect participation, the data collected suggest that more educated and affluent residents were more likely to participate in the studies that involve possible benefits for them.

Descriptive Statistics and Data Reduction Analyses

This section presents descriptive summaries of the variables as well as the data reduction analysis for each variable. Descriptive statistics include mean ratings,

standard deviations, and composite mean value. Scores of negatively stated items for all the scales except the NEP scale were reversed (1 = 5, 2 = 4, 4 = 2, and 5 = 1) to generate composite mean values for consistency of direction in interpreting the results. For example, a higher composite mean value in the community attachment items indicates that the respondents were more attached to their community. Likewise, higher grand mean values in tourism development items indicate that residents had more positive attitudes towards tourism development.

Value Orientations regarding Natural Environment

The value orientations toward natural environment items were designed to measure respondents' environmental attitudes toward natural resources (Table 12). The New Ecological Paradigm (NEP) scale by (Dunlap, et al., 2000) was used to measure this concept. Table 12 shows that grand mean values for each part of the county were moderately high with 3.53 (north county) and 3.73 (south county), and the overall mean value was 3.63 (neutral to somewhat agree). It indicates that the respondents had a fairly high level of concern about the natural environment and environmental issues.

Responses were significantly different between respondents from the north and south parts of the county ($p<.01$), with the exception of three, of the fifteen, items 'We are approaching the limit of the number of people the earth can support,' 'The earth has plenty of natural resources if we just learn how to develop them,' and 'The balance of

Table 12

Descriptive Statistics of Value Orientations Regarding Nature
(New Ecological Paradigm) Items

Items	North County (n=116)	South County (n=123)	Total (n=239)	F	Sig.
		Mean (SD)			
1. We are approaching the limit of the number of people the earth can support	3.56 (1.22)	3.79 (1.23)	3.68 (1.23)	3.02	P>.08
2. Humans have the right to modify the natural environment to suit their needs	2.84 (2.18)	2.46 (1.16)	2.64 (1.74)	4.22	P<.05 **
3. When humans interfere with nature it often produces disastrous consequences	3.77 (1.19)	4.10 (1.12)	3.94 (1.17)	5.30	P<.05 **
4. Human ingenuity will insure that we do NOT make the earth unlivable	2.80 (1.11)	2.38 (1.14)	2.59 (1.14)	9.78	P<.01 *
5. Humans are severely abusing the environment	3.75 (1.16)	4.03 (1.16)	3.90 (1.16)	6.06	P<.05 **
6. The earth has plenty of natural resources if we just learn how to develop them	3.28 (1.20)	3.03 (1.44)	3.15 (1.33)	3.86	P>.05
7. Plants and animals have as much right as humans to exist	3.68 (1.31)	4.11 (1.17)	3.90 (1.25)	9.60	P<.01 *
8. The balance of nature is strong enough to cope with the impacts of modern industrial nations	2.20 (1.01)	2.02 (1.13)	2.10 (1.08)	3.36	P>.06
9. Despite our special abilities humans are still subject to the laws of nature	4.26 (.97)	4.56 (.62)	4.41 (.82)	8.09	P<.01 *
10. The so-called “ecological crisis” facing humankind has been greatly exaggerated	2.49 (1.15)	2.05 (1.23)	2.26 (1.21)	11.27	P<.01 *
11. The earth is like a spaceship with very limited room and resources	3.55 (1.16)	3.83 (1.11)	3.69 (1.14)	5.24	P<.05 **

Table 12 – Cont'd

Items	North County (n=116)	South County (n=123)	Total (n=239)	F	Sig.
		Mean (SD)			
12. Humans are meant to rule over the rest of nature	2.66 (1.28)	2.11 (1.30)	2.38 (1.32)	13.61	P<.01 *
13. The balance of nature is very delicate and easily upset	3.78 (1.09)	4.04 (1.15)	3.92 (1.13)	4.79	P<.05 **
14. Humans will eventually learn enough about how nature works to be able to control it	2.34 (1.05)	2.05 (1.13)	2.19 (1.10)	5.57	P<.05 **
15. If things continue on their present course, we will soon experience major ecological catastrophe	3.40 (1.14)	3.84 (1.15)	3.62 (1.16)	12.34	P<.01 *
GRAND MEAN	3.53*	3.73*	3.63*		

Scale: 1=Strongly disagree, 3=Neutral and 5=Strongly agree

* Grand mean values were calculated after recoding items 8, 10, 12, and 14 (negatively stated items) in an opposite direction.

nature is strong enough to cope with the impacts of modern industrial nations.' Residents from both regions agreed on the fact that the rights of nature is as important as the rights of human, but value orientations of residents from south county were more environmentally oriented, than respondents from the north. Their scores consistently represented more concern about human abuse and lack of human ability to control nature.

Table 13.

Factor Analysis of Attitude toward Nature (New Ecological Pardigm) Items

	Factor Loading	Eigen Value	% of variance	Cronbach's A
FACTOR 1: Human Abuse		6.08	42.5	.72
Humans are severely abusing the environment	.80			
The balance of nature is very delicate and easily upset	.77			
When humans interfere with nature it often produces disastrous consequences	.75			
If things continue on their present course, we will soon experience major ecological catastrophe	.74			
The earth is like a spaceship with very limited room and resources	.73			
Plants and animals have as much right as humans to exist	.71			
We are approaching the limit of the number of people the earth can support	.58			
Despite our special abilities humans are still subject to the laws of nature	.55			

Table 13. Cont'd

	Factor Loading	Eigen Value	% of variance	Cronbach's A
FACTOR 2: Human Control		1.63	10.9	.78
The balance of nature is strong enough to cope with the impacts of modern industrial nations	.78			
Humans will eventually learn enough about how nature works to be able to control it	.77			
The earth has plenty of natural resources if we just learn how to develop them	.75			
Humans are meant to rule over the rest of nature	.73			
Human ingenuity will insure that we do NOT make the earth unlivable	.69			
The so-called "ecological crisis" facing humankind has been greatly exaggerated	.69			
Humans have the right to modify the natural environment to suit their needs	.51			

To assess the construct validity and to reduce the items into a smaller number of dimensions, a factor analysis (principal components analysis) with direct oblim rotation was performed on these 15 items (Table 13). Factor analysis is useful to test construct validity of a scale. Factor analysis groups items that are highly correlated with each other. If the grouping of items is measuring one underlying concept, then one factor should be extracted. The threshold level for unidimensionality is 50% of the variance

explained. Also, a factor loading score for each item should be greater than .40 (Hair, et al., 1998) for it to be considered significant.

Initially, MSA (Measures of Sampling Adequacy) value was considered in order to ensure whether all the items were adequate for factor analysis (Stevens 1996). The result showed that the correlation coefficient for all the items were greater than .85 and were adequate for inclusion in terms of performing factor analysis. The analysis extracted factors at Eigen value 1 or higher.

The 15 NEP items loaded on two factors and accounted for 51.5% of the variance (Table 13). Factors were labeled based on items that loaded high and the common characteristics of grouped items. Thus, factors were labeled human abuse (Factor 1) and human control (Factor 2). The first dimension appears to represent attitudes related to human abuse of nature and consequent ecological crisis. The second dimension represents attitudes related to human control and a more human centered view of nature. The two factors explained 40.6%, and 10.9% of the variance (51.5% total), respectively.

Table 13 shows that factor loading scores on these factors ranged from .51 to .80 (absolute values) and all the loading scores were greater than .50. This indicates good correlations between the items and the latent variable that represents them. Cronbach's α coefficients were also analyzed to check the internal consistency of the scale. As shown in the table, each was above the satisfactory level (above .70) (Hair, et al., 1998).

Community Attachment

The community attachment items (5-point scale) were designed to measure levels of attachment to the community of residence perceived by the respondents. Descriptive analysis shown in Table 14 revealed that composite mean values for each region are moderately high with 4.13 (north county) and 4.25 (south county) (mean = 'some what agree' to 'agree' with the attachment items), and the overall mean value was 4.19 after recoding. Based on the measures, respondents showed a moderately high level of attachment to the community regardless of the regions they live in. While most items showed similarly high mean values, respondents rated the highest mean score of 4.40 for "What happens in my community is important to me," and the lowest mean score of 1.91 for "If I had an opportunity to move away from this community, I would" (strongly disagree to somewhat disagree). Using a composite score of all items, respondents from south had a slightly higher attachment, but it was not statistically significant ($p>.13$).

Exploratory factor analysis (principal component analysis) was performed on the 12 items of the community attachment scale to help determine if these 12 items reliably measure people's community attachment and provide some construct validity for use as a single variable. A reliability score was calculated using Cronbach's α value. These results are presented in Table 15. Unlike the past research on place attachment, the results indicated that community attachment items fall into one dimension with the lowest factor loading score of .58 on "This community is an ideal place to live" item.

Table 14
Descriptive Statistics of Community Attachment Items

Items	North County (n=120)	South County (n=138)	Total (n=258)	F	Sig.
		Mean (SD)			
1. Overall, I am very attached to this community	4.25 (.86)	4.47 (.75)	4.36 (.81)	5.12	P<.05**
2. This community is very special to me	4.25 (.93)	4.48 (.78)	4.37 (.86)	5.54	P<.05**
3. I have an emotional bond with this community – it has meaning to me	4.14 (.89)	4.36 (.87)	4.25 (.88)	5.21	P<.05**
4. I feel like I am an important part of my community	3.82 (.91)	3.97 (.92)	3.90 (.92)	1.88	P>.17
5. If I had an opportunity to move away from this community, I would	2.01 (1.04)	1.83 (1.01)	1.91 (1.03)	2.09	P>.15
6. I am interested in what is going on in my community	4.11 (.82)	4.22 (1.01)	4.17 (.82)	.89	P>.34
7. I have developed good friendships in this community	4.23 (.97)	4.47 (.73)	4.35 (.87)	3.84	P>.05
8. What happens in my community is important to me.	4.32 (.80)	4.47 (.68)	4.40 (.74)	2.75	P>.10
9. I am proud to live in this community	4.24 (.83)	4.37 (.82)	4.31 (.83)	3.89	P<.05**
10. I am willing to invest my talent or time to make my community an even better place to live	4.15 (.85)	4.16 (1.01)	4.16 (.93)	.10	P>.75
11. This community is an ideal place to live	3.96 (.97)	3.68 (.96)	3.82 (.98)	2.07	P>.15
12. I feel commitment to this community	4.04 (.87)	4.19 (.87)	4.12 (.87)	2.96	P>.08
GRAND MEAN	4.13*	4.25*	4.19*	2.23	P>.13

* Grand mean values were calculated after recoding item 5 (negatively stated item) in an opposite direction.
** Statistically significant at the .05 level.

Table 15

Factor Analysis of Community Attachment Items

	Factor Loading	Eigen Value	% of variance	Cronbach's α
Community Attachment		6.93	63.0	.94
Overall, I am very attached to this community	.87			
This community is very special to me	.87			
I feel commitment to this community	.87			
What happens in my community is important to me.	.84			
I have an emotional bond with this community – it has meaning to me	.84			
I am proud to live in this community	.82			
I am interested in what is going on in my community	.79			
I have developed good friendships in this community	.77			
I feel like I am an important part of my community	.72			
I am willing to invest my talent or time to make my community an even better place to live	.71			
This community is an ideal place to live	.58			

The one dimension extracted explained 63.0% of the variance with 11 items, measuring respondents' sentiment for the community they live in. Cronbach's α coefficient was .94, which indicates a strong reliability of the items intended to measure respondents' community attachment level.

One item (If I had an opportunity to move away from this community, I would) was dropped after factor analysis, since including this item droped factor loading scores of other items and the Cronbach's coefficient α. After excluding this item, factor loadings increased by .04 on average. In addition, feeling like moving away might not be related to their community attachment level, since some could still feel like moving away for some other reasons although they are attached to their community.

Attitude towards Participation

The attitude towards community participation scale (5-point Likert type scale) was designed to measure respondents' perceptions of local decision-making processes and their involvement with the community affairs. Results shown in Table 14 indicate that grand mean values for both parts of the county were close to the mid point of the response scale at 3.20 (north county) and 3.32 (south county), within an overall mean value of 3.26 (neutral to somewhat agree). The scores indicate that the respondents were

Table 16
Descriptive Statistics of Attitude towards Community Participation Items

Items	North County (n=120)	South County (n=138)	Total (n=258)	F	Sig
		Mean (SD)			
I, as resident, should be able to participate in local decision making process	4.12 (.87)	4.36 (.82)	4.24 (.85)	8.62	P<.01*
I am interested in local tourism development activities	3.79 (1.04)	3.68 (1.16)	3.73 (1.10)	.48	P>.48
I wish to be involved in local tourism decision making process	3.43 (1.01)	3.39 (1.15)	3.41 (1.08)	.17	P>.67
I am able to influence decisions and policies related to local tourism development activities	2.86 (1.08)	2.98 (1.21)	2.92 (1.15)	.91	P>.34
I would like to serve on a committee involved in local tourism development activities	2.82 (1.13)	2.83 (1.25)	2.83 (1.19)	.17	P>.67
In the past 12 months, I have been active in participating in city/public meetings about possible local tourism development**	2.16 (1.21)	2.67 (1.46)	2.42 (1.36)	7.07	P<.01*
GRAND MEAN	3.20	3.32	3.26		

Scale: 1=Strongly disagree, 3=Neutral, and 5=Strongly agree
* Statistically significant at the .01 level by the region.
** It is possible that there may not have been any meetings to participate in.

moderately positive in their attitudes toward community participation and involvement with local affairs regardless of the region in which they lived. While most items were scored as higher than 'neutral', respondents had lower scores for items like "I am able to influence decisions and policies related to local tourism development activities," "I

would like to serve on a committee involved in local tourism development activities," and "In the past 12 months, I have been active in participating in city/public meetings about possible local tourism development" (ratings between 3 and 4, which are values of neutral to somewhat disagree). This could mean that respondents are interested in local tourism development activities and they think they should be able to participate in decision-making process. However, they do not necessarily care about serving on committees or organizations, nor do they think they are able to influence decisions and policies related to local tourism development activities.

Responses were not significantly different between north and south counties ($p>.32$) when analyzed by the composite score. However, ratings on the item of " I, as resident, should be able to participate in local decision making process" differed significantly between north and south at the .01 level.

Further investigation of this variable revealed that more than half of the respondents (55.2%, 132 in number) belong to an average of 2 to 3 local clubs, groups, organizations or associations, and one of the 2 or 3 organizations to which they belonged was a tourism related or environmental conservation group (Table 17). On average, they devote 12 hours per month to serve in the group(s) they are involved in. Some people do not participate in the clubs, groups, organizations or associations because of time constraints (36.3%) or because they are just not interested in participating (19.6%).

A principal component analysis was performed on the 6 attitudes towards community participation items for the purpose of data reduction. A reliability score was

Table 17
Descriptive Statistics of Answers from Open-ended Questions Regarding Attitude towards Community Participation Items

Variables	North County (n=118) (%)	South County (n=135) (%)	Total (n=253) (%)
BELONG TO LOCAL ORGANIZATIONS			
Yes	68 (57.6)	71 (52.6)	139 (54.9)
Number of groups involved in (Mean)	2.8	2.6	2.7
Number of tourism groups (Mean)	.8	1.4	1.1
Number of environmental conservation groups (Mean)	.6	1.0	.8
Hours devoted to serve in the groups (Mean)	9.7 (11.0)	14.4 (16.4)	12.0 (14.1)
No	50 (42.4)	64 (47.4)	114 (45.1)
Time constraint	20 (40.0)	26 (40.6)	46 (43.0)
No interest	8 (16.0)	14 (21.9)	22 (20.6)
Lack of information	4 (8.0)	10 (15.6)	14 (13.1)
Lack of enthusiasm	6 (12.0)	7 (10.9)	13 (12.1)
Disabled/health problem	4 (8.0)	2 (3.1)	6 (5.6)
Retired	3 (6.0)	0	3 (2.8)

calculated using Cronbach's α value. As expected, the result indicated that attitude towards community participation items fall into one dimension with the lowest factor loading score of .57 on "I, as resident, should be able to participate in local decision-making process" item (Table 18). One dimension explained58.2% of the variance. Cronbach's α coefficient was .86, which indicates a strong reliability of the items measuring respondents' community attitude toward local participation.

Potential Tourism Impacts

As mentioned in the previous chapter, the tourism impacts scale was adopted from the literature with minor modifications to make it more applicable to the local situation. Descriptive statistics for the tourism induced changes items are presented in Table 19. The tourism induced change items were measured using a five point Likert type scale. A score above 3 indicates a perception that tourism will provide change for the better on the corresponding attribute, a score of 3 would be neutral and a score below 3 indicates perceived change for the worse on the attribute.

Respondents had different attitudes toward different types of tourism impacts (Table 19). "Amount of litter and other trash" scored the lowest with an overall mean score of 1.89. The item with highest mean value was "Money generated by local businesses (X=3.82)." Respondents were more positive on items such as "employment opportunities (X=3.62)," "Amount of entertainment (X=3.49)," "Amount of recreational facilities (X=3.45)," "quality of employment (X=3.27)," "Quality of health and medical services (X=3.27)," "quality of public services (X=3.24), and "personal income (X=3.23)." That is, Brewster County residents expect these things to be improved due to future tourism development in their community. Respondents expected recreational and public facilities would be diversified and improved when tourism is developed in their community.

However, they perceived possible negative outcomes related to the environment, such as "amount of litter and other trash (X=1.89)," "amount of human made noise (X=2.02)," amount of traffic in the area (X=2.06)," "the peace and tranquility of the area (X=2.09)," "quality of natural environment (X=2.16)," and "crime rate (X=2.17)." They perceived that future tourism development could bring about these kinds of negative physical changes into their community.

Table 18
Unidimensionality Test of Attitude Toward Community Participation Items

	Factor Loading	Eigen Value	% of variance	Cronbach's α
ATTITUDE TOWARD PARTICIPATION		3.49	59.0	.86
I, as resident, should be able to participate in local decision making process	.57			
I am interested in local tourism development activities	.76			
I wish to be involved in local tourism decision making process	.87			
I am able to influence decisions and policies related to local tourism development activities	.81			
I would like to serve on a committee involved in local tourism development activities	.83			
In the past 12 months, I have been active in participating in city/public meetings about possible local tourism development	.74			

Table 19
Descriptive Statistics for Tourism Impact Items

Items	North County (n=116)	South County (n=119)	Total (n=235)
		Mean (SD)	
Money generated by local businesses	3.70 (.77)	3.94 (.59)	3.82 (.70)
Employment opportunities	3.51 (.82)	3.73 (.72)	3.62 (.78)
Amount of entertainment opportunities	3.56 (.84)	3.42 (.83)	3.49 (.83)
Amount of recreational facilities	3.57 (.80)	3.34 (1.08)	3.45 (.90)
Quality of employment	3.19 (.75)	3.34 (.82)	3.27 (.79)
Quality of health and medical services	3.24 (.93)	3.32 (1.04)	3.27 (.99)
Quality of public services	3.23 (.93)	3.26 (1.08)	3.24 (1.01)
Your personal income	3.11 (.57)	3.36 (.72)	3.23 (.66)
Amount of educational opportunities	3.31 (.83)	3.10 (.84)	3.20 (.84)
Access to transportation	3.28 (.95)	3.08 (1.07)	3.18 (1.01)
Property value	3.16 (1.18)	2.96 (1.37)	3.06 (1.28)
Conservation of local cultural assets	3.27(.87)	2.82 (1.17)	3.04 (1.05)
Understanding of different people and cultures	3.12 (.85)	2.84 (.95)	2.98 (.91)
Relationship between residents and tourists	3.04 (.90)	2.67 (1.06)	2.85 (1.00)
Community spirit among local residents	2.94 (.92)	2.54 (1.08)	2.74 (1.02)
Overall quality of life	2.96 (1.03)	2.48 1.15)	2.72 (1.11)
Water quality	2.62 (.90)	2.45 (1.040	2.54 (.98)
Cost of living in the area	2.53 (.99)	2.50 (1.17)	2.52 (1.08)
Waste management	2.46 (.95)	2.45 (1.17)	2.46 (1.06)

Table 19 – Cont'd

Items	North County (n=116)	South County (n=119)	Total (n=235)
		Mean (SD)	
Appearance of the area	2.63 (1.09)	2.29 (1.27)	2.46 (1.20)
Personal safety and security	2.58 (.91)	2.29 (1.07)	2.43 (1.00)
Amount of wildlife	2.39 (.90)	2.22 (1.12)	2.31 (1.01)
Amount of human made structures developed in the area	2.65 (1.12)	1.93 (1.15)	2.29 (1.19)
Small town atmosphere	2.53 (1.00)	2.02 (.92)	2.28 (.99)
Number of people in the area	2.47 (1.18)	2.06 (1.18)	2.27 (1.19)
Amount of natural open space	2.42 (.97)	2.09 (.92)	2.25 (.96)
Air quality	2.31 (.83)	2.14 (1.04)	2.23 (.94)
Crime rate	2.32 (.85)	2.02 (.93)	2.17 (.91)
The peace and tranquility of the area	2.26 (.87)	1.92 (1.11)	2.09 (1.01)
Amount of traffic in the area	2.18 (.93)	1.95 (1.11)	2.06 (1.03)
Quality of natural environment	2.35 (.87)	1.97 (.93)	2.16 (.92)
Amount of human made noise	2.35 (.94)	1.68 (.74)	2.02 (.91)
Amount of litter and other trash	2.04 (.87)	1.74 (.88)	1.89 (.88)

Scale: 1 = Tourism will worsen current status, 3 = Tourism will not change at all, and 5 = Tourism will improve current status

Respondents' hope for economic development due to tourism was also moderately high. They perceived that there would be improvements generated by local

Table 20
Factor Analysis of Tourism Impact Items

	Factor Loading	Eigen Value	% of variance	Cronbach's α
FACTOR 1: Environmental Impacts		14.52	28.2	.94
Amount of human made noise	.80			
Amount of traffic in the area	.75			
Quality of natural environment	.75			
Amount of natural open space	.74			
Number of people in the area	.74			
The peace and tranquility of the area	.74			
Amount of human made structures developed in the area	.71			
Waste management	.68			
Water quality	.67			
Appearance of the area	.62			
Amount of litter and other trash	.61			
Air quality	.59			
Amount of wildlife	.59			
FACTOR 2: Sociocultural Impacts		4.14	13.6	.90
Personal safety and security	.76			
Community spirit among local residents	.73			
Small town atmosphere	.67			
Crime rate	.65			
Understanding of different people and cultures	.61			
Relationship between residents and tourists	.60			
Overall quality of life	.57			

Table 20 –Cont'd

	Factor Loading	Eigen Value	% of variance	Cronbach's α
FACTOR 3: Infrastructure Impacts		3.17	13.2	.83
Quality of health and medical services	.83			
Amount of entertainment opportunities	.74			
Quality of public services	.69			
Access to transportation	.63			
Amount of educational opportunities	.59			
Amount of recreational facilities	.59			
FACTOR 4: Economic Impacts		2.63	12.7	.70
Your personal income	.79			
Property value	.78			
Quality of employment	.69			
Employment opportunities	.67			
Money generated by local businesses	.65			
Cost of living in the area	.47			

businesses, employment opportunities, quality of employment, and their personal income due to tourism development, but also felt that there would be an increase in the

cost of living in the area. They expected that property value would also be increased. For this, 116 respondents (49.4%) answered that this is a positive change, and the rest (35.7%, 84 in number) responded that it is negative.

To assess the construct validity and to reduce the items into a small number of dimensions, a factor analysis (principal components analysis) with Varimax rotation was performed on these 33 items. MSA (Measures of Sampling Adequacy) value indicated that all the items were acceptable for factor analysis (correlation coefficient for all the items were greater than .81)

The 33 items from the questionnaire resulted in four factors and accounted for 64.0% of the variance (Table 20). Factors were labeled based on highly loaded items and the common characteristics of items were grouped together. Thus, factors were labeled as environmental impacts (Factor 1), sociocultural impacts (Factor 2), infrastructure impacts, (Factor 3) and economic impacts (Factor 4). The environmental impacts dimension included items related to physical changes due to the possible introduction of tourism in the community. The sociocultural impacts dimension represented residents' attitudes toward social and cultural changes that could be induced by future tourism development.

The third factor (infrastructure impacts) represented respondents' attitude towards public or private infrastructure that could be introduced through tourism development. The economic impacts dimension includes items related to tourism induced change through economic aspects, such as changes in residents' personal

income, employment, property value, and cost of living. The four factors explained 28.2%, 13.6%, 13.2%, and 12.7% of the variance, respectively.

Table 20 also indicates that factor loading scores on these factors ranged from .47 to .83 (absolute values) and most loadings were greater than .50. This indicates a good correlation between the items and the factor they belong to. As shown in the table, Cronbach's α values were above satisfactory level (above .70) on all the dimensions.

According to the results from ANOVA, responses were significantly different between north and south counties in environmental and sociocultural impact factors ($p<.01$). Respondents from southern part of the county were more sensitive about the environmental and sociocultural impacts compared to the respondents from northern part of the county. However, the answers did not differ significantly on infrastructure and economic impact factors ($p>.13$, $p>.19$). All the respondents, regardless of what part of the county they live, expected that most of the infrastructure and economic impacts would be positive except for increased cost of living in the area.

In the scale to measure residents' tourism impact, respondents were also asked to rate perceptions on current status of these impact items. That is, the respondents rated each item twice, first to express their perceptions on current state of each item, and once again to express how they would feel tourism might impact each item. The differences between these ratings were compared by subtracting the score ratings of current conditions from the tourism impact ratings, and were expressed as mean scores. Table 21 indicates that respondents felt that peace and tranquility of the area (difference of

Table 21
Differences between Current Condition and How Tourism Development Would Affect These Conditions

Items	North County (n=116)	South County (n=119)	Total (n=235)	Sig. by region
		Mean (SD)		
FACTOR 1: Environmental Impacts				P< .05**
The peace and tranquility of the area	-2.00	-2.55	-2.28	
Amount of natural open space	-1.91	-2.31	-2.11	
Quality of natural environment	-1.71	-2.23	-1.97	
Amount of wildlife	-1.82	-1.49	-1.65	
Amount of human made noise	-1.12	-2.03	-1.58	
Amount of traffic in the area	-1.38	-1.71	-1.55	
Number of people in the area	-1.19	-1.71	-1.45	
Amount of litter and other trash	-1.30	-1.52	-1.41	
Air quality	-1.52	-1.16	-1.33	
Appearance of the area	-1.24	-1.43	-1.33	
Amount of human made structures developed in the area	-.67	-1.24	-.96	
Water quality	-1.18	-.54	-.85	
Waste management	-.69	-.04	-.36	
FACTOR 2: Sociocultural Impacts				P< .01*
Small town atmosphere	-1.65	-2.25	-1.95	
Crime rate	-1.64	-2.11	-1.88	
Personal safety and security	-1.61	-1.97	-1.79	
Overall quality of life	-1.06	-1.84	-1.45	
Community spirit among local residents	-.77	-1.42	-1.10	
Relationship between residents and tourists	-.67	-.83	-.75	
Understanding of different people and cultures	-.30	-.89	-.60	
Conservation of local cultural assets	-.06	-.73	-.40	

Table 21 – Cont'd

Items	North County (n=116)	South County (n=119)	Total (n=235)	Sig. by region
		Mean (SD)		
FACTOR 3: Infrastructure Impacts				P< .05**
Quality of health and medical services	.67	1.19	.93	
Access to transportation	.73	.90	.82	
Amount of entertainment opportunities	.59	.29	.44	
Quality of public services	-.22	.49	.14	
Amount of educational opportunities	-.44	.43	.00	
Amount of recreational facilities	.16	-.66	-.26	
FACTOR 4: Economic Impacts				P < .05**
Employment opportunities	1.08	1.45	1.27	
Money generated by local businesses	.66	1.17	.91	
Quality of employment	.57	.78	.67	
Your personal income	-.02	.34	.16	
Property value	.15	-.13	.01	
Cost of living in the area	-.29	-.49	-.39	

* Significant at the .01 level (2-tailed)

** Significant at the .05 level (2-tailed)

- 2.28 on 5-point Likert type scale) will get worse, the amount of natural open space (difference of – 2.11) will decrease, quality of natural environment (difference of -1.97) will get worse, small town atmosphere (difference of -1.95) will be lost, and personal

safety and security (difference of -1.88) would get worse due to tourism development in their area.

On the other hand, they expected that employment opportunities (difference of 1.27) would increase, quality of health and medical services (difference of .93) will improve, money generated by local businesses (difference of .91) would increase, and access to transportation (difference of .82) such as airport and highways will improve. This result differed by region significantly on all four factors at least at the .05 level. South county residents were more sensitive to net tourism impacts than the north county residents were. Respondents from south county felt that net changes induced by tourism would be more detrimental for their environment and sociocultural conditions than the north county residents felt. On the other hand, they felt the same change more beneficial for their economy and infrastructural development compared to how the north county respondents felt.

Attitude towards Tourism Development

Attitudes toward tourism development were measured using an eight-item, five point Likert type scale. The descriptive statistics for these items are presented in Table 22. Descriptive statistics revealed that respondents from both parts of the county rated higher on positive statements and lower on negative statements (grand mean = 3.31), indicating consistency in the direction of their attitude. Overall, they had a moderately

Table 22
Descriptive Statistics of Attitude towards Tourism Development Items

Items	North County (n=116)	South County (n=123)	Total (n=239)	F	Sig.
		Mean (SD)			
1. Overall, the benefits of tourism development will outweigh its costs	3.25 (1.03)	3.03 (1.24)	3.14 (1.14)	4.31	P<.05* *
2. In general, new tourism development should be actively encouraged in my community	3.42 (1.09)	3.18 (1.29)	3.30 (1.20)	4.49	P<.05* *
3. My community can handle more tourism development	3.48 (1.03)	3.36 (1.25)	3.42 (1.15)	1.49	P>.22
4. Increased tourism would hurt my community's quality of life	2.88 (1.16)	3.07 (1.37)	2.98 (1.27)	2.14	P>.14
5. Tourism should play a vital role in the future of the BB area	3.75 (1.04)	3.51 (1.24)	3.63 (1.15)	3.93	P<.05* *
6. I support new tourism development in my community	3.53 (1.13)	3.25 (1.33)	3.38 (1.24)	4.02	P<.05* *
7. Tourism looks like the best way to help my community's economy in the future	3.51 (1.13)	3.58 (1.19)	3.55 (1.16)	.21	P>.64
8. Tourism development in my community will benefit me or some member of my family	3.01 (1.23)	3.11 (1.47)	3.06 (1.36)	.07	P>.79
GRAND MEAN	3.38 *	3.24*	3.31*		

Scale: 1 = Strongly disagree, 3 = neutral, and 5 = Strongly agree.
* Grand mean values were calculated after recoding item 4 (negatively stated item) in an opposite direction.
** Statistically significant at the .05 level.

Table 23
Unidimensionality Check on Tourism Development Items

	Factor loading	Eigen Value	% of variance	Cronbach's α
TOURISM DEVELOPMENT		5.65	71.5	.84
I support new tourism development in my community	.93			
In general, new tourism development should be actively encouraged in my community	.92			
My community can handle more tourism development	.88			
Overall, the benefits of tourism development will outweigh its costs	.86			
Tourism looks like the best way to help my community's economy in the future	.85			
Tourism should play a vital role in the future of the BB area	.82			
Tourism development in my community will benefit me or some member of my family	.82			
Increased tourism would hurt my community's quality of life	-.65			

positive attitude toward tourism development in their community. Specifically, "Tourism should play a vital role in the future of the BB area" had the highest mean score (X=3.63), and "Increased tourism would hurt my community's quality of life" lowest (X=2.98).

The results did not differ significantly when analyzed by region ($p>.17$). Respondents from both north and south parts of the county had a positive view of tourism development in their community (mean score of 3.38 and 3.24, respectively). However, participants from the north county tended to be slightly more pro-development than the participants from the south county, except for the items "Tourism looks like the best way to help my community's economy in the future" and "Tourism development in my community will benefit me or some member of my family."

Exploratory factor analysis (principal component analysis) was performed on this eight-item tourism development scale in order to check unidimensionality (construct validity) of the scale using Direct Oblim rotation. A reliability score was generated using Cronbach's α value. Table 23 outlines these results. It showed that factor loading scores on all the items ranged from .65 up to .93 (absolute values), and more than 70% of variance was explained by the one dimension extracted from the analysis. Thus, the result of this factor analysis confirmed the unidimensionality of the tourism development Scale. Factor loading scores above .6 and Cronbach's α over .80 is indicative of this scale being highly reliable with high internal consistency among the items. This confirms that this scale was appropriate in measuring residents' attitudes toward tourism development.

Types of Tourism Development

Another part of the purpose of this study was to investigate whether respondents would support specific types of tourism development options. For this purpose, a scale comprised of 15 items was developed and pre-tested. This section asked the respondents whether they thought such development options were desirable or undesirable for their community. An item stating "Prohibiting all new development" was added to the scale to see whether some respondents did not desire any development in their area. The items were measured using a five-point scale ranging from strongly undesirable (1) to strongly desirable (5) for their community.

Data in Table 24 indicate that respondents had different perspectives toward different types of tourism development. The respondents thought educational facilities (providing facilities which would educate visitors about nature X = 4.15) and historic sites (X=4.14) were the most desirable for their communities. "Development of businesses for bird watching" (X=3.95), trails development (X=3.94), and "more small independent businesses" (X=3.80) scored relatively high scores. On the other hand, amusement park type facilities development scored thelowest (X=1.76), followed by "more golf courses" (X=2.04) and "more resorts" (X=2.19).

A principal components analysis with Varimax rotation was performed on the 15 items to assess the construct validity and to reduce the items into a small number of dimensions. MSA (Measures of Sampling Adequacy) value shows that all the items were adequate for factor analysis (correlation coefficient for all the items were greater

Table 24
Descriptive Statistics of Types of Tourism Development Items

Items	North County (n=116)	South County (n=124)	Total (n=240)	F	Sig.
		Mean (SD)			
Providing facilities which would educate visitors about nature	4.08 (.82)	4.22 (.77)	4.15 (.80)	1.24	p>.26
Development of historic sites	4.12 (.69)	4.17 (.82)	4.14 (.76)	.10	p>.75
Development of businesses for bird watching	3.86 (.91)	4.04 (.84)	3.95 (.88)	1.75	p>.18
Developing new trails for walking or biking	3.96 (.92)	3.93 (1.02)	3.94 (.97)	.34	p>.56
More small independent businesses	3.82 (.99)	3.79 (1.02)	3.80 (1.00)	.24	p>.62
Hosting events such as festivals	3.79 (.94)	3.55 (1.18)	3.67 (1.07)	2.94	p>.08
Development of more places to camp	3.77 (.91)	3.56 (1.13)	3.66 (1.03)	3.07	p>.08
Businesses that attract tourists to the community	3.69 (1.04)	3.53 (1.09)	3.61 (1.07)	1.84	p>.17
Development of more restaurants	3.60 (1.03)	3.09 (1.27)	3.34 (1.18)	11.39	p<.01*
Development of more hotels	3.05 (1.16)	2.78 (1.34)	2.91 (1.26)	4.93	p<.05**
Increased places to hunt wildlife	2.99 (1.16)	2.09 (1.26)	2.53 (1.29)	37.29	p<.01*
Development of franchise businesses	2.89 (1.24)	1.95 (1.20)	2.41 (1.30)	34.04	p<.01*
Prohibiting all new development	2.24 (1.03)	2.47 (1.08)	2.36 (1.06)	4.02	P<.05**
Development of more resorts	2.48 (1.27)	1.91 (1.23)	2.19 (1.28)	16.82	P<.01*
Development of more golf courses	2.39 (1.15)	1.70 (1.02)	2.04 (1.14)	27.39	P<.01*
Development of amusement park type facilities	2.04 (1.26)	1.50 (1.03)	1.76 (1.18)	14.91	P<.01*

* Statistically significant at the .01 level.
** Statistically significant at the .05 level.

than .80).

The 15 items from the questionnaire resulted in three factors and accounted for 64.0% of the variance (Table 25). Factors were labeled based on highly loaded items and the common characteristics of items were grouped together. Thus, factors were labeled as 'franchise, amusement & resorts (high impact)', 'independent services & events (moderate impact)', and 'natural & cultural (low impact)' development. The franchise, amusement and resorts development dimension groups the types of development that results in relatively high impact on the area. Some of the examples include development of franchise businesses, development of more golf courses, resorts, and amusement parks. An independent services & events development dimension includes items such as small independent businesses, events and festivals, and so forth. The third factor (low impact, natural & cultural development) groups the types of development that does not cause serious impacts to the community although it is developed. Items included in this dimension are businesses for bird watching, camping facilities, trails, historic sites, and education facilities. The three factors explained 24.4%, 21.6%, and 18.0% of the variance, respectively.

Data in Table 25 indicate that factor loading scores on these factors ranged from .53 to .88 (absolute values) and all the loading scores were greater than .50. This indicates a good correlation between the items and the factor they belong to. As shown in the table, Cronbach's α values were above the satisfactory level (above .70) on all the dimensions.

Table 25
Factor Analysis on Desirable Types of Tourism Development Options

	Factor loading	Eigen Value	% of variance	Cronbach's α
FACTOR 1: Franchise, Amusements, & Resorts (High Impact)		5.90	24.4	.83
Development of more resorts	.88			
Development of amusement park type facilities	.84			
Development of more golf courses	.84			
Development of franchise businesses	.73			
Increased places to hunt wildlife	.53			
FACTOR 2: Independent Services & Events (Moderate Impact)		2.18	21.6	.83
Businesses that attract tourists to the community	-.81			
Hosting events such as festivals, etc.	-.77			
More small independent businesses	-.76			
Development of more restaurants	-.70			
Development of more hotels	-.65			
FACTOR 3: Nature & Culture (Low Impact)		2.61	18.0	.85
Developing new trails for walking or biking	.84			
Development of businesses for bird watching	.81			
Providing facilities which would educate visitors about nature	.79			
Development of historic sites	.76			
Development of more places to camp	.74			

Results from the ANOVAs indicated that the responses were significantly different between north and south counties on the high impact development factor ($p<.00$). Respondents from the south part of the county thought these types of development (franchise businesses, hunting area, golf courses, resorts, and amusement parks) were less desirable for their communities than the respondents from the north. However, the answers did not differ significantly on the moderate and low impact development options factors ($p>.61$, $p>.34$, respectively). All respondents, regardless of what part of the county they lived in, felt that most types of development were somewhat desirable for their communities.

The Structural Model

The main purpose of this study was to investigate how residents felt about the changes and tourism developments in their community and to develop and test a structural model that would help our understanding of variables related to perceived tourism development. In order to get adequate evidence to support the overall fit of the model and the individually hypothesized relationships that are represented as paths in the model, an evaluation was constructed. This section relates the results undertaken to examine those hypotheses.

The data for this section were analyzed with a Structural Equation Modeling (SEM) approach using SPSS 14.0 and AMOS 5.0 software packages. The model was

tested with a two-step method. That is, prior to using SEM to test the proposed model, principle component analyses (PCA) were conducted to reduce the number of variables for each construct (Hwang, et al., 2005; Yoon & Uysal, 2005), because it is recommended that a latent variable have four to eight, and no more than ten observed variables (Kline, 1998). The PCA combines items correlated to one another but independent of other subsets of items into an underlying factor (Tabachnick & Fidell, 2001). The PCA, using the Eigen value of over 1.0 and a factor loading of .4 for factor inclusion, is useful for determining the number of sub-constructs.

The mean scores of each factor for multiple factored variables, as well as for unidimensional variables was calculated and treated as indicator variables to measure latent variable (Hwang, et al., 2005;Yoon & Uysal, 2005). Since the unit of the indices (the composite mean score in this study) is different when they have different numbers of items, using mean scores reduces the effect of units and controls them. For example, the unit for an index with only one item may be 20 times as large as another index with 20 items. And therefore, the unstandardized coefficient for the former index will be 20 times smaller than the later one. For the directional consistency, negatively stated items were reverse coded when averaging the scores.

The construct of value orientations toward nature was measured with 15 items developed and revised by Dunlop and Van Liere (1992, 2002). The result from PCA indicates that the scale has two sub-scales; human abuse and human control. These two factors and the scale reliabilities were all satisfactory with the range of factor loadings between .51 and .80 (Table 18, p. 127).

Attitude toward tourism impacts were measured with a 33-item scale, which had four sub-scales of environmental impacts, sociocultural impacts, infrastructure impacts, and economic impacts. The scale reliabilities were .94, .90, .83 and .70, respectively, and the factor loadings ranged from .47 to .83 (Table 20, p. 133).

Desirable types of development were measured by asking respondents to indicate how desirable or undesirable each item is for development in their community. The scale had 3 sub-scales; franchise, amusement, & resorts development, independent services & events development and nature & culture development. The scale reliabilities were .83, .82 and .85 for each subscale, and the factor loadings ranged from .53 to .88 in absolute values (Table 25, p. 144).

As mentioned earlier, the subscale scores were computed by averaging the scores from individual items based on the PCA results. This process was performed to reduce the number of observed variables in each latent variable, and was included as observed variables in the further SEM analysis. Of the 259 responses, 27 cases were dropped from this part of the analysis because of the missing value(s). The actual number of cases used for the SEM analysis was 232.

Examination of the Fit of the Model

The general sequence of assessing the fit between the model and the data in this research were first to review the selected fit indices, and then proceed to indices that provide a more detailed assessment on the fit of various parts in the model. Table 26

reports the selected fit measures for the measurement model. The fit indices were selected primarily based on Hu and Bentler's (1998) and Kline's (1998) recommendations to evaluate the measurement model as well as the structural model.

The fit indices considered in this study were Chi-square/df, Bentler's Comparative Fit Index (CFI), Bentler and Bonnett's Normed Fit Index (NFI), Joreskog-Sobrom Goodness of Fit Index (GFI), and Root Mean Square Error of Approximation (RMSEA). Kline (1998) suggests that the smaller Chi-square values and the ratio of Chi-square/df that is less than 3.0 are indicative of a better model fit. Since Chi-square values are very sensitive to both sample size and the assumption of multivariate normality, a chi-square test could be significant with the sample size used in this research. It is unrealistic in most SEM empirical research to find well-fitting hypothesized models where the Chi-square value approximates the degrees of freedom

Table 26
Fit Indices of the Structure Model Considered in This Study

Fit Indices	Acceptable Level
ρ value of the model's Chi-Square (χ^2)	Over .05, the closer to 1.00 the better
Chi-square/df	Less than 3.0
Bentler's Comparative Fit Index (CFI)	Over .9, the closer to 1.00 the better
Bentler and Bonnett's Normed Fit Index (NFI)	Over .9, the closer to 1.00 the better
Joreskog-Sobrom Goodness of Fit Index (GFI)	Over .9, the closer to 1.00 the better
RMR (Root Mean Square Residual)	Less than .05
Root Mean Square Error of Approximation (RMSEA)	Less than .1

(Klem, 2000; Byrne, 2001). For this reason, Chi-square usually is not considered as the absolute standard by which the goodness of fit of a model is judged. These researchers suggest Chi-square/df as a more appropriate fit index.

CFI, GFI and NFI are more standardized and less sensitive to sample size than the Chi-square statistic. These values are recommended to be at least .9 for an acceptable fit (Hu & Bentler, 1998; Kline, 1998), and a value of less than .05 and .08 indicate acceptable model fit for RMR and RMSEA, respectively (Byrne, 2001; Hu & Bentler, 1998). In addition, Hatcher (1994) suggested that if a path model demonstrates an ideal fit to the data, the ρ value associated with the model chi-square test should exceed .05, the closer to 1.00 the better.

He also pointed out that a model does not have to demonstrate all of these characteristics in order to be acceptable. In fact, many research articles only use the chi-square test and major goodness of fit indices to evaluate the fitness of a theoretical model. Nonetheless, this research compared the output against all the requirements in order to have the confidence to accept or reject the model being tested.

Initial Model

The initial structural model is shown in Figure 5 and goodness of fit indices for the initial structural model are presented in Table 27. Assessing the overall fit of the path model based on the above recommendations, the initial structural model was found to provide a mediocre fit. The results show that the structural model displayed

acceptable values on CFI, and RMSR. Chi-square/df, GFI, NFI, and RMSEA were close but did not meet the threshold values. Although values of fitness indices indicate the overall fitness of the model was tolerable for the initial model, it is possible that some parts of the model may poorly fit the data. Therefore, it was necessary to make a closer examination of other parts of the program's output.

To identify the problems with the model, the patterns of modification indices were examined. Modification indexes (MI) can be conceptualized as a χ^2 statistic with one degree of freedom (Joreskog & Sorbom, 1993). This means that for each specified fixed parameter, the MI which AMOS 5.0 provides represents the expected drop in overall χ^2 value. Normally, MIs over 10 are considered large and problematic (Joreskog & Sorbom, 1993) and a modification process is advised. The output indicated that the largest MI was 14.40 for the initial model, which was the error covariance between e10 and e15. E10 is the error variance of a 'franchise, amusement & resorts development', which measureed residents' perception of desirable types of development. E15 is the error variance of value orientations toward natural resources. Stern et al. (1999) and others contend that people's value orientation toward nature could be a good indicator of whether people consider a certain type of development to be desirable or undesirable (Manfredo, et al., 1997; Stern, et al., 1999). Based on this rationale, it is appropriate to re-estimate the model with the error covariance between these two items.

Table 27
Fit Indices of the Initial Structural Model

Fit Index	Value
Chi-square Test	$\chi^2 = 176.70$, df = 44, $\rho = .00$
Chi-square/df	4.02
Goodness of Fit Index (GFI)	.88
Bentler's Comparative Fit Index (CFI)	.90
Bentler & Bonett's (1980) NFI	.87
Root Mean Square Residual (RMSR)	.04
Root Mean Square Error of Approximation (RMSEA)	.10

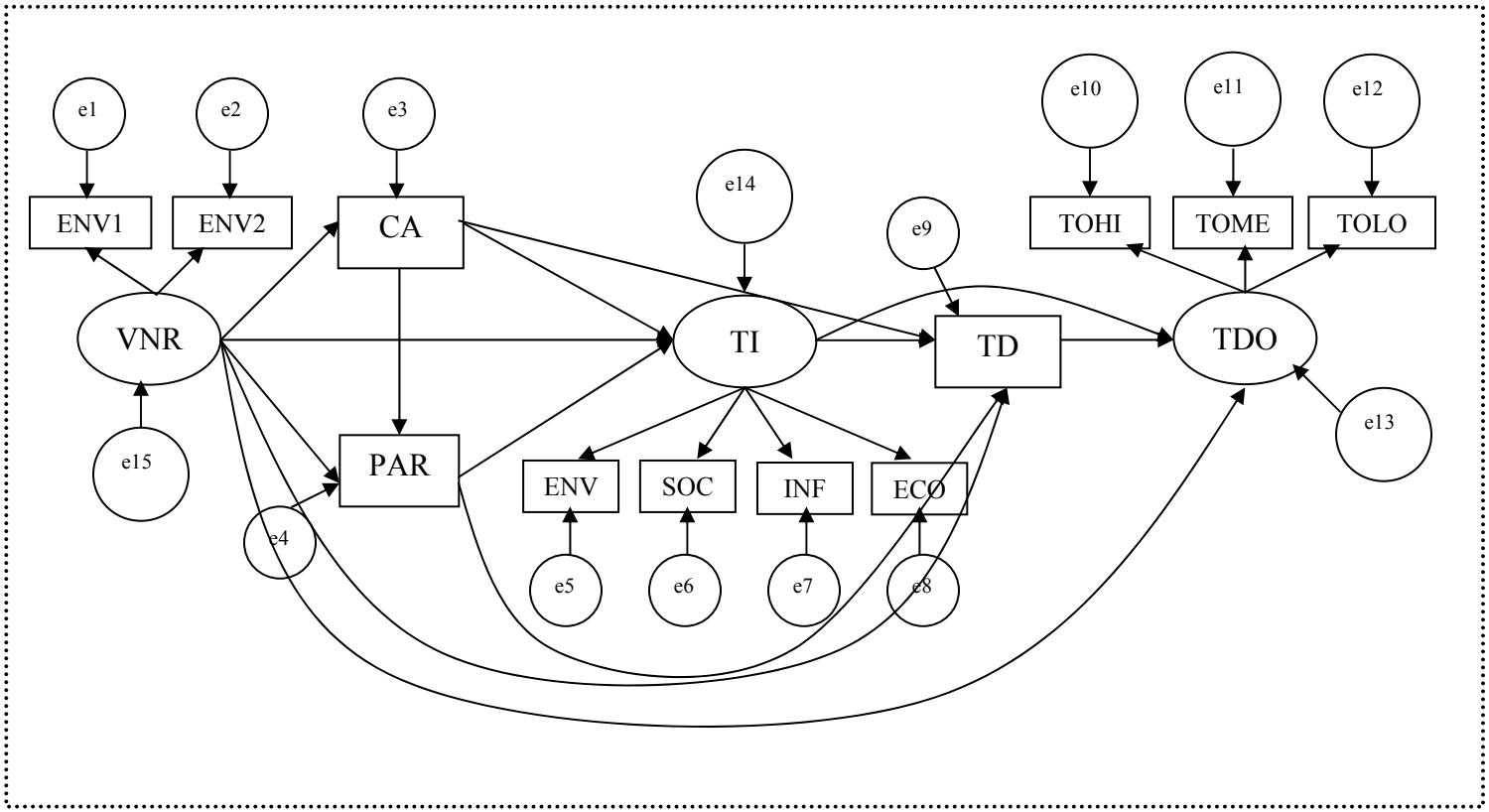

Fig 5. Initial Theoretical Model for the SEM Approach (VNR=Value orientation toward natural resource, CA=Ccommunity attachment, PAR=attitude toward participation, TI=Attitude toward tourism impact, TD=Attitude toward tourism development, TO =Desirability of Tourism Development Options).

Table 28
Fit Indices of the Revised Structural Model

Fit Index	Value
Chi-square Test	$\chi^2 = 120.75$, df = 43, $\rho = .02$
Chi-square/df	2.80
Goodness of Fit Index (GFI)	.92
Bentler's Comparative Fit Index (CFI)	.94
Bentler & Bonett's (1980) NFI	.91
Root Mean Square Residual (RMR)	.03
Root Mean Square Error of Approximation (RMSEA)	.08

The First Revised Structural Model

Figure 6 shows the revised structural model and the parameters that were estimated. The difference between this model and the initial model is the addition of the path between e10 and e15. The goodness of fit indices for the revised structural model are presented in Table 28. The results showed that all the indices were improved after the modification, compared to the initial structural model. The Chi-square difference test between the initial model and the revised model showed a significantly different value of 55.95 (176.70 - 120.75 = 55.95, df = 1), confirming that the revised model had a significantly better fit than the initial structural model.

However, the modification indexes showed that there was a problematic value (26.28) between e7 and e8 related to attitudes towards tourism impacts. This may indicate a

misfit in the model. Error correlations between item pairs are often an indication of inherent redundancy in item content (Byrne, 2001). Weinfurt (1995) indicated that each item may have an indirect effect of the latent measures through the covariate. Infrastructure and economic impact factors both measured attitudes toward the tourism impact variable, but their level of covariance suggests they elicit similar responses from the residents.

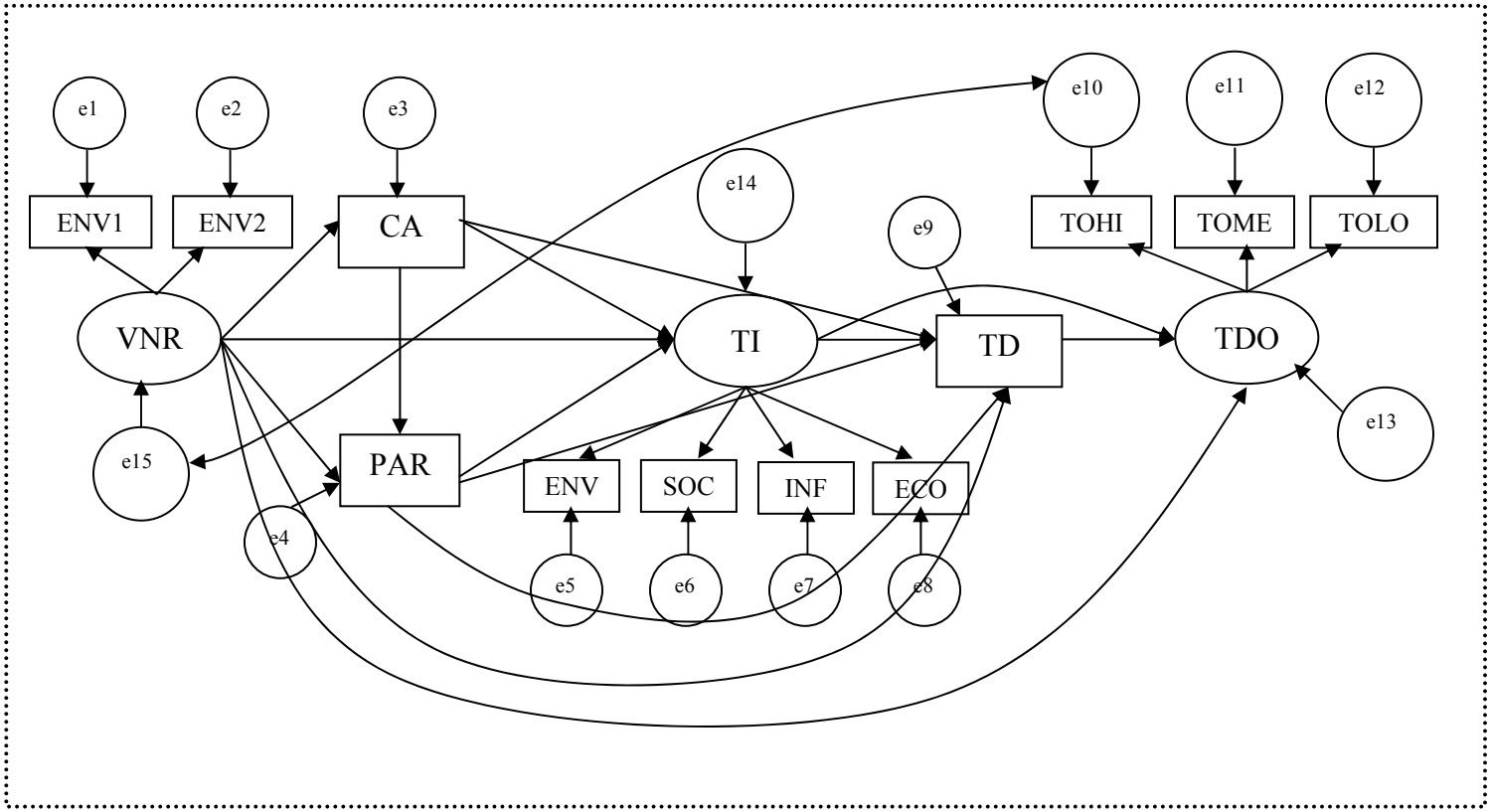

Fig 6. Revised Theoretical Model for the SEM Approach (VNR=Value orientation toward natural resource, CA=Ccommunity attachment, PAR=attitude toward participation, TI=Attitude toward tourism impact, TD=Attitude toward tourism development, TO=Desirability of Tourism Development Options.

The Final Revised Structural Model

Figure 7 shows the final revised model and the parameters that were estimated. According to the analysis, the difference between this model and the revised model is the addition of the path between e7 and e8. The goodness of fit indices for the final structural model are presented in Table 29. The results indicate that all the indices were improved compared to the revised structural model except for RMR, which is still acceptable. The Chi-square difference test between the revised model and the final model showed a significantly different value of 27.63 (120.75 - 93.12 = 27.63, df = 1), confirming that the final structural model was a significantly better fit than the revised structural model. All the modification indexes were less than 10.

The R^2 values indicate the percent variance in the indicator that is explained by the common factor (Hatcher, 1994). The R^2 values for the structural model's latent endogenous variables (i.e. value orientations toward natural resources, attitude toward tourism impacts, desired tourism development options) were .31, .36, and .75, respectively. This indicate that 30.6% of the variance in value orientations toward natural resources, 35.8% of the variance in attitude toward tourism impacts, and 74.6% of the variance in desired tourism development options were explained by their corresponding indicators.

Figure 8 illustrates the standardized coefficients for each path in the model. Each path represents the strength of the direct and indirect effects of the variables. Direct effects do not influence or mediate any other variable in the model, while indirect effects

are mediated by one or more intervening variables. The total effect refers to the sum of the direct and indirect effects of the variable. Detailed investigation of the effect of each variable will be explained on the next section.

Table 29
Comparison of the Selected Fit Measures for the Initial Structural Model and the Revised Structural Model

Fit Index	Initial Model	Revised Model	Final Model
Chi-square Test	$\chi^2 = 176.70$, df = 44	$\chi^2 = 120.75$, df = 43	$\chi^2 = 93.12$, df = 42
Chi-square/df	4.02	2.80	2.21
GFI	.88	.92	.94
CFI	.90	.94	.96
NFI	.87	.91	.93
RMR	.04	.03	.03
RMSEA	.10	.08	.07

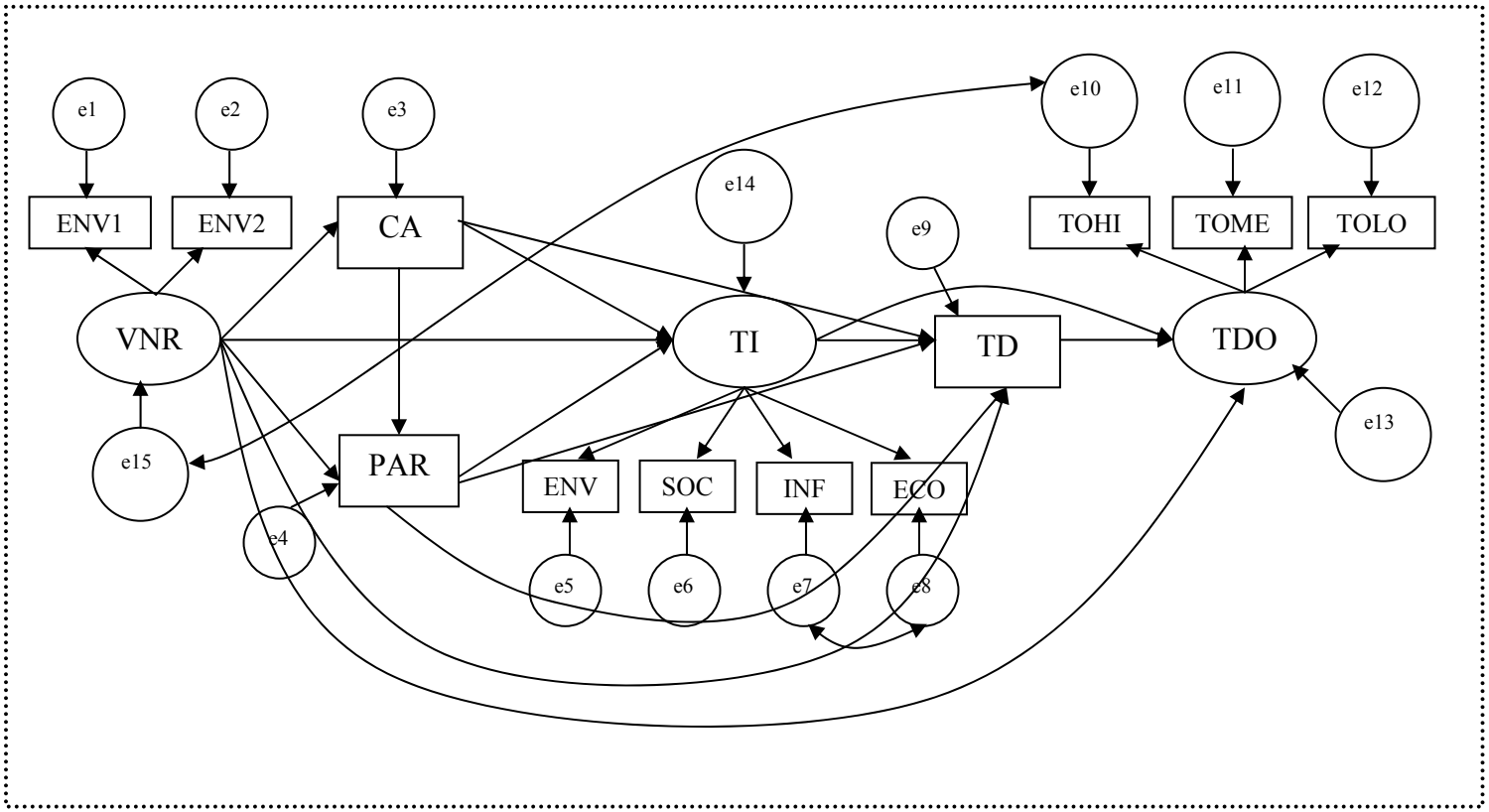

Fig 7. The Final Theoretical Model for the SEM Approach (VNR=Value orientation toward natural resource, CA=Community attachment, PAR=attitude toward participation, TI=Attitude toward tourism impact, TD=Attitude toward tourism development, TO=Desirability of Tourism Development Options).

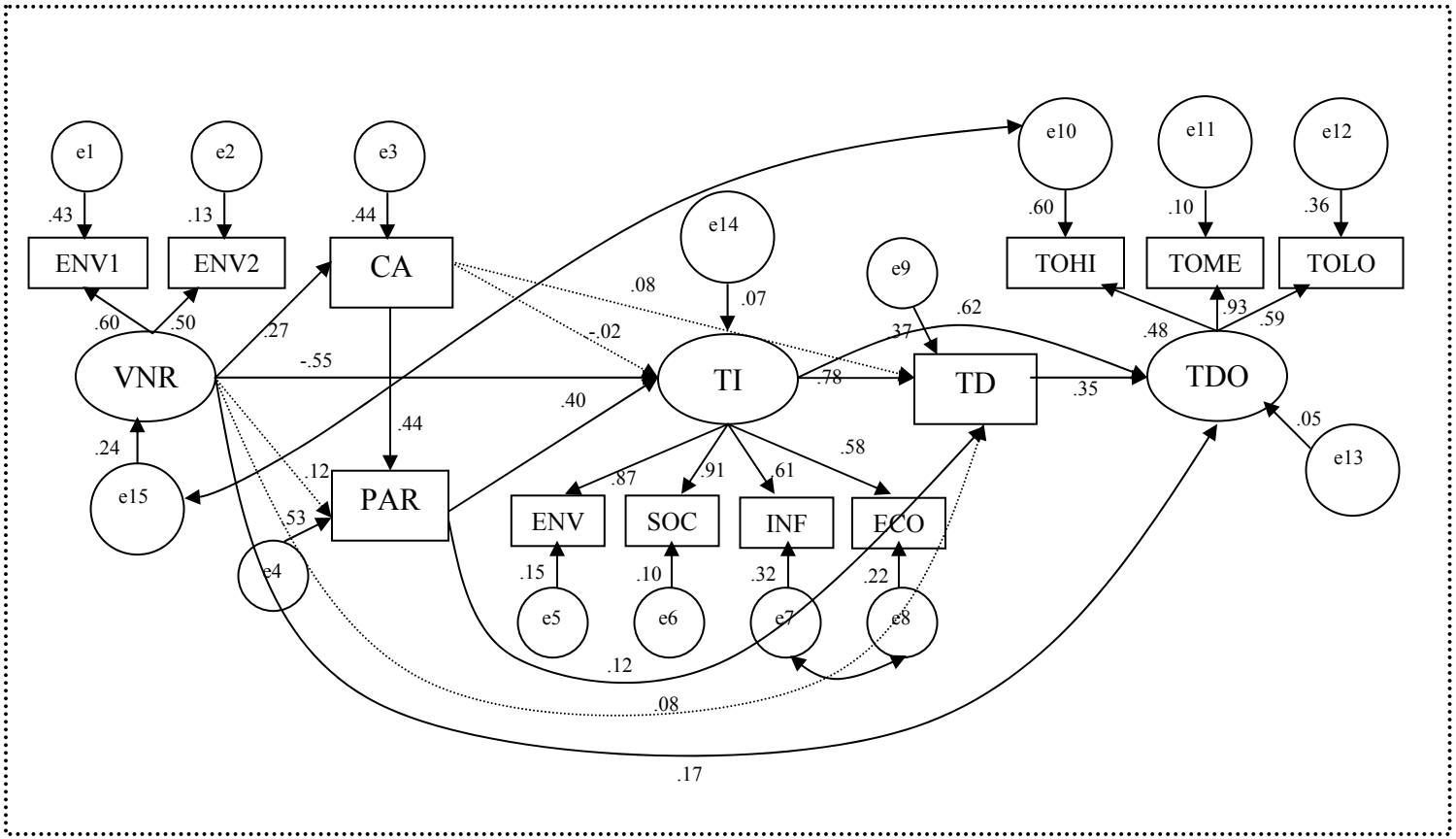

Fig 8. Standard Coefficients for the Final Revised Structural Model (Dashed lines indicate paths that are not significant at the .05 level)

Table 30
Parameter Estimates for the Final Revised Structural Model

Parameter	Unstandardized Estimate	Standard Error (S.E.)	Critical Ratio (t value)	P
CA ← VN	.38	.12	3.10	.00
PAR ← VN	.20	.13	1.47	.14
PAR ← CA	.54	.07	7.21	.00
TI ← VN	-.37	.08	-4.34	.00
TI ← PAR	.16	.03	4.85	.00
TI ← ATT	-.01	.03	-.23	.81
TD ← ATT	.12	.07	1.56	.11
TD ← PAR	.15	.06	2.14	.03
TD ←TI	2.43	.31	7.84	.00
TD ← VN	.16	.16	1.02	.30
TO ← TD	.16	.04	3.85	.00
TO ← TI	.86	.19	4.38	.00
TO ← VN	.15	.07	2.15	.03
ENV1 ← VN	1.00	--	--	--
ENV2 ← VN	.43	.08	5.26	.00
ECO ← TI	1.00	--	--	--
INF ← TI	1.33	.14	9.35	.00
SOC ← TI	2.18	.22	9.62	.00
ENV ← TI	2.07	.22	9.41	.00
TOHI ← TO	1.00	--	--	--
TOME ← TO	1.79	.25	7.18	.00
TOLO ← TO	.96	.15	6.27	.00
e10 ↔ e15	-.26	.04	-5.76	.00
e7 ↔ e8	.09	.02	4.72	.00

CA = community attachment, VN = value orientations regarding nature, PAR = attitude toward participation, TI = Attitude towards tourism impacts, TD = attitude toward tourism development, TO = attitude toward desirable types of tourism development options, ENV1 = human abuse, ENV2 = human control, ENV = environmental impacts, SOC = sociocultural impacts, INF = infrastructure impacts, ECO = economic impacts, TOHI = high impact tourism development options, TOME = medium impact tourism development options, TOLO =low impact tourism development options.

Results of Hypotheses Tests

HI: Relationships among Value Orientation toward Nature and Other Constructs

The results indicated relatively strong support for effects of value orientations regarding nature on level of community attachment, attitude toward tourism impact, and on desired tourism development options. The effects were not statistically significant for attitude toward participation and tourism development. These path coefficients are reported in Figure 7 and Table 30.

As expected, value orientations toward nature had a positive influence on residents' level of community attachment ($\beta = .27$, $t = 3.10$, $\rho<.01$), a strong negative influence on attitude toward tourism impact ($\beta = -.55$, $t = -4.38$, $\rho = .00$), and a positive influence on desired tourism development options ($\beta = .17$, $t = 2.15$, $\rho<.05$). Specifically, residents' value orientations regarding nature were negatively related with tourism's environmental and sociocultural impacts, while positively related with its infrastructure and economic impacts. Also, respondents' value orientations regarding nature were negatively related with high impact tourism development options, while positively related with medium or low impact development options (See Tables 31 and 32, p. 166, 168). They were significant at least at the .05 level. There were also positive influence of value orientations toward nature on attitude toward participation ($\beta = .12$, $t = 1.47$, $\rho>.14$) and attitude toward tourism development ($\beta = .08$, $t = 1.02$, $\rho>.30$), but were not statistically significant.

To summarize, residents' value orientations toward nature were an antecedent to residents' community attachment levels, attitudes toward tourism impacts, and perceptions of desirable tourism development options. Thus, hypotheses 1a, 1b, and 1e were statistically supported while hypotheses 1c and 1d could not be accepted as was expected based on the literature review.

When indirect effects were calculated by multiplying structural coefficients among latent variables that were mediated by at least one other variable, it was revealed that attitude toward tourism development was negatively influenced by value orientations regarding nature through attitude towards tourism impact ($\beta = .43$). Attitude toward participation was also influenced by value orientations regarding nature through people's community attachment ($\beta = .12$).

The more a person is aware of 'human abuse' and 'human control' of the natural resources, he/she tends to be highly attached to their community, have negative attitudes toward tourism impacts, and have opinions on what would be desired tourism development options for their community. Indirectly, those who were more aware of the value of natural resources tended to have positive attitudes towards community participation and negative attitudes toward tourism development in their community.

Canonical correlation analyses were run to examine the effect of a variable by each factor in order to obtain more detailed results. Canonical correlation is a means of breaking down the association of two sets of variables, and is appropriate to parsimoniously describe the number and nature of mutually independent relationships existing between the two sets (Stevens, 1996). The first few pairs of linear combinations

Table 31
Canonical Correlation Analysis between Value Orientations toward Nature and Attitude toward Tourism Impacts

Multivariate Tests of Significance (S = 2, M = 1/2, N = 112)

Test Name	Value	Approx. F	Hypoth. DF	Error DF	Sig. of F
Pillais	.13	4.03	8.00	454.00	.000
Hotellings	.15	4.18	8.00	450.00	.000
Wilks	.87	4.11	8.00	452.00	.000
Roys	.12				

Eigenvalues and Canonical Correlations

Root No.	Eigenvalue	Pct.	Cum. Pct.	Canon Cor.	Sq. Cor
1	.14	91.01	91.01	.35	.12
2	.01	8.99	100.00	.12	.01

Correlations between independent and canonical variables

ENV1 (Human Abuse)	.98
ENV2 (Human Control)	.58

Correlations between covariates and canonical variables

Covariate	CAN. VAR.
ENV (Environmental Impacts)	-.93
SOC (Sociocultural Impacts)	-.73
INF (Infrastructure Impacts)	.49
ECO (Economic Impacts)	.50

(the canonical variates) generally account for most of the between variance association. One set of canonical variates was generated and taken into consideration for interpretation in this case (Table 31).

The canonical variates tell us the strength of the relationship between respondents' value orientations toward nature and their attitude towards different types of tourism impacts. Specifically, the set of canonical variates tells us how people's value orientation toward nature, especially the human abuse factor, is maximally associated with a given attitude toward tourism impacts items. Usually, the largest (in absolute value) coefficients or correlations are used for interpretation. The canonical variates account for significant relationships between the two sets of variables and they are interpreted in much the same way that factor loadings are interpreted to define underlying latent canonical variates. Looking between a given pair of canonical variates, it is possible to interpret on which dimensions they are more related to one another.

Since Wilks Lambda score was significant with F=.00 (Table 31), it was acceptable to run canonical correlation with these data. The one variate explained 64.6% of the variable. Interpreting correlations of .5 and higher on each variate indicates that the canonical variate could explain all four dimensions. This indicates that residents' value orientations toward nature was negatively related with environmental (r=-.93) and sociocultural (r=-.73) impacts while positively related with infrastructure (r=.49) and economic (r=.50) impacts. Specifically, the human abuse dimension was most negatively related to environmental and sociocultural impact dimesions, while human control dimension was most positively related to infrastructural and economic impact

Table 32
Canonical Correlation Analysis between Value Orientations toward Nature and Attitude toward Tourism Development Options

Multivariate Tests of Significance (S = 2, M = 0, N = 1121/2)

Test Name	Value	Approx. F	Hypoth. DF	Error DF	Sig. of F
Pillais	.23	10.02	6.00	456.00	.00
Hotellings	.29	11.03	6.00	452.00	.00
Wilks	.77	10.53	6.00	454.00	.00
Roys	.22				

Eigenvalues and Canonical Correlations

Root No.	Eigenvalue	Pct.	Cum. Pct.	Canon Cor.	Sq. Cor
1	.28	94.21	94.21	.47	.21
2	.02	5.80	100.00	.13	.01

Correlations between independent and canonical variables

Variable	Function No.	
	1	2
ENV1 (Human Abuse)	.96	-.28
ENV2 (Human Control)	.63	.78

Correlations between covariates and canonical variables

Covariate	CAN. VAR.	
	1	2
TOHI (High Impact Development)	-.90	-.07
TOME (Medium Impact Development)	-.38	.69
TOLO (Low Impact Development)	.79	.03

dimensions.

In addition, relationships between residents' value orientations toward nature and their attitude toward specific tourism development options were investigated through canonical correlation analysis (Table 32). The result shows that two canonical variates were generated. These two canonical variates tell us the strength of the relationship between respondents' value orientations toward nature and their attitude towards tourism development options. Specifically, the first pair of canonical variates tells us how value orientations toward nature, especially the human abuse dimension, was maximally associated with a given attitude toward tourism development. The result indicated that the human abuse dimension accounted was negative correlated with high impact development options and positively correlated with low impact development options. The second pair of canonical variates yields a score for an uncorrelated variable of value orientations toward nature (especially the human control dimension) that is associated with a different pattern of tourism development options, i.e., positive relationship with medium impact tourism development options. Between those two pairs of variates, the largest (in absolute value) coefficients or correlations are used for interpretation.

With Wilks Lambda score significant with F=.00 (Tbale 32), it was acceptable to run canonical correlation with these data. The first variate explained 32.78% of the variable, and the second, 16.23%. Interpreting correlations of .5 and higher on each variate indicates that the first canonical variate could explain two of the three factors. This indicates that the first dimension of the value orientations toward nature (human abuse) is negatively related with attitude toward high impact developments (r=-.90) and

positively related with attitude toward low impact developments (r=.79). The second pair of canonical variates is also highly related by .78 with attitudes toward medium impact tourism development options (r=.69).

Thus, it can be interpreted that residents who believe that humans abuse and control nature also had negative attitudes towards environmental and sociocultural changes, and positive attitudes toward infrastructure and economic changes caused by tourism development. It was also found that respondents who believe that humans abuse nature had negative attitudes toward high impact tourism development options (development of franchise businesses, golf courses, places for wildlife hunting, etc.), but have positive attitudes toward low impact tourism development options (development of businesses for bird watching, camping or educational facilities, historic sites, or walking or hiking trails). On the other hand, residents who believed that humans control nature had positive attitudes toward medium impact tourism development options (development of small independent businesses, events and festivals, hotels, restaurants).

H2: Relationships among Community Attachment and Other Constructs

Hypotheses H2a and H2b addressed the influence of residents' level of community attachment on their attitudes toward tourism impacts and tourism development, respectively. As displayed in the Figure 7, the hypotheses were not supported as the paths from level of community attachment to attitude toward tourism impacts (β = .-02, t = -.22, ρ>.81) and tourism development (β = .08, t = 1.56, ρ>.11)

were not significant. Thus, H2a and H2b are rejected. However, there were indirect relationships between the level of community attachment and attitudes toward tourism impact through attitudes toward participation (β = .18). When a respondent was highly attached to their community, he/she was also likely to have more positive attitude towards participation, which led to positive attitude toward tourism impacts.

When the attitude toward participation is a dependent variable, there was a direct, positive influence from level of community attachment (β = .44, t = 7.21, ρ = .00). Hypothesis 2c is therefore accepted. Residents with higher level of community attachment will have positive attitudes toward community participation.

Although relationships among level of community attachment, attitude toward tourism impacts, and attitude toward tourism development could be explained only indirectly, direct relationships among them were not statistically supported. Thus, hypotheses 2 are partially supported.

Although a regression analysis was performed to see the effects of residents' community attachment level on each factors of attitude toward tourism impacts, it was found that the relationship was not statistically significant.

H3: Relationships among Attitude toward Participation and Other Constructs

Hypotheses 3a and 3b were established to look at the effect of residents' attitude toward participation on their attitude toward tourism impacts (H3a) and tourism development (H3b). The result indicated that both hypotheses were statistically

supported, with β = .40 (t = 4.85, ρ = .00) for H3a, and β = .12 (t = 2.14, ρ<.05) for H3b. Thus, there were significant and direct relationships between residents' attitudes toward participation and attitudes toward tourism impacts, and attitudes toward participation and attitudes toward tourism development.

An indirect relationship between attitude toward participation and attitude toward tourism development through attitude toward tourism impact (β = .31) was stronger than the direct relationship. Positive attitudes toward community participation was related to positive attitudes toward tourism impacts and tourism development.

H4: Relationships among Attitude toward Tourism Impacts and Other Constructs

Hypotheses 4a to 4c were established to examine relationships among residents attitudes toward tourism impact, tourism development, and perceptions on desirable types of tourism development options. Results show a strong positive influence of attitudes toward tourism impacts on attitudes toward tourism development (β = .78, t = 7.84) and desired tourism development options (β = .62, t = 4.38). They were both statistically significant at the .00 levels. When residents have positive attitudes toward tourism impacts, they would also have positive attitudes toward tourism development. In addition, as they have positive attitudes toward tourism development, they are likely to desire certain types of tourism development options in different degrees.

To look at the more in-depth relationships between the constructs, a canonical correlation analysis was performed between the constructs of attitudes toward tourism

impacts and attitudes toward tourism development options (Table 33). It shows that two canonical variates were generated. These indicate the strength of the relationship between respondents' attitudes toward tourism impacts and their attitudes towards tourism development options. The first pair of canonical variates suggests that how attitudes toward tourism impacts, especially environmental, sociocultural and infrastructure, is maximally associated with a given attitude toward tourism development option items. The second pair of canonical variates yields a score for an uncorrelated variable of attitude toward tourism impacts (economic impacts dimension) that is associated with a different pattern of tourism development options. Between those two pairs of variates, the larger (in absolute value) coefficients or correlations are used for interpretation.

The first variate explained 62.36% of the variable, and the second, 19.05%. Interpreting correlations of .5 and higher on each variate indicates that the first canonical variate could explain all three factors of tourism option items. This indicates that attitudes toward environmental, sociocultural and infrastructure impacts due to tourism are negatively related with attitudes toward high and medium impact developments (r=-.82 and r=-.93, respectively) and positively related with attitudes toward low impact developments (r=.52). The second pair of canonical variates is also highly related (r=.64) with attitudes toward low impact tourism development options (r=-.77).

Residents with negative attitudes toward environmental, sociocultural, and infrastructure impacts induced by tourism had negative attitudes towards high and medium impact development options but positive attitudes toward low impact

Table 33
Canonical Correlation Analysis between Attitude Toward Tourism Impacts and Attitude toward Tourism Development Options

Multivariate Tests of Significance (S = 3, M = 0, N = 111 1/2)

Test Name	Value	Approx. F	Hypoth. DF	Error DF	Sig. of F
Pillais	.69	16.89	12.00	681.00	.00
Hotellings	1.56	28.98	12.00	671.00	.00
Wilks	.37	22.70	12.00	595.59	.00
Roys	.59				

Eigenvalues and Canonical Correlations

Root No.	Eigenvalue	Pct.	Cum. Pct.	Canon Cor.	Sq. Cor
1	1.45	93.19	93.19	.77	.59
2	.10	6.55	99.74	.30	.09
3	.01	.26	100.00	.06	.00

Correlations between independent and canonical variables

Variable	Function No.	
	1	2
ENV (Environmental Impacts)	.93	.26
SOC (Sociocultural Impacts)	.96	-.11
INF (Infrastructure Impacts)	.64	-.53
ECO (Economic Impacts)	.55	-.64

Correlations between covariates and canonical variables

Covariate	CAN. VAR.	
	1	2
TOHI (High Impact Development)	-.82	.41
TOME (Medium Impact Development)	-.93	-.22
TOLO (Low Impact Development)	.52	-.77

development. Also, residents with positive attitude toward tourism induced economic impacts had positive attitudes toward low impact developments.

The hypothesis further looked at the relationship between attitude toward tourism development and desired tourism development options, which was statistically supported ($\beta = .35$, $t = 3.85$, $\rho = .00$). When residents are pro-tourism development, they also may desire certain types of tourism development.

Rresults from canonical correlation analysis made it possible to more closely examine the relationships between attitudes toward tourism development and perceptions of desired types of tourism development (Table 34). The single variate explained 68.33% of the variable. Interpreting correlations of .5 and higher on each variate indicated that the canonical variate could explain all three dimensions of attitude toward the tourism development options variable. This indicated that residents' attitudes toward tourism was negatively related with high impact developments (r=-.68) while positively related with medium impact (r=.98) and low impact development options (r=.63).

Most of the respondents had positive attitudes toward tourism development, but opposes high impact development such as golf courses, resorts, or amusement parks development. Rather, they seemed to feel that small independent businesses, camping and educational facilities, historic sites, trails, and hosting festivals and events were more desirable types of tourism development for their area.

Table 34
Canonical Correlation Analysis between Attitude Toward Tourism Development and Attitude toward Tourism Development Options

Multivariate Tests of Significance (S = 3, M = 0, N = 111 1/2)

Test Name	Value	Approx. F	Hypoth. DF	Error DF	Sig. of F
Pillais	.65	7.71	24.00	669.00	.00
Hotellings	1.47	13.42	24.00	659.00	.00
Wilks	.39	10.27	24.00	641.57	.00
Roys	.58				

Eigenvalues and Canonical Correlations

Root No.	Eigenvalue	Pct.	Cum. Pct.	Canon Cor.	Sq. Cor
1	1.40	95.23	95.23	.76	.58
2	.04	2.66	97.88	.19	.04
3	.03	2.12	100.00	.17	.03

Correlations between independent and canonical variables

The benefits of tourism development will outweigh its costs	.78
New tourism development should be actively encouraged	.94
My community can handle more tourism development	.93
Increased tourism would hurt my community's quality of life	-.71
Tourism should play a vital role in the future of the BB area	.81
I support new tourism development in my community	.89
Tourism looks like the best way to help my community's economy in the future	.79
Tourism development will benefit me	.74

Correlations between covariates and canonical variables

Covariate	CAN. VAR.
TOHI (High Impact Development)	-.68
TOME (Medium Impact Development)	.98
TOLO (Low Impact Development)	.63

H5: Different Perceptions between Different Areas

Hypothesis 5 was developed to compare different attitudes of residents from north and south county to see if location in the region was related to attitudes toward tourism. As previously described, the northern region of the county includes to communities of Alpine and Marathon, and has higher population density and more physical infrastructure. South county include s the towns of Study Butte, Terlingua, and Lajitas. They are more isolated from larger cities and major highways, lack some services available in the north county, and have more residents involved in the tourism industry.

As shown in Tables 10, 12, 14, 17, 21, 22 and 24, there are slight differences among the residents from different areas of BB region. Demographically, the regions differed on the residents' occupation and length of residency (Table 10, p. 116). Whereas almost 50% of the respondents from south county had tourism related jobs, only 29% of the respondents had tourism related jobs in Alpine and Marathon. Although residents from both regions had an average of more than 10 years of tenure in the area, north county residents had resided in the area longer (18 years) than the residents from south county (14 years).

North and south county respondents differed significantly on some of the items in the community attachment scale, although they were both highly attached to their community with a composite mean score of 4.19 (Table 12, p. 121). In particular, south county residents' attachment level was higher than that of the north county residents.

The items that differed by the region include "overall, I am very attached to this community," "This community is very special to me," "I have an emotional bond with this community-it has meaning to me," and "I am proud to live in this community." South county residents rated higher on all the items but on the item of "This community is an ideal place to live."

Residents' responses on attitudes toward community participation differed by region only on two items of "I, as resident, should be able to participate in local decision making process," and "In the past 12 moths, I have been active in participating in city/public meetings about possible local tourism development (Table 14, p. 126)." South county residents scored significantly higher on these items.

Although residents' from both regions had values oriented toward nature, south county residents felt more strongly about human abuse of nature (Table 17, p.131). They differed significantly on the 11 out of 15 items. It appreared that south county respondents' values are more oriented toward nature, that they are more environmentally friendly and considerate of human abuse and control of nature.

The responses also differed by regions on how they perceive tourism impacts (Table 19, p. 134). The analysis was done by the factors, which revealed that compared to the current conditions, south county residents were more sensitive to net tourism impacts than the north country residents. As mentioned in the earlier section, south county respondents perceived that the net changes induced by tourism would be more damaging in the environmental and sociocultural aspects, compared to the perceptions of north county respondents. On the other hand, south county respondents perceived the

same change more beneficial in the economic and infrastructural aspects of their lives, compared to how the north county respondents perceived.

In regarding respondents' perceptions toward tourism development, their responses differed significantly by the regions in four out of eight items (Table 22, p. 143). For instance, items such as "Overall, the benefits of tourism development will outweigh its costs," "In general, new tourism development should be actively encouraged in my community," "Tourism should play a vital role in the future of BB area," and "I support new tourism development in my community" were rated higher by the north county residents, where as the ratings for the rest of the items did not differ by the regions. North county residents were more pro-development regarding tourism compared to south county residents.

For the desired types of tourism development options items, 8 out of 15 items were scored differently by the respondents of each region (Table 24, p. 146). Items such as "Development of more restaurants," "Development of more hotels," "Increased places to hunt wildlife," "Development of franchise businesses," "Development of more resorts," "Development of more golf courses," and "Development of amusement park type facilities" were rated higher by the north county residents, where as "Prohibiting all new development" was more desired by the south county residents. However, the responses depicted negative scorings, which means that although the responses differ by the regions significantly, residents from both regions perceived that these developments were not desired in their community.

Structural difference between north and south county

Structural equation modeling approach was used to examine structural relationships among the variables by the region. Since the regions differed in many ways based on patterns in the descriptive data, it was also expected that the groups would differ structurally.

The goodness of fit indices for the final structural models are presented in Table 35. The structural model for the north county had to go through one modification process by adding a relationship between e15 and e10. For the south county, however, two relationships (e15 ↔ e10, and e7 ↔ e8) had to be added to the original model to get an appropriate model fit. After one modification process for each region, the results indicated that all the indices were in the acceptable range. Chi-square/df was less than

Table 35
Fit Measures for the Final Structural Model for Each Region

Fit Index	North Region	South Region
Chi-square Test	$\chi^2 = 62.82$, df = 43	$\chi^2 = 77.14$, df = 42
Chi-square/df	1.46	1.84
GFI	.91	.91
CFI	.96	.95
NFI	.90	.90
RMR	.03	.03
RMSEA	.06	.08

3.0 at 1.46 in the north county and 1.84 in the south county, and GFI, CFI, and NFI for both regions were over .09. Also, RMRs were less than .05 (.03 for both regions) and RMSEAs were less than .1 (.06 for north, and .08 for south county). After the modification process, all the modification indexes were less than 10.

Figures 9 and 10 illustrate the standardized coefficients for each path in each model. Each path represents the strength of the direct and indirect effects of the variables. Direct effects do not influence or mediate any other variable in the model, while indirect effects are mediated by one or more intervening variables. The total effect refers to the sum of the direct and indirect effects of the variable.

The two models differed in one aspect. Value orientation regarding nature was not found to be significant in explaining respondents' community attachment and other attitudes toward tourism in the north county. Respondents' community attachment was an antecedent that explained their attitudes toward participation, attitudes toward tourism impacts and tourism developments, and desired types of tourism development options in the north county.

The structural model for the north region could be explained by residents'community attachment, and when they are highly attached to their communities, they would have positive attitudes toward local participation, which would lead to different perceptions toward different aspects of tourism impact. This in turn, affected their attitudes toward tourism development and perceptions on desired types of tourism development options as they perceived tourism.

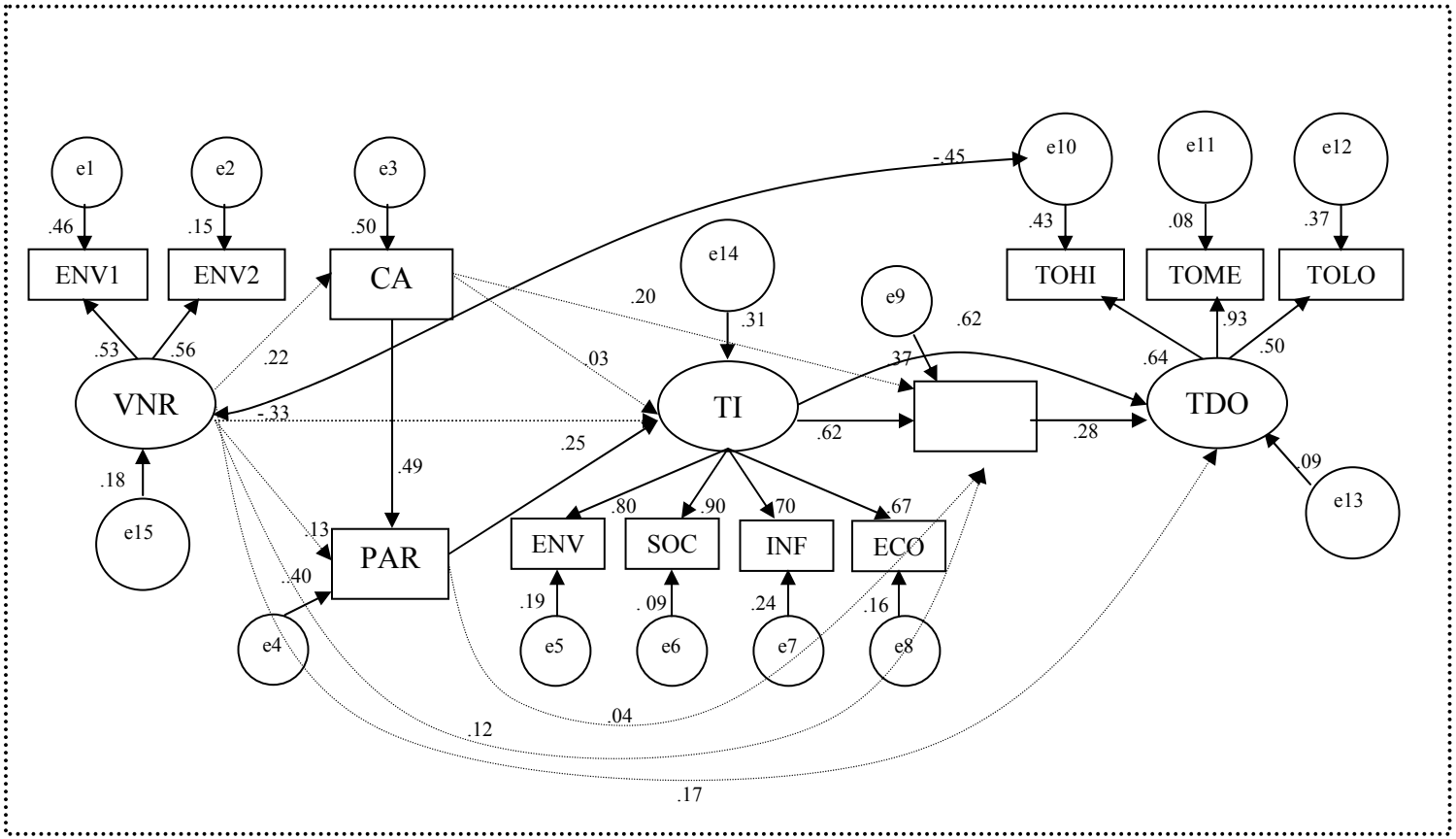

Fig 9. Standard Coefficients for the Final Structural Model – North County.
(Dashed lines indicate paths that are not significant at the .05 level)

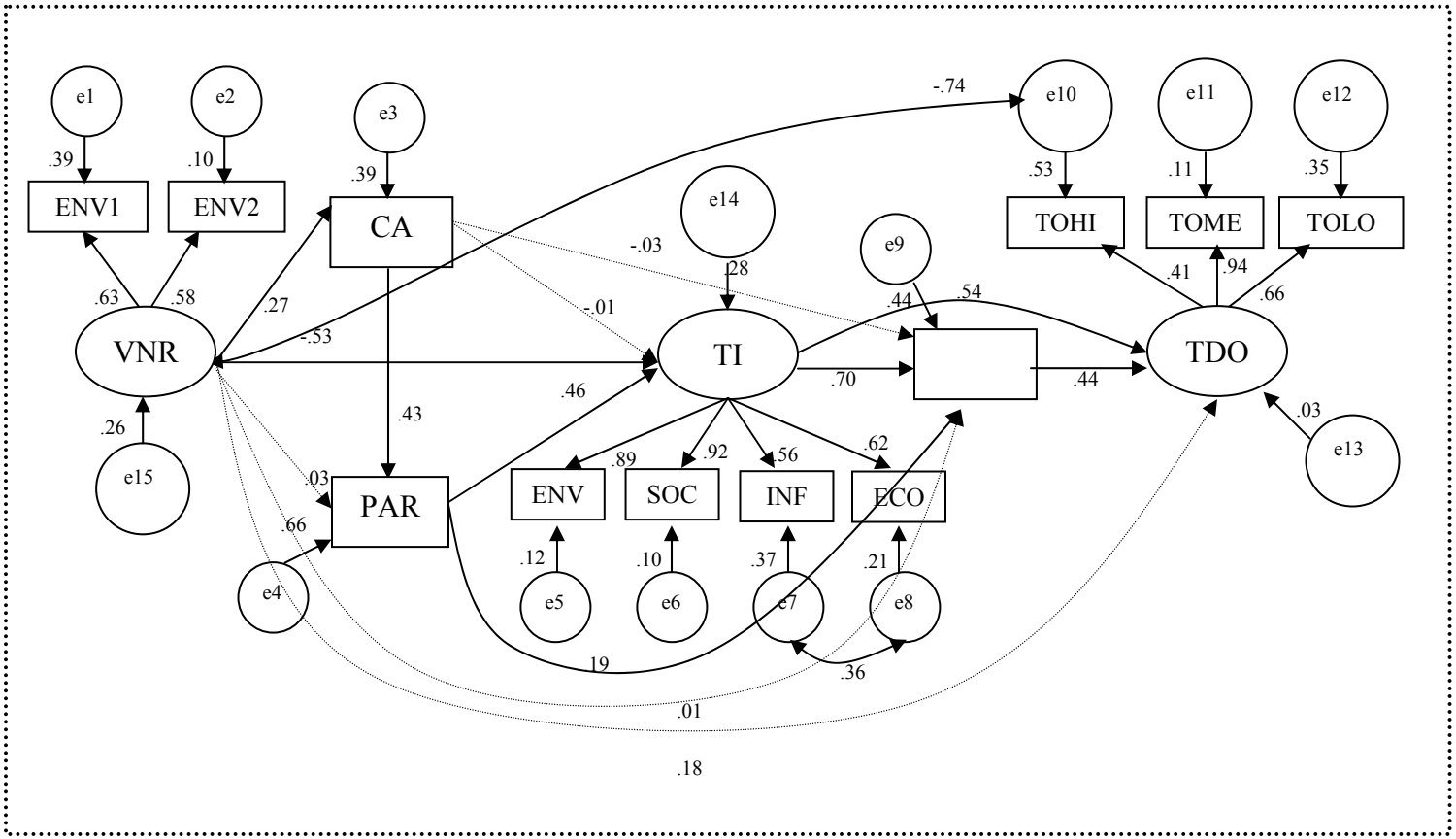

Fig 10. Standard Coefficients for the Final Structural Model – South County.
(Dashed lines indicate paths that are not significant at the .05 level)

The structural model run with south county data were similar to that of the north county model, but this seemed to provide more explanatory power among the relationships in the model. Although value orientations regarding nature did not explain residents' attitudes directly, it indirectly explained their attitudes toward participation through the community attachment variable. Thus, people's value orientations regarding nature seemed to have a higher explanatory function in the south county than in the north county. In south county, respondents with higher value orientations toward nature seemed to be more highly attached to their communities, and they had more positive attitudes toward local participation.

CHAPTER V

DISCUSSION AND CONCLUSIONS

Tourism, as a form of community development has become an attractive target for both researchers and practitioners. To better understand the process of tourism development, the purpose of this study was to examine how residents would perceive potential tourism developments in Brewster County, Texas. This was accomplished by looking at the effects of residents' value orientations toward nature, community attachment, attitudes toward community participation, and attitudes toward potential tourism induced changes and future development. The study further investigated tourism development options perceived to be desirable for the area by the respondents. The major objective of the study was to investigate whether the proposed community tourism development model fits the data in predicting residents' perceptual preferences in relations with their community needs.

This chapter contains discussions about the findings from the previous chapter and concludes with theoretical and managerial implications. Limitations of the study are then considered, and the chapter concludes with suggestions for future study.

Table 36
Results of Research Hypotheses Testing

	Hypotheses	Results
1a	Residents' value orientations regarding natural resources will positively affect their level of community attachment	Supported
1b	Residents' value orientations regarding natural resources will positively affect their attitude toward public participation	Supported (indirectly)
1c	Residents' value orientations regarding natural resources will negatively affect their attitude toward potential tourism impacts	Supported
1d	Residents' value orientations regarding natural resources will negatively affect their attitude toward tourism development	Indirectly Supported
1e	Residents' value orientations regarding natural resources will affect their perceptions on desirability of different types of tourism development options	Supported
2a	Residents' attachment to their community will influence their attitude toward potential tourism impacts	Rejected
2b	Residents' attachment to their community will influence their attitude toward tourism development	Rejected
2c	There will be a positive relationship between residents' community attachment and their attitudes toward public participation	Supported
3a	Residents' attitude toward community participation will be positively related with their attitude toward potential tourism impacts	Supported
3b	Residents' attitude toward community participation will be positively related with their attitude toward tourism development	Supported
4a	There will be a positive relationship between residents' attitude toward potential tourism impacts and their attitude toward tourism development	Supported
4b	There will be a positive relationship between residents' attitude toward potential tourism impacts and their opinions on desirable types of tourism development options	Supported
4c	Residents' attitude toward tourism development will have influence for what types of tourism development options residents will think desirable	Supported
5	The residents of north county will have differing attitudes compared to the residents of south county	Partially Supported

Summary and Discussion of the Findings

The primary purpose of this study was to examine the factors that influence residents' attitudes toward tourism, and how these attributes influenced gateway community residents' attitudes toward tourism impacts and tourism development. To answer this question, relationships among residents' value orientations regardning nature, their attachment to the community, and attitude towards local participation were were tested using a series of hypotheses (Table 36). To achieve this purpose, a self-administered survey sampling design was used. Data collected through this process revealed several findings about attitudes toward potential tourism induced changes and related development.

The Antecedents: Value Orientations regarding Nature, Community Attachment, and Attitude toward Participation

The Brewster County, Texas residents were highly attached to their community of residence in varying degrees, and their values were oriented more toward protection of the environment. These residents were positively oriented toward protecting natural resources for the future, beleived that there are limits to the use of natural resources, and that nature is vulnerable in the presence of human control. Irrespective of what part of the County they live in, only 31 respondents (12%) answered negatively (rated 1 or 2 out of 5 point scale) on any of the 11 community attachment items.

Although they have positive attitudes towards community participation and are aware of the fact that active participation and ability to influence decisions and policies as a resident are important, 45% of all the respondents had not participated in public affairs in the past, nor were willing to be involved with any committee or organization. The reasons they gave for not participating included time constraints (43%), no interest (20.6%) or lack of information (13%). On the contrary, 55% of the respondents were involved with at least 2 local organizations or committees. Most were related to tourism or environmental conservation.

Attitudes toward Tourism

As expected, attitudes toward tourism impacts fell into dimensions of environmental, sociocultural, infrastructure, and economic. Although respondents expected that environmental and sociocultural impacts induced by tourism could be negative, they perceived that infrastructure and economic impacts of tourism would influence their community positively. Among the infrastructure impact items, only the "amount of recreational facilities" was rated negatively when the possible tourism impacts were compared with the ratings of current conditions. This implies that residents were already expecting crowding or use conflicts associated with tourists. In addition, although the respondents perceived negative impacts due to tourism development, they had positive attitudes toward tourism development in general, and were supportive of its development in their area. This may be due to the fact that 39% of

the respondents are dependent on the tourism industry and 20% are retired residents. It is likely that those who live on the industry are positive toward the benefits that expansion of tourism can bring in to their community and to their life.

In addition, those who had higher environmental values on human abuse dimension scored environmental and sociocultural tourism impacts more negatively and those who had higher environmental values on human control dimention scored infrastructure and economic tourism impacts more positively. Therefore, high impact tourism development such as franchise businesses, amusement parks, and resorts were not considered to be desirable type of development by those who thought human are abusing nature. Medium and low impact developments such as festivals, small businesses, educational facilities, camp grounds and hiking trails were perceived to be desiable for Brewster County by those who thought human can control nature for their use.

Those who perceived that tourism would bring negative environmental and sociocultural impacts felt that high and medium impact options were less desirable, but those who perceived that tourism would bring in positive infrastructure and economic impacts considered that only low impact development options were desirable for them. Overall, although residents have positive attitudes toward tourism development, they still did not think high impact development options were desirable for their communities, while medium and low impact options were desirable for them.

Relationships and Model Fit

Respondents' value orientations toward nature and their attitudes toward participation were found to be antecedents to residents' attitudes toward tourism. When people are aware of the importance of natural resources, they are likely to perceive negative environmental and social impacts caused by tourism, which is likely to affect their attitude toward future tourism development. This may also influence their attitudes toward what types of tourism development are desirable in their area. Specifically, those whose value orientations are toward nature would have negative attitudes toward environmental and sociocultural impacts induced by tourism. This relates to perceptions that low impact tourism development was more appropriate for their community. On the other hand, those whose value orientations were more toward human use and control were more likely to have positive attitudes towards infrastructure and economic impacts. This caused them to perceive high and medium impact tourism developments as more suitable for their area.

Unlike what had been done in the previous research, data collected for this study did not support hypotheses related to community attachment. It might be due to the fact that all the Brewster County respondents were consistently highly attached to their areas, which made a directional relationship insignificant among the constructs. The review of past studies also suggested that there could be mixed or opposite outcomes regarding the construct of residents' community attachment, which might have affected in the non-

significant relationships between community attachment with other constructs (Gursoy, et al., 2002; McGehee & Andereck, 2004).

Another possibility is that it might not be attitudes toward tourism development, but rather the types of development that is important. That is, anyone, regardless of how high their community attachment level might be, can be supportive of the right kind of tourism development. It is possible that highly attached residents have positive attitudes towards low impact tourism development, while those with low community attachment would support tourism development options that had somewhat higher levels of impact.

Yet, community attachment was found to indirectly influence respondents' attitudes toward participation, which affects their attitude toward tourism. When a person is aware of the importance of natural resources, and is highly attached to his/her community, there is more likelihood of him/her participating in community affairs, organizations, or committees to make his/her opinions heard and to protect nature. This affects his/her attitude toward tourism impacts. When a person perceives the impacts could be negative, he/she will not support future tourism developments while the person will support future tourism development when he/she perceives tourism impacts could be minor or even beneficial for them.

This perception could also influence the person's view on what types of tourism development options are desired in the area. For instance, an individual with negative attitudes toward tourism impacts but is supportive of tourism development because of the hope for economic benefits, would support low impact tourism developments such as trails or campgrounds. However, people with a positive attitudes toward tourism

impacts, especially from an economic perspective, would support tourism development and also support high impact developments that could bring in outside investments or outside money in a short period of time. This was evidenced from the findings in the previous section.

There were significant positive relationships between the variables of attitude toward tourism impacts and tourism development. In particular, the more the residents felt that tourism would bring in negative environmental and sociocultural changes, the more they had a negative attitude towards tourism development. However, the more they expect to feel positive infrastructure and economic impacts, the more they would have positive attitudes toward potential tourism development.

This interpretation is made because the items included in this variable had directions. For example, items included here to measure the environmental impacts dimension had a number of statements that expressed negative aspects of the impacts such as “amount of traffic in the area,” “amount of human made noise” “amount of litter and other trash,” and so forth. In turn, items for infrastructure and economic impact dimensions had many positive statements such as “quality of public services,” “quality of health and medical services,” “amount of entertainment opportunities,” “quality of employment,” and so on. If they were to have differently directed items, for example more positive environmental and sociocultural impact items and more negative infrastructure and economic impact items, the results would have changed in a different way.

This can also be explained through social exchange theory. Social exchange theory is based on the notion that people weight their relationships in terms of cost (negative values) and rewards (positive values) (Ap, 1992). According to the theory, humans tend to behave in a manner that allows them to "minimize their costs and to maximize their rewards (West & Turner, 2001)." People normally do not want to lose what they have. If they had to lose something, they would often want something else in place of the thing they lost. Perdue et al. (1999) supported the social exchange theory based on findings that showed residents who perceived more positive outcomes from tourism were also more likely to be positive in assessing the potential for a better quality of life.

Based on this theory, it is natural that people have positive attitudes toward possible positive outcomes (positive sociocultural and economic changes) and less positive attitudes toward possible negative outcomes (negative environmental changes) for them. This appears to have led residents to support tourism development largely as a community development strategy.

Regional Differences

There were several differences between the attitudes of north and south county residents on some variables. Compared to north county residents, south county residents values were more favorable toward nature, and they were more attached to their community. They also differed on perceptions of tourism impacts and development. In

particular, south county residents perceived more negative tourism impacts on environmental and sociocultural aspects, and more positive tourism impacts on infrastructure and economic aspects compared to north country residents. This implies that south county residents are more sensitive toward tourism impacts, which means that they would not necessarily oppose tourism development, but would support developments that they feel would not bring in negative environmental and sociocultural impacts but rather positive infrastructure and economic impacts. In fact, residents from both regions had negative opinions on "prohibiting all new development," but north county residents had more positive opinions toward developments than the south county residents in terms of more restaurants, hotels, and places to hunt wildlife (the higher impact development options).

Previous research has suggested that certain physical characteristics of neighborhoods and residential locations do affect resident perceptions (Gilbert & Clark, 1997; Koegh, 1990). However, the results reported here only partially support this. A unique characteristic of the area, being a remotely located rural county, could have played a role in lending this result. Regardless of its residential characteristics and environment, opinions of overall residents are an important factor in the planning process of tourism, especially if it is a small scale community.

The second reason can be found in the sampling process. As mentioned in Chapter III, the subjects included in this study were chosen in a random manner, but were gathered by participants' willingness to participate. That is, all participants agreed on participating in this study regarding tourism and development. This could mean that

they are already feeling some degree of commitment to their community and are interested in tourism development issues in their area. This could have caused a bias in their responses, especially on community attachment, their attitude towards participation, and attitudes toward tourism development, thus showing no differences by regions.

The regions also differed in the structural relationships. In the north county, value orientations regarding nature were not found to be an effective variable in explaining residents' tourism attitudes. Rather, community attachment was the variable that most influenced residents' tourism attitudes through attitudes toward local participation. For the south region, value orientation was found to be a significant leading predictor of the structural model. This finding can be explained in part by the higher rating of the south county residents on the NEP scale. It can also be explained by the location of southern region, where they are the gateway communities to a large National Park and are adjacent to the State Park. Proximity to natural public lands might have affected residents to have higher value orientation regarding nature, or the proximity to nature could have initially attracted them to move there.

Previous research claimed that residents' community attachment was a significant factor in predicting their attitudes toward future tourism development and possibly tourism development options. For smaller, more rural and isolated area like Brewster county, residents' value orientations regarding nature were a significant factor in predicting their tourism attitudes. More inate feelings on the characteristics that constitue the area played an important role in predicting their tourism attitudes. Thus, having knowledge of these factors in advance of an actual development can be an

important part of the tourism planning process for successful and sustainable implementation.

Implications of the Research Findings

Theoretical Implications

The findings from the current study have several theoretical and practical implications. Theoretically, the results provided support for the findings of previous studies and presents more in-depth information by suggesting that 1) residents' value orientations toward nature and their attitudes toward community participation are the best determinant of their attitude toward tourism (Bramwell & Sharman, 1999; Clifford & King, 1993; Howe, et al., 1997; Koontz. 2003; Mesch, 1996; Mesch & Manor, 1998; Vaske & Kobrin, 2001; Vorkinn & Riese, 2001), and that 2) residents' attitudes towards desired tourism development options are important as well as their attitude toward tourism development for sustainable tourism planning process (Cole & Stankey, 1997; McCool & Cole 1997; Stankey, 1991).

Residents' value orientations regarding nature were a leading predictor, which is consistent with previous studies that addressed the determinants of people's attitudes in cognitive hierarchy theories (Fulton, et al., 1996; Homer & Kahle, 1988; Rokeach, 1973; Vaske & Donnelly, 1999) through the SEM approach. None of the research so far has

utilized the SEM approach to explain the causal relationships among residents' value orientation and various attitudinal perceptions. A majority of the past research applied traditional statistical methods to look at parts of the model one at a time, then combining the results. In this study, the entire model was analyzed while reflecting the error terms for each factor and variable in the results. Therefore, this method made it possible for the result to be more accurate.

This study also showed that value orientations regarding nature not only had a direct significant influence on residents' attitudes toward tourism, buy it also was a better predictor than the construct of community attachment, especially in a smaller rural region like the south part of the BB area. Besides the direct effects, the indirect effects of value orientations regarding nature on attitudes toward participation, and community attachment on attitudes toward tourism indicated that there were complex relationships with the other constructs which would not have emerged if the study had investigated only direct relationships among the constructs with conventional statistical methods.

The study findings also support the theoretical conceptualization that effects of tourism impact dimensions should be dealt with separately. Although named as tourism impacts, each dimension of tourism impacts (environmental, sociocultural, infrastructure, and economic) had a different effect on residents' attitudes toward tourism development (Doh, 2002; Gursoy, et al., 2002) and perceptions of desirable types of tourism development options.

These findings confirm the predictive power of value orientations regarding nature and attitude toward community participation on residents' attitudes toward

tourism. However, in this study, the direct influence of community attachment was found to be weak. This could have been caused by the fact that the definition of community was not specified in the questionnaire for the respondents to have consensus on what 'community attachment' might mean. Some respondents might have thought of 'community' as their city/town, while others might have thought it as Brewster County, and so forth. The effect of community attachment being weak, it is better for tourism planners to focus on educating the public about the importance of nature and its protection, as well as on the importance of their participation in local affairs.

Theoretical implications of this study are significant in two more ways. The first involves timing and the subjects, and the second involves the characteristics of the study area. Development of tourism is a complex process which should involve a consideration of diverse environmental, sociocultural, and economic structures. For example, from a sociocultural standpoint, planners should understand the complex and contradictory feelings of the local residents. On the one hand, residents seek change, novelty, and new experiences. On the other hand, they feel insecure, and worry about the changing sociocultural structure. From an environmental perspective, planners should be aware of the fact that some environmental destruction would trouble the residents. Gunn (1994) suggested that the most promising approach for tourism development involves a development 1) which causes low impact to the corresponding community, 2) is careful in process, 3) is appropriate and sensitive to the local natural and sociocultural environment, and 4) is readily integrated into the existing sociocultural and economic life of the community. In this sense, this study offers insights into

residents' attitudes toward tourism in its pre-development phase, and indicates the importance of conducting investigations prior to its establishment.

Attitudes toward desirable tourism development options were measured in this study. Most of the respondents preferred low to medium impact tourism developments in the BB region. Although a majority of the respondents were supportive of tourism development to various degrees, some types of development were clearly perceived as more acceptable, and others were viewed as less acceptable. Specifically, respondents did not want golf courses, resorts, or amusement park types of high impact developments in their community. Rather, they preferred historic, educational, or nature-based types of tourism development that is appropriate to attract certain types of visitors. Although the respondents were supportive of tourism developments, it was evident that they did not want intensive changes, but wanted developments based on the resources they already have. This is also consistent with the responses from the BB visitors (Shafer, et al., 2004).

A detailed result suggested that respondents from the north county perceived restaurants and hotels developments are more appropriate for their community, whereas residents from south county preferred businesses for bird watching or walking/biking trails. It might be due to the distance factor, where north county is farther from the BBNP, and that south county is closer to the NP. From the visitor survey, it was found that a majority of visitors to Marathon, one of the towns in north county, pass by the town without going into the park. Most of them just took a rest at a restaurant, or just stop for a break or to stay overnight (Shafer, et al., 2004). This makes north county

resident assume that restaurant and hotel types of development options are more appropriate for them.

On the whole, it could be concluded that historic, nature, and educational types of tourism developments were of greatest interest to the respondents at the time of the survey, with north county residents specifically preferring more quality restaurants and accommodation development. Therefore, accommodations and entertainment types of development can be suggested for the north area, while low impact recreation types of development are suggested for south county. It is also recommended that each region have its own theme or be specialized in the services they provide. That way, they would not be in competing situation but would be supportive of each other. Knowing the characteristics of communities and their preferences for tourism development options before the actual development can be of help in the planning process resulting in adequate facility distribution.

The underlying framework of this study was the Limits of Acceptable Change. Related to the LAC framework, the results from this study confirm the previous finding that it is more important to focus on understanding what conditions are desired or undesired by the residents, and what actions lead to acceptable goals in an area (Lindberg, et al., 1997; McCool & Patterson, 2000). The study asked desired types of development and possibly, how much impact due to tourism can be desirable and undesirable, thus making it possible for the planners and managers to ensure quality experience both for the residents and the visitors (McCool & Stankey, 1992).

The residents perceived that some types of development were unacceptable while some were desirable, but they did not want to prohibit all new development in their area. There were also varying degrees in the residents' attitudes toward tourism development, but the residents had different perceptions toward different types of tourism development options. Therefore, it can be implied that allowing acceptable change is more important and applicable than endorsing limits in the developmental efforts for the well-being of residents as well as for the visitors.

Practical Implications

Residents in these small gateway communities seemed to be positively disposed toward tourism. This does not imply that they do not have concerns about its impacts in their communities, but the specific concerns vary from place to place. However, it appears, tourism is a well accepted and well thought of industry in the BB region.

Many locals in the BB region were not born there but moved to this area because of its remoteness, solitude, undeveloped and unspoiled nature, etc. Admittedly there are very limited resources but people there have chosen an alternative lifestyle to get away from the stresses and pressures of more largely populated and developed places. Whilst this is not an affluent area and tourism is perhaps the best way to provide more income for some of the local residents, it is imperative that the nature and charisma of this vicinity –which is the exact thing that attracts people there in the first place – is preserved. This will become increasingly difficult as visitor numbers grow.

The BB region needs appropriate industry that compliments its ecology, and social networks. Most of the respondents seemed to feel that more tourism equals more people that will possibly damage environmental integrity of the area. Everything will change as it has in wherever there was an attempted development. Although tourism is a good source of outside income that impacts the community in mostly positive ways, its development in BB must have its foundation on the preservation of the remote desert lifestyle, and it should never take precedence over the community and what is best for the community. The preservation of the feel and spirit of Brewster County is of utmost importance to future development of the area's tourism-based economy, as these touch visitors to the area more intimately and indelibly than any others.

In this sense, many of the existing tourism venues in the Big Bend area could be improved. For instance, a true museum that reflects the many archeological and paleozoic discoveries in the area, establishment of a historic trail utilizing the locations near existing roads throughout the Brewster County and adjacent counties, establishment of a birding trail utilizing the many known birding locations throughout the BB region, or more festivals celebrating the culture/history of the area are good options based on the study results. There is Barton Warnock Environmental Education Center in Lajitas that interprets '570 million years of geological history and the biological landscapes of the Chihuahuan Desert' (Texas Parks and Wildlife Department, 2006). With a more active marketing strestegies, the Center may to provide its archeological, historical, and natural history profile of the Big Bend region to the growing number of visitors more effectively. A historic trail that depict the mining history of the local area and a birding trail with

educational and interpretive signages with a personed visitor center during the peak season can also impress the visitors from urban areas. Finally, based on many discussions and recent research with visiting tourists, it is clear that special attention must be focused on developing all-weather arts and historical/educational facilities, and programs to accommodate the naturalist clientele. The Big Bend is visited by many interested tourists and offers opportunities for school groups who come to enjoy the natural and cultural freatures of the area. They must expand on this, year-round.

Repeat visitation may be enhanced through a more diverse and distinctive types of tourism development. Lengths of stay may be extended if tourists have more and varied attractions to visit and different activities to pursue. However, making communities more distinctive through historic preservation, thematic design with cultural concepts and product specialization will not be easy to achieve due to diverse opinions the owners hold with a certain developmental policies/codes to meet (Richards & Hall, 2000). Therefore, collaboration between the government and the businesses, and the local participation in the community affairs are required to get a consensus on these matters.

Another important recommendation for BB area to enhance tourism is not by expanding development, but through better marketing and promotional strategies. New tourism could be beneficial, but only if done in a sustainable way while protecting the natural cultural, and historical integrity of the place. BBNP is one of the least visited national parks in the United States (NPS, 2005), and many Texans do not know where Alpine is or what the area has to offer. The events are not supported by some of the

neighboring county residents due to lack of publicity. In addition, there is the preconception among the general population about the hot weather in summer in West Texas, which makes the visitation drop drastically during the summer season. It is recommended that the local government and the industry seek professional help to better sell the region.

In addition, diverse issues were often focused on local involvement. Brewster County has a unique characteristic, that the city, the locals and new comers are all interacting to make their area more livable. There is also a local tourism organization, Visit Big Bend Tourism Council, which is composed of about 80 local tourism business owners. They were formed to put their effort on the betterment of the county-wide tourism industry. In this respect, collaborations between the government and the public to interactively develop its resources for tourism are already in place. In addition to that, the government must get local participation from citizens, and between communities under a uniform vision. Political support can be developed only when the community is provided with an opportunity to participate. Building this political support will, however, require strong leadership from those most engaged in the process.

When local residents are made to feel proud of their community as an asset, they may be more encouraged to contribute their time and effort through volunteer work. The uniting influence of a common psychological investment in the community affairs can create the solidarity and sense of common purpose among residents that help promote the community concept (Huang & Stewart, 1996).

For example, development in Lajitas has proven controversial. Visitors, as well as some of the local residents made negative comments regarding its recent resort and golf course development as catering only to the affluents, and being too commercialized with too much development. One respondet made a nagative comment on Lajitas as " *The bizarre resort was full of snooty people who 'don't get' the beauty of Big Bend as is an are trying to turn it into something else*." The example of Lajitas, provides some insight for planners who should be aware that a balanced approach to tourism may be difficult given different opinions among residents. With appropriate planning practice and cooperation, tourism can be increased minimally and responsibly, maintaining the unique character of the BB and to keep its sense of place through.

With these results in mind, it is hoped that this study can contribute to a balanced coexistence between tourism and natural environment in BB area, and eventually lead to betterment of quality of life of BB area residents. Also, it is hoped that this study can guide future tourism development scenarios for Brewster County, Texas.

Recommendations for Future Research

The main objective of tourism development is to ensure that opportunities are available for tourists to gain satisfying experiences and, at the same time, to provide a means for improving the way of life of residents of destination areas.

Undoubtedly, future tourism development will result in some kind of impacts in the corresponding community. Thus, for tourism in a destination area to flourish, its adverse impacts should be minimized and foreseen before the development, and at the same time, its positive impacts should be accentuated. Given the impacts that tourism development might bring in a community, it is important to gain an understanding of host population's view regarding its development. In this way, tourism development can obtain the support from the resident population, which in turn, can lead its development to a sustainable and successful one. In this sense, research such as this is an indispensable input to the planning of tourism destinations.

However, there were a few limitations in trying to interpret the results. First, the findings of this study are limited by the nature of the sampling process. Study design and sampling are two of the most important issues in monitoring communities. In essence, the analysis is based on a much smaller number of residents (258 respondents) compared to all the residents in BB area (the population of Brewster County was 9,247 in 2003). The results included in this study might not be generalized to the population at large due to sampling biases that might have existed, although certain attributes are generalizable to other sites with similar characteristics.

The sample for this study is represented by older, and white Anglo Americans (84.8%). The average age of the respondents were 54 years old, and only 14,7% were between 20 and 40 years old. Also, those who do not own any property(ies) in the county consists only 18% of the respondents and only 26.9% are new residents. According to the U.S. Census profile (U.S. Census, 2000), the composition of ethnic

groups in the county include 43.6% Hispanic and Latino population and 27.4% of the population are between 20 and 40 years old. Therefore, it can be inferred that the sample clearly underrepresented the overall population of the Brewster county. Therefore, attitudes of these groups such as younger generations, Mexican and Hispanic population, those who has not lived here long (length of residency), and those who do not own any property(ies) in the county, should also be explored by utilizing other types of data acquisition method that can provide additional insights to the study.

In addition, migration into and out of the region can complicate a study such as this. Because the population of a high-turnover community is constantly in flux, new respondents must be continually selected to replace those who have left. Developing a sampling frame for depressed rural areas may be particularly challenging because of the remoteness of some inhabitants, the growing numbers of illegal, non-English speaking immigrants who are wary of being located for any reason, and the distrust indigenous groups feel for research and researchers. There were only three people out of 258 respondents who participated in the Spanish version of this study, which may indicate that any views specific to the Hispanic/Latino culture in the region were under represented. For a future study, inclusion of qualitative method may help increase Hispanic participation which can provide additional insights (Andereck, et al., 2005).

Second, although indicators were developed after identifying issues that residents are faced with through informal interviews and comments, more site specific categories and indicators such as water resource issues, wildlife destruction through hunting and fishing, over collection of rocks, unfitting architectural style, damage to geological

formation, etc. should be tested to fully understand residents' attitude towards desired types of tourism development. Improvements on the scale that measures people's value orientations regarding nature are also needed. A number of respondents idicated some difficulty understanding some items in the NEP scale. Some rewording might be needed on these items, or a modified version of the NEP scale can be used in the future studies (Manoli, et al., 2005). Efforts are also needed to find an appropriate theoretical concept that can better explain relationships among all the constructs examined here. Indeed, it is recommended that concept of destination life cycle or life cycle within the communities be used, especially for a study with a small sample size.

Third, the concept of tourism impacts could not have been well understood by the respondents, although March (1978) and McGehee and Andereck (2004) noted that rational choice can involve guesses about the future consequences of current actions and preferences. Since these items were to measure "potential" tourism impacts, they may have not yet experienced any changes due to tourism, but pretended that they had. In essence, these residents welcome tourism development, but they are irresolute to the positive and especially to the negative impacts given the stage of tourism development that BB area is experiencing. Thus, improved measures of the potential tourism impacts concept should be developed to aid future research.

As tourism development advances in communities, their residents are inevitably affected by its outcomes. In agreement with this pattern, it appears that studies on resident perceptions are getting popular. Thus, an analysis of the environmental, sociocultural, infrastructure, and economic variables as well as attitude towards tourism

development should be studied from a longitudinal view before any actual tourism development plan can be further established in this area. Brewster County residents' attitude towards tourism development is currently mixed, but it is difficult to expect the way it will change and the amount of change the residents can tolerate. Thus, future research needs to investigate changes in resident attitudes towards tourism after 1 or 2 years of tourism expansion. What is also important is that a critical evaluation of future plans for tourism development in Brewster County would be desirable, before the attitudes of residents get negative.

Fifth, place meaning, as one important human dimension of ecosystem management, continues to grow in importance as place related policies and their implications have increasingly become subject to public scrutiny, often resulting in debates. Social, emotional, and symbolic factors are becoming as crucial to resource management decision making as economic and biological factors are. Thus, it is needed to expand residents' knowledge about the critical issues such as possible tourism development or new constructions on the area, as well as to assess the awareness and impact of those issues at appropriate times i.e..

Also, the growing importance of understanding the deeper intangible values and meanings of places and the need to consider them in natural resource management and planning should be more dealt with in the future. Many research are already constructed on the environmental attitudes, value orientations regarding nature or community attachment. However, other values concepts that encompass these three concepts, such

as basic community/place values or value orientations regarding lifestyle may be worth applying in studies such as this.

Big Bend residents may have values oriented toward nature, but before that, it is possible that the BB residents value their community, the BB region, and the lifestyle in the region that is slow-pace and pristine. The reason why the residents moved to the area and chose to live there might have broader implications that can better explain their attitudes toward development. In fact, the results show that different regions had different perceptions regarding value orientations regarding nature variable. Although residents from both regions had high value orientations regarding nature, the structural model was only valid in the southern region, meaning different environment and residents' value orientations toward different types of lifestyle might influence their attitudes toward tourism.

Seventh, it is also recommended to compare gateway communities 1) with varying level of visitation (high vs. low visitation sites) and physical scale (large community with high population density vs. small community with low population density), 2) of varying regional context (with NPs surrounded by other federal lands and natural resource extractions activities to those surrounded by a longtime fully urbanized economy), 3) or that are only now realizing the potential benefits to engage planning efforts regarding protection and rural development with parks that are forced into post-development planning led by the rapid growth of residential populations at the boundary of a park (Machlis & Field, 2000).

Lastly, it is also advised to incorporate objective variables comparing physical characteristics of different regions. For example, distance to the NP, proximate views, distance to water, landscape patches can be used as variables that explain such differences. Geographic Information System (GIS) can greatly help operationalize these types of data and analysis, while utilizing land-use data or satellite maps.

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APPENDIX A

COVER LETTERS

RESIDENT SURVEY ON REGIONAL TOURISM DEVELOPMENT

Dear Resident,

The Department of Recreation, Parks, and Tourism Sciences, Texas A&M University is conducting a survey in Brewster County to obtain information about community attitudes toward tourism development. Tourism may bring about changes that could affect both the community and your life in the Big Bend area. You may like some of these changes and dislike others. Knowing how residents view tourism is important for guiding decisions and the planning process of tourism development in the area.

You were one of only a few that was randomly selected to be included in this study. Your input is vital to ensure that your needs and concerns are considered in the tourism planning process. Please answer all questions and tell us about anything else we need to know. All of your answers will be treated with complete confidentiality. The time required for completing this questionnaire should not exceed 20 minutes and we hope you will find it interesting and enjoyable.

Please take the time to help us by completing this questionnaire and returning it in the enclosed postage-paid envelope. There are ***English AND Spanish*** versions in the survey booklet. ***You may choose whichever version that is convenient for you to fill out.*** If there are any special comments about tourism that you would like to share with us, please write them in the space provided on the last page. When the questionnaire is completed, a copy of the results will be available upon request.

When you return your completed questionnaire, your name will be entered into drawing for ***four prizes of $25 value. Winners will be drawn as soon as the survey process is complete, and the prizes will be sent to you via US mail.***

This study has been reviewed and approved by the Institutional Review Board – Human Subjects in Research, Texas A & M University. For research-related problems or questions regarding subjects' rights, the Institutional Review Board may be contacted through Dr. Murl E. Bailey, IRB Coordinator, Office of Vice President for Research and Associate Provost for Graduate Studies at 979-845-1811.

If you have any questions about the questionnaire, please contact Minsun Doh at 979-845-5419 or Dr. Scott Shafer at 979-845-3837. Thank you in advance for any help you can contribute to the success of this study.

Sincerely,

Minsun Doh,
Research Assistant

RESIDENT SURVEY ON REGIONAL TOURISM DEVELOPMENT

Dear Resident,

About a month ago, you received a questionnaire asking for your opinions about tourism development in Big Bend area. As of today, we have not yet received your completed questionnaire. If you have completed and sent it in recently, please accept our sincere thanks. Your responses will provide important information for guiding decisions on local development. We are writing to you again because of the importance each questionnaire has to the usefulness of this study. Just in case your questionnaire has been misplaced, a replacement is enclosed.

Please take the time to help us by filling out this questionnaire and returning it in the enclosed postage-paid envelope. There are ***English AND Spanish*** versions in the survey booklet. ***You may choose whichever version that is convenient for you to fill out.*** If there are any special comments about tourism in your community that you would like to share with us, please write them in the space provided on the last page. When the questionnaire is completed, a copy of the results will be available upon request.

When you return your completed questionnaire, your name will be entered into drawing for ***four prizes of $25 value. Winners will be drawn as soon as the survey process is complete, and the prizes will be sent to you via US mail.***

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If you have any questions about the questionnaire, please contact Minsun Doh at 979-845-5419 or Dr. Scott Shafer at 979-845-3837. Thank you in advance for any help you can contribute to the success of this study.

Thank you very much for your help in contributing to the success of this study.

Sincerely,

Minsun Doh,
Research Assistant

CUESTIONARIO DE RESIDENTES SOBRE DESARROLLO DE TURISMO REGIONAL

Estimado(a) Residente,

El Departamento de Recreación, Parques, y Ciencias de Turismo, la Universidad de Texas A & M está administrando un cuestionario en Brewster County para obtener información sobre actitudes sobre el desarrollo de turismo. Turismo puede empezar cambios que pueden afectar la comunidad y su vida en el área de Big Bend. Usted puede gustar algunos de estos cambios y no gustar otros cambios. Sabiendo como residentes ven turismo es importante para guiar decisiones y el programa de planeación de desarrollo de turismo en el área.

Usted fue uno de solamente pocos que fueron seleccionados al azar para estar incluido en este estudio. Sus opiniones son muy importantes para asegurar que sus necesidades y preocupaciones están consideradas en el programa de planeación de turismo. Por favor contesta todas las preguntas y díganos sobre algo más necesitamos saber. Todas de sus respuestas serán mantenidas confidenciales. El tiempo para completar este cuestionario no debe exceder 15 minutos y esperamos que usted piense que es interesante y agradable.

Por favor toma el tiempo para ayudarnos por completando este cuestionario y devolviendo lo en el sobre adjunto, con franqueo. Hay versiones en ***Inglés Y Español*** en el libreto. ***Usted puede elegir cualquier versión que es conveniente para usted para llenar.*** Si tiene comentarios especiales sobre el turismo que usted le gustaría compartir con nosotros, por favor escribe los en el espacio proveído en la última página. Cuando usted complete el cuestionario, una copia de los resultados estarán disponibles al final del proyecto y le serán provistos a pedido.

Cuando usted devuelve su cuestionario completado, su nombre estará entrado en un sorteo para ***cuatro premios de valor de $25. Los ganadores serán elegidos al final del proyecto, y los premios estarán enviados a usted por el correo de los Estados Unidos. (US Mail).***

Esta investigación ha estado revisada y apropiada por el "Institutional Review Board-Human Subjects in Research, Texas A & M University" (Comité Revisión Institucional-Sujetos Humanos en Investigación, Universidad de Texas A & M). Para problemas relacionados con investigaciones o preguntas relacionadas con los derechos de participantes, el Comité Revisión Institucional puede estar contactado a través del Dr. Murl E. Bailey, IRB Cordenador, Oficina de Vice-Presidente para Investigación y Asóciate Rector (Provost) para Estudios Graduados usando el número 979-845-1811.

Si usted tiene cualquier pregunta sobre el cuestionario, por favor llama a Minsun Doh en el número 979-845-5419 o Dr. Scout Shafer en el número 979-845-3837.

Sinceramente,

Minsun Doh
Asistente de Investigación

CUESTIONARIO DE RESIDENTES SOBRE DESARROLLO DE TURISMO REGIONAL

Estimado(a) Residente,

Casi tres semanas pasadas, usted recibió un cuestionario pidiendo sus opiniones sobre el desarrollo del turismo en el área de Big Bend. A partir de hoy, nosotros no hemos recibido su cuestionario completado. Si usted lo ha completado y lo envío recién, por favor acepta nuestro agradecimiento sincero. Sus respuestas van a darnos información importante para guiar decisiones sobre desarrollo local. Le estamos escribiendo otra vez porque cada cuestionario es muy importante a este estudio. En caso que su cuestionario está perdido, un sustituto está adjunto.

Por favor toma el tiempo para ayudarnos por completando este cuestionario y devolviendo lo en el sobre adjunto, con franqueo. Hay versiones en ***Inglés Y Español*** en el libreto. ***Usted puede elegir cualquier versión que es conveniente para usted para llenar.*** Si tiene comentarios especiales sobre el turismo que usted le gustaría compartir con nosotros, por favor escribe los en el espacio proveído en la última página. Cuando usted complete el cuestionario, una copia de los resultados estarán disponibles al final del proyecto y le serán provistos a pedido.

Cuando usted devuelve su cuestionario completado, su nombre estará entrado en un sorteo para ***cuatro premios de valor de $25. Los ganadores serán elegidos al final del proyecto, y los premios estarán enviados a usted por el correo de los Estados Unidos. (US Mail).***

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Muchas gracias para su ayuda contribuyendo al éxito de este estudio.

Sinceramente,

Minsun Doh
Asistente de Investigación

APPENDIX B

QUESTIONNAIRES

No:

Tourism in Big Bend Region

Tell us your views

ENGLISH

Dear Resident, Texas A&M University and the Visit Big Bend Tourism Council are working together to better understand tourism in Brewster County. Your name was one of only a few that was selected to be included in this study. Your input is vital to ensure that your needs and concerns are considered in the tourism planning process.

All of your answers will be treated with complete confidentiality. If you have any questions or concerns, please contact:

Minsun Doh
mdohrpts@tamu.edu
979-845-5419

Dr. Scott Shafer
sshafer@tamu.edu
979-845-3837

2261 Dept. of Recreation, Park and Tourism Sciences
Texas A&M University

SECTION 1. LIVING IN BREWSTER COUNTY

1. Do you live in the Brewster County area throughout the year? ☐ YES ☐ NO

   * **IF YES,** how many years have you lived in the Brewster County? ____ years

   * **IF NO,** about how many months of a year do you live in Brewster County? ____ months

2. If you moved to this area, what was the primary reason for moving here?

_____

3. Please mark the place you consider your community (Please check ONE).

   ☐ The neighborhood you live in ☐ The city/town you live in.

   ☐ Brewster County ☐ West Texas ☐ Other: _____

4. Do you own (a) house(s) or property(ies) in Brewster County? ☐ YES ☐ NO

5. Do you consider your work related to tourism? ☐ YES ☐ NO

   * **IF YES,** what best describes your work (Please check ONE)?

   ☐ Nature tourism (parks, trails, etc.) ☐ Historic/cultural tourism

   ☐ Educational facilities (museum, visitor centers, etc.) ☐ Recreational (rafting, hunting, etc.)

   ☐ Visitor services (restaurants, lodging, etc.) ☐ Other: _____

   * **IF NO,** what industry do you work in? (Please state the industry, not the company)

   _____

6. What are some of the primary recreational activities that you do in your spare time?

_____

SECTION 2. FEELINGS ABOUT YOUR COMMUNITY

Please tell us how much you agree or disagree with the following statements that ask about your feelings about the community you live in. Please circle a number that best reflects your opinion for each statement (1= Strongly disagree, 3= neutral, 5= strongly agree).

	Strongly disagree		**Neutral**		**Strongly agree**
1. Overall, I am very attached to this community……..	1	2	3	4	5
2. This community is very special to me……	1	2	3	4	5
3. I have an emotional bond with this community — it has meaning to me…….	1	2	3	4	5
4. I feel like I am an important part of my community……..	1	2	3	4	5
5. If I had an opportunity to move away from this community, I would……	1	2	3	4	5
6. I am interested in what is going on in my community…..	1	2	3	4	5
7. I have developed good friendships in this community…..	1	2	3	4	5
8. What happens in my community is important to me…….	1	2	3	4	5
9. I am proud to live in this community…….	1	2	3	4	5
10. I am willing to invest my talent or time to make my community an even better place to live……...	1	2	3	4	5
11. This community is an ideal place to live……..	1	2	3	4	5
12. I feel commitment to this community……..	1	2	3	4	5

SECTION 3. PARTICIPATION IN TOURISM DEVELOPMENT

In this section, we ask how much you may agree or disagree with statements about community participation. Please rate how you feel about the following statements by circling the appropriate response. A simple definition of tourism to keep in mind as you respond is "Any activity or place that brings people into the community as visitors" (1 = strongly disagree, 3 = neutral, 5 = strongly agree).

	Strongly disagree		**Neutral**		**Strongly agree**
1. I, as a resident, should be able to participate in local decision making process…….	1	2	3	4	5
2. I am interested in local tourism development activities….	1	2	3	4	5
3. I wish to be involved in local tourism decision making process…….	1	2	3	4	5
4. I am able to influence decisions and policies related to local tourism development……..	1	2	3	4	5
5. I would like to serve on a committee involved in local tourism development activities……...	1	2	3	4	5
6. In the past 12 months, I have been active in participating in city/public meetings about possible local tourism development ……...	1	2	3	4	5

7. Do you belong to any local clubs, groups, organizations, or associations? ☐ YES ☐ NO

*** IF YES,** a) how many clubs, groups organizations, or associations are you involved in? __

b) How many of them are related to tourism? _____

c) How many of them are related to environmental conservation? _____

d) How many hours a month do you devote to serving on them? _____

*** IF NO,** What is the main reason that you do not participate in the clubs, groups, organizations, or associations (Please check ONE)?

☐ Lack of information ☐ Lack of enthusiasm ☐ Time constraint

☐ No interest ☐ Other: _____

SECTION 4. VALUE ORIENTATIONS REGARDING HUMANS & NATURE

Please indicate how much you agree or disagree with each statement on how you see natural environment. For each statement, please circle a number that best reflects your opinion (1 = strongly disagree, 3 = neural, 5 = strongly agree).

	Strongly disagree		**Neutral**		**Strongly agree**
1. We are approaching the limit of the number of people the earth can support…….....	1	2	3	4	5
2. Humans have the right to modify the natural environment to suit their needs…….	1	2	3	4	5
3. When humans interfere with nature it often produces disastrous consequences……...	1	2	3	4	5
4. Human ingenuity will insure that we do NOT make the earth unlivable...……...	1	2	3	4	5
5. Humans are severely abusing the environment……...	1	2	3	4	5
6. The earth has plenty of natural resources if we just learn how to develop them.....	1	2	3	4	5
7. Plants and animals have as much right as humans to exist……..	1	2	3	4	5
8. The balance of nature is strong enough to cope with the impacts of modern industrial nations.....	1	2	3	4	5
9. Despite our special abilities humans are still subject to the laws of nature……..	1	2	3	4	5
10. The so-called "ecological crisis" facing humankind has been greatly exaggerated.....	1	2	3	4	5
11. The earth is like a spaceship with very limited room and resources……	1	2	3	4	5
12. Humans were meant to rule over the rest of nature…...	1	2	3	4	5
13. The balance of nature is very delicate and easily upset.	1	2	3	4	5
14. Humans will eventually learn enough about how nature works to be able to control it…….	1	2	3	4	5
15. If things continue on their present course, we will soon experience major ecological catastrophe……..	1	2	3	4	5

SECTION 5. IMPORTANT CONDITIONS FOR YOUR COMMUNITY

On the left, please indicate how you feel about the following things as they exist now in Brewster County. On the right side, please indicate how you feel the same things might change (for better or worse) if additional tourism develops in Brewster County.

Current Condition:						**Tourism development will:**				
Poor		**Average**		**Excellent**		**Worsen**		**Not Change**		**Improve**
1	2	3	4	5	Amount of traffic in the area	1	2	3	4	5
1	2	3	4	5	Amount of human made noise	1	2	3	4	5
1	2	3	4	5	Amount of human made structures developed in the area	1	2	3	4	5
1	2	3	4	5	Amount of natural open spaces	1	2	3	4	5
1	2	3	4	5	Quality of the natural environment	1	2	3	4	5
1	2	3	4	5	Number of people in the area	1	2	3	4	5
1	2	3	4	5	Access to transportation (airport, highways, rail, etc.)	1	2	3	4	5
1	2	3	4	5	Air quality	1	2	3	4	5
1	2	3	4	5	Water quality	1	2	3	4	5
1	2	3	4	5	Waste management	1	2	3	4	5
1	2	3	4	5	Amount of wildlife	1	2	3	4	5
1	2	3	4	5	Appearance of the area	1	2	3	4	5
1	2	3	4	5	Quality of public services (police, fire protection, education, etc.)	1	2	3	4	5
1	2	3	4	5	Quality of health and medical services	1	2	3	4	5
1	2	3	4	5	The peace and tranquility of the area	1	2	3	4	5
1	2	3	4	5	Amount of litter & other trash	1	2	3	4	5
1	2	3	4	5	Amount of educational opportunities	1	2	3	4	5

SECTION 5. IMPORTANT CONDITIONS FOR YOUR COMMUNITY - CONT'D

Current condition:						**Tourism development will:**				
Poor		**Average**		**Excellent**	**Worsen**			**Not Change**		**Improve**
1	2	3	4	5	Amount of entertainment opportunities	1	2	3	4	5
1	2	3	4	5	Amount of recreational opportunities	1	2	3	4	5
1	2	3	4	5	Conservation of local cultural assets	1	2	3	4	5
1	2	3	4	5	Small town atmosphere	1	2	3	4	5
1	2	3	4	5	Community spirit among local residents	1	2	3	4	5
1	2	3	4	5	Understanding of different people and cultures	1	2	3	4	5
1	2	3	4	5	Personal safety and security	1	2	3	4	5
1	2	3	4	5	Crime rate	1	2	3	4	5
1	2	3	4	5	Relationship between residents and tourists	1	2	3	4	5
1	2	3	4	5	Your personal income	1	2	3	4	5
1	2	3	4	5	Employment opportunities	1	2	3	4	5
1	2	3	4	5	Quality of employment	1	2	3	4	5
1	2	3	4	5	Money generated by local businesses	1	2	3	4	5
1	2	3	4	5	Property value (cost of real state)	1	2	3	4	5
1	2	3	4	5	Cost of living in the area	1	2	3	4	5
1	2	3	4	5	Overall quality of life	1	2	3	4	5

Is there any other thoughts on what will change due to tourism development in Brewster County?

_____

_____

SECTION 6. YOUR OPINIONS ON TOURISM DEVELOPMENT

In this section, we would like to ask you to indicate whether you are generally in favor of or opposed to tourism development in your area. Please indicate how strongly you agree or disagree with each statement by circling an appropriate number (1 = strongly disagree, 3= neutral, 5 = strongly agree).

	Strongly disagree		**Neutral**		**Strongly agree**
1. Overall, the benefits of tourism development in my community will outweigh its costs…….	1	2	3	4	5
2. In general, new tourism development should be actively encouraged in my community…….	1	2	3	4	5
3. My community can handle more tourism development…	1	2	3	4	5
4. Increased tourism would hurt my community's quality of life……...	1	2	3	4	5
5. Tourism should play a vital role in the future of the Big Bend area…….....	1	2	3	4	5
6. I support new tourism development in my community….	1	2	3	4	5
7. Tourism looks like the best way to help my community's economy in the future…….	1	2	3	4	5
8. Tourism development in my community will benefit me or some member of my family….....	1	2	3	4	5

SECTION 7. TYPES OF DEVELOPMENT FOR THE COMMUNITY

The following are questions about the future development of your community. Please rate by circling a number that best represents how desirable or undesirable each item is.

	Strongly undesirable		**Neither**		**Strongly desirable**
1. Prohibiting all new development……	1	2	3	4	5
2. Development of franchise businesses….....	1	2	3	4	5
3. Businesses that attract tourists to the community……	1	2	3	4	5
4. More small independent businesses (gift shops, bookstore, etc.)……..	1	2	3	4	5
5. Increased places to hunt wildlife…….	1	2	3	4	5
6. Development of businesses for bird-watching……	1	2	3	4	5
7. Development of more places to camp…….	1	2	3	4	5
8. Developing new trails for walking or biking..……..	1	2	3	4	5
9. Development of historic sites …….	1	2	3	4	5
10. Providing facilities which would educate visitors about the nature……	1	2	3	4	5
11. Development of more golf courses……...	1	2	3	4	5
12. Development of more resorts……	1	2	3	4	5
13. Development of amusement park type facilities……	1	2	3	4	5
14. Hosting events such as festivals, etc……	1	2	3	4	5
15. Development of more hotels…….	1	2	3	4	5
16. Development of more restaurants ……	1	2	3	4	5

17. Are there any types of developments you might oppose or support?

_____

SECTION 8. QUESTIONS ABOUT YOU

This final section of the survey asks for information about you. The information you provide will be kept confidential and **WILL NOT** be identified with you personally.

1. What is your age? _____

2. What is your gender? ☐ Female ☐ Male

3. What best describes your family situation?

☐ Single ☐ Married ☐ Single parent with child(ren)

☐ Married with child(ren) ☐ Other: _____

4. What is the highest level of education you have completed?

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 +

Elementary High School College and After

5. What is your race/ethnicity (Please check ONE)?

☐ American Indian ☐ Asian ☐ Black or African American

☐ Caucasian or Anglo American ☐ Hispanic or Mexican American

☐ Other: _____

6. What is your total annual household income (from all members) before taxes?

☐ Less than $ 19,999 ☐ $ 40,000 to $ 49,999 ☐ $ 70,000 to $ 79,999

☐ $ 20,000 to $ 29,999 ☐ $ 50,000 to $ 59,999 ☐ $ 80,000 to $ 89,999

☐ $ 30,000 to $ 39,999 ☐ $ 60,000 to $ 69,999 ☐ $ 90,000 to $ 99,999

☐ $ 100,000 or more

COMMENTS

What are your concerns or suggestions for developing tourism in your community? Please use this space to add any comments you would like to share with us about your community or about tourism in your community.

Again, thank you very much for your contribution! We appreciate your assistance.

Please place this questionnaire in the postage-paid envelope and return it as soon as possible.

Número:

Turismo en la Región de Big Bend

Díganos su punto de vista

ESPAÑOL

Estimado(a) Residente, Texas A&M University y el "Visit Big Bend Tourism Council" están trabajando juntos para mejorar el entendimiento de turismo en Brewster County. Usted fue uno de solamente pocos que fueron seleccionados al azar para estar incluido en este estudio. Sus opiniones son muy importantes para asegurar que sus necesidades y preocupaciones están consideradas en el programa de planeación de turismo.

Todas sus respuestas serán tratadas en una manera confidencial. Si usted tiene cualquier pregunta o preocupación, por favor contacte:

Minsun Doh
mdohrpts@tamu.edu
979-845-5419

Dr. Scott Shafer
sshafer@tamu.edu
979-845-3837

2261 Dept. of Recreation, Park and Tourism Sciences
Texas A&M University

SECCIÓN 1. VIVIENDO EN BREWSTER COUNTY

1. ¿Usted vive en el área durante todo el año? ☐ SÍ ☐ NO

   *** SI SÍ,** ¿Cuantos años usted ha vivido en Brewster County? ____ años

   *** SI NO,** ¿cuantos meses del año vive usted en Brewster County? ____ meses

2. ¿Si usted ha mudado a esta área, que fue la razón primaria para mudar aquí?

_____

3. Por favor marque el lugar que usted considera su comunidad (Por favor elige UNO).

   ☐ El barrio dónde usted vive ☐ La ciudad/el pueblo dónde vive

   ☐ Brewster County ☐ West Texas (Texas de Oeste)

   ☐Otro:_____

4. ¿Usted es el/la dueño(a) de una(as) casas o propiedad(es) en Brewster County? ☐ SÍ ☐ NO

5. ¿Usted considera que su trabajo está relacionado con el turismo? ☐ SÍ ☐ NO

   *** SI SÍ,** que frase mejor describe su trabajo (Por favor marque UNO)?

   ☐ Turismo de la naturaleza (parques, senderos, etc.)

   ☐ Turismo histórico/cultural

   ☐ Instalaciones educativas (museos, centros de visita, etc.)

   ☐ Esparcimiento/recreo (rafting/flotar en barsa, cazador, etc.)

   ☐ Servicios para visitantes (restaurantes, alojamiento, etc.)

   ☐ Otro: _____

   *** SI NO,** ¿En qué industria usted trabaja? (Por favor indique la industria en vez de la compañía.)

   _____

6. ¿Qué son algunas de las actividades primarias de recreo que usted hace en su tiempo libre?

_____

SECCIÓN 2: SENTIMIENTOS SOBRE SU COMMUNIDAD

Por favor díganos que de acuerdo está con las declaraciones siguientes que pregunta a usted sobre sus sentimientos sobre la comunidad dónde usted vive. Por favor circula un número que mejor representa su opinión para cada frase. (1= Fuertemente en desacuerdo, 3= neutral, 5= Estoy muy de acuerdo).

	Fuertemente en desacuerdo		**Neutral**		**Estoy muy de acuerdo**
1. Estoy emocionalmente integrada con la comunidad--la comunidad es importante para mi ……..	1	2	3	4	5
2. Esta comunidad es muy especial para mí ……..	1	2	3	4	5
3. Tengo un vinculo emocional con esta comunidad—tiene razón de ser para mi ……...	1	2	3	4	5
4. Siento como yo soy una parte importante de mi comunidad……...	1	2	3	4	5
5. Si yo tuviera una oportunidad para mudarme de esta comunidad, yo me mudaría ……	1	2	3	4	5
6. Yo estoy interesado(a) en lo que está pasando en mi comunidad……...	1	2	3	4	5
7. Yo he formado buenas amistades en esta comunidad……	1	2	3	4	5
8. Lo que pasa en mi comunidad es importante para mi …...	1	2	3	4	5
9. Me da orgullo para vivir en esta comunidad..……	1	2	3	4	5
10. Yo estoy dispuesto(a) para invertir mi tiempo o talento para hacer mi comunidad un mejor lugar para vivir ……..	1	2	3	4	5
11. Esta comunidad es un lugar ideal para vivir……	1	2	3	4	5
12. Siento compromiso con esta comunidad …….	1	2	3	4	5

SECCIÓN 3. PARTICIPACIÓN EN EL DESARROLLO DE TURISMO

En esta sección, nosotros le preguntamos que de acuerdo está usted con las declaraciones sobre participación comunitaria. Por favor indique como se siente usted sobre las declaraciones siguientes al elegir el número mas apropiado para cada frase. Una definición simple de turismo para tener en cuenta cuando Usted responda es: "Cualquier actividad o lugar que atrae personas a la comunidad como visitantes" (1=Estoy muy de desacuerdo, 3=neutral, 5= estoy muy de acuerdo).

	Estoy muy de desacuerdo		**Neutral**		**Estoy de acuerdo**
1. Como un(a) residente, yo debo estar permitido(a) participar en el proceso local de decisiones ……..	1	2	3	4	5
2. Yo estoy interesado(a) en actividades de desarrollo de turismo local……	1	2	3	4	5
3. Yo deseo estar involucrado(a) en el proceso local turístico de toma de decisiones ……..	1	2	3	4	5
4. Yo puedo influir decisiones y políticas relacionadas con el desarrollo de turismo local ……	1	2	3	4	5
5. Me gustaría servir como miembro(a) en un comité involucrado en actividades locales de desarrollo turismo..	1	2	3	4	5
6. En los 12 meses pasados, yo he estado activo(a) participando en reuniones de la ciudad/públicas sobre el posible desarrollo local de turismo …….....	1	2	3	4	5

7. ¿Usted pertenece a algunos clubes, grupos, organizaciones, o asociaciones? ☐ SÍ ☐ NO

*** SI SÍ,** a) ¿En cuantos clubes, grupos, organizaciones o asociaciones usted está involucrado? ____

b) ¿Cuantos de ellos están relacionados a turismo? ____

c) ¿Cuantos de ellos están relacionados a la conservación ambiental? ____

d) ¿Cuantas horas le dedica usted a estos grupos? ____

*** ¿SI NO,** Qué es la razón principal por la cual usted no participa en clubes, grupos, organizaciones, o asociaciones? (Por favor señale UNO)

☐ Falta de información ☐ Falta de entusiasmo ☐ Falta de tiempo

☐ No existe interés ☐ Otro:_____

SECCIÓN 4. ORIENTACIONES DE VALOR CON RESPECTO A SERES HUMANOS Y LA NATURALEZA

Por favor indica que de acuerdo está usted con cada declaración con respeto a como ve usted su medio ambiente. Para cada declaración, por favor señale un número que mejor indica su opinión (1 = estoy muy de desacuerdo, 3 = neutral, 5 = estoy muy de acuerdo).

	Estoy muy de desacuerdo		**Neutral**		**Estoy muy de acuerdo**
1. Estamos abordando el límite del número de personas el mundo puede suportar…….....	1	2	3	4	5
2. Los seres humanos tienen el derecho para modificar el medio ambiente para servir sus necesidades…….	1	2	3	4	5
3. Cuando seres humanos entrometen con la naturaleza muchas veces produce consecuencias desastrosas…….....	1	2	3	4	5
4. El ingenio humano va a asegurar que nosotros NO hacemos el mundo inhospitable ……....	1	2	3	4	5
5. Los seres humanos están abusando el medio ambiente gravemente.....	1	2	3	4	5
6. El mundo tiene muchos recursos naturales si nosotros simplemente aprendemos como desarrollarlos.....	1	2	3	4	5
7. Las plantas y las animales tienen los mismos derechos para existir que los seres humanos tienen ……	1	2	3	4	5
8. El balance de naturaleza tiene suficiente fuerza para hacer frente a los impactos de las naciones modernas industriales	1	2	3	4	5
9. A pesar de nuestras habilidades especiales los seres humanos están sujetados a las leyes de la naturaleza……	1	2	3	4	5
10. Esta supuesta "crisis ecológica" confrontado la raza humana ha sido exagerada mucha.....	1	2	3	4	5
11. El mundo es como un omni con espacio y recursos muy limitados ……...	1	2	3	4	5
12. Los seres humanos fueron destinados para reinar el resto de la naturaleza……..	1	2	3	4	5
13. El balance de naturaleza es muy delicada y mal afectado fácilmente…….....	1	2	3	4	5
14. Los seres humanos aprenderán suficiente información finalmente como la naturaleza funciona para ser capaz para controlarla ……	1	2	3	4	5
15. Si los eventos continúan en su curso presente, nosotros vamos a experimentar un catástrofe ecológico grave….....	1	2	3	4	5

SECCIÓN 5. CONDICIONES IMPORTANTES PARA SU COMUNIDAD

En las columnas a la izquierda, por favor indica como usted siente como las cosas siguientes como existen ahora en Brewster County. En las columnas a la derecha, por favor indica como usted piensa las mismas cosas pueden cambiar (mejorar o empeore) si turismo adicional desarrolla en Brewster County.

Condición Presente:						**El Desarrollo de Turismo va a:**				
Grave		**Moderado**		**Excelente**		**Empeore**		**No Cambia**		**Mejorar**
1	2	3	4	5	La cantidad de tráfico en el área	1	2	3	4	5
1	2	3	4	5	La cantidad de ruido producido por humanos	1	2	3	4	5
1	2	3	4	5	La cantidad de estructuras hechas por humanos desarrolladas en este área	1	2	3	4	5
1	2	3	4	5	La cantidad de espacios naturales y abiertas	1	2	3	4	5
1	2	3	4	5	La calidad del medio ambiente	1	2	3	4	5
1	2	3	4	5	El Número de personas en el área	1	2	3	4	5
1	2	3	4	5	Acceso a transportación (aeropuerto, carreteras, ferrocarril, etc.)	1	2	3	4	5
1	2	3	4	5	La calidad de aire	1	2	3	4	5
1	2	3	4	5	La calidad del agua	1	2	3	4	5
1	2	3	4	5	Administración de basura	1	2	3	4	5
1	2	3	4	5	Diversidad de seres silvestres	1	2	3	4	5
1	2	3	4	5	Aspecto del área	1	2	3	4	5
1	2	3	4	5	Calidad de servicios públicos (policía, protección de fuego, etc.)	1	2	3	4	5
1	2	3	4	5	Calidad de servicios de salud y médicos	1	2	3	4	5
1	2	3	4	5	La paz y tranquilidad del área	1	2	3	4	5

SECTION 5. IMPORTANT CONDITIONS FOR YOUR COMMUNITY - CONT'D

Condición Presente:						**El Desarrollo de Turismo va a:**				
Grave		**Moderado**		**Excelente**		**Empeore**		**No Cambia**		**Mejorar**
1	2	3	4	5	La cantidad de basura	1	2	3	4	5
1	2	3	4	5	La cantidad de oportunidades educativas	1	2	3	4	5
1	2	3	4	5	La cantidad de oportunidades de entretenimiento	1	2	3	4	5
1	2	3	4	5	La cantidad de oportunidades de recreo	1	2	3	4	5
1	2	3	4	5	Conservación de recursos culturales	1	2	3	4	5
1	2	3	4	5	Ambiente del un pueblo pequeño	1	2	3	4	5
1	2	3	4	5	Espíritu de la comunidad entre residentes locales	1	2	3	4	5
1	2	3	4	5	Entendimiento de personas diferentes y culturas distintas	1	2	3	4	5
1	2	3	4	5	Seguridad personal	1	2	3	4	5
1	2	3	4	5	El rato de crímenes	1	2	3	4	5
1	2	3	4	5	La relación entre residentes y turistas	1	2	3	4	5
1	2	3	4	5	Sus ingresos personales	1	2	3	4	5
1	2	3	4	5	Oportunidades de empleo	1	2	3	4	5
1	2	3	4	5	Calidad de empleo	1	2	3	4	5
1	2	3	4	5	El dinero generado por negocios locales	1	2	3	4	5
1	2	3	4	5	El valor de propiedad (el costo de propiedad inmobiliaria)	1	2	3	4	5
1	2	3	4	5	El costo de vivir en el área	1	2	3	4	5
1	2	3	4	5	La calidad total de vida	1	2	3	4	5

¿Usted tiene otras ideas en que cambios pueden suceder debido al desarrollo de turismo en Brewster County?

_____

_____

SECCIÓN 6. SUS OPINIÓNES SOBRE EL DESARROLLO DE TURISMO

En esa sección, nos gustaría preguntarle para indicar si usted está a favor de o opuesto(a) al desarrollo de turismo en esta área. Por favor indica cuanto usted está de acuerdo o está de desacuerdo con cada declaración por circulando un número apropiado (1=estoy muy desacuerdo, 3=neutral, 5=estoy muy de acuerdo.)

	Estoy muy de desacuerdo		**Neutral**		**Estoy muy de acuerdo**
1. En general, los beneficios del desarrollo de turismo en mi comunidad son más importantes que los costos……..	1	2	3	4	5
2. En general, desarrollo nuevo de turismo debe estar fomentado en mi comunidad……...	1	2	3	4	5
3. Mi comunidad puede aceptar más desarrollo de turismo...	1	2	3	4	5
4. Aumentado turismo hacería daño a la calidad de vida de mi comunidad…….....	1	2	3	4	5
5. Turismo ser muy importante en el futuro del área de Big Bend ……....	1	2	3	4	5
6. Yo apoyo desarrollo turístico nuevo en mi comunidad….	1	2	3	4	5
7. Turismo aparece como la mejor manera para ayudar la economía de mi comunidad en el futuro ……	1	2	3	4	5
8. El desarrollo turístico en mi comunidad va a beneficiarme o un miembro de mi familia.....	1	2	3	4	5

SECCIÓN 7. TIPOS DE DESARROLLO PARA LA COMUNIDAD

Las preguntas siguientes tratan del futuro desarrollo de su comunidad. Por favor considera por circulando un número que mejor represente que deseable que punto es. (1=muy indeseable, 2=indeseable, 3=neutral, 4=deseable, 5=muy deseable)

	Muy indeseable		**Neutral**		**Muy deseable**
1. La prohibición de todo de desarrollo nuevo	1	2	3	4	5
2. Negocios de licencia exclusive……...	1	2	3	4	5
3. Negocios que atraen turistas a la comunidad……	1	2	3	4	5
4. Más negocios independientes pequeños (tiendas de regalos, librerías, etc.)…..……..	1	2	3	4	5
5. Más lugares para cazar seres silvestres…..	1	2	3	4	5
6. Negocios para buscar aves …….	1	2	3	4	5
7. Más lugares para campar ……	1	2	3	4	5
8. Senderos nuevos para caminar o salir en bicicleta ……	1	2	3	4	5
9. Sitios históricos……...	1	2	3	4	5
10. Ofreciendo facilidades que podía educar a los visitante sobre la naturaleza ……	1	2	3	4	5
11. Más campos de golf…….....	1	2	3	4	5
12. Más lugares de vacaciones……	1	2	3	4	5
13. Facilidades de parques de atracciones …..	1	2	3	4	5
14. Ser patrocinar para eventos como festivales, etc……...	1	2	3	4	5
15. Más hoteles……	1	2	3	4	5
16. Más restaurantes……	1	2	3	4	5

17. ¿Hay otros tipos de desarrollos que usted puede oponer o apoyar?

_____

SECCIÓN 8. PREGUNTAS SOBRE USTED

Esta sección final del cuestionario pide para información sobre usted. La información usted nos da será tratada en una manera confidencial y **NO** será identificado con su nombre.

1. ¿Cuántos años tiene usted? _____

2. ¿Qué es su sexo? ☐ Mujer ☐ Hombre

3. ¿Con qué tipo de familia viva usted? (Por favor marca UNO)?

☐ Soltero(a) ☐ Casado(a) ☐ Padre soltero(a) con niño(a)

☐ Casado(a) con niño(a) ☐ Otro(a): _____

4. ¿Hasta que nivel de educación usted ha completado?

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	+
Primaria								Colegio				Universidad y Después							

5. ¿Qué es su raza/minoría étnica (Por favor marque UNO)?

☐ Americano Nativo/Aluet ☐ Asiatico, Aluet, Pácifico Islander

☐ Negro ☐ Hispano o Mexicano-Americano

☐ Caucásico (blanco) ☐ Otro (Por favor especifique dónde):

6. ¿Qué es su ingreso anual de su hogar (de todos los miembros) antes de impuestas?

☐ Menos que $ 19,999 ☐ de $ 40,000 a $ 49,999 ☐ de $ 70,000 a $ 79,999

☐ de $ 20,000 a $ 29,999 ☐ de $ 50,000 a $ 59,999 ☐ de $ 80,000 a $ 89,999

☐ de $ 30,000 a $ 39,999 ☐ de $ 60,000 a $ 69,999 ☐ de $ 90,000 a $99,999

☐ $ 100,000 o más

COMENTARIOS

¿Qué son sus preocupaciones o sugerencias para desarrollar turismo en su comunidad? ¿Qué son algunos ejemplos de los impactos malos o buenos de turismo, y por qué? Por favor use este espacio para añadir comentarios que usted le gustaría compartir sobre su comunidad o sobre turismo en su comunidad.

¡Otra vez, muchas gracias para su participación! Le agradecemos mucho su participación.

Por favor ponga esta cuestionario en el sobre con franqueo y enviarlo lo mas pronto posible.

APPENDIX C

POST CARD REMINDER

February 6th, 2006

Dear Residents

You recently received a survey regarding how you feel about changes as they relate to tourism in the BB area. If you have already returned the questionnaire to us, please accept our sincere thanks. If not, please do so as soon as possible.

When you return your completed questionnaire, your name will be entered into drawing for ***four prizes of $25 value.*** Winners will be drawn as soon as the survey process is complete, and the prizes will be sent to you via US mail.

If by some chance the questionnaire was misplaced, please call me (Minsun Doh) at 979-845-5419 and I=ll mail another one to you right away.

Thank you very much for your assistance.

Sincerely,

Minsun Doh

2261 Dept. of Recreation, Parks and Tourism Sciences
Texas A&M University
College Station, TX 77483-2261

VITA

Minsun Doh

Address: Department of Recreation, Park and Tourism Administration, College of Education and Human Services, 400 Currens Hall, 1 University Circle, Macomb, IL 61455

Education:

M.S. 2002 Department of Recreation, Park, & Tourism Sciences, College of Agriculture & Life Science, Texas A&M University, College Station, TX.

B.S. 1998 Department of Geography Education, College of Education, Korea University, Seoul, Korea.

Work Experience:

2006-Present Assistant Professor, Department of Recreation, Park & Tourism Administration, Western Illinois University, Macomb, IL.

2000-2006 Research Assistant, Texas Cooperative Extension, Department of Recreation, Park, & Tourism Sciences, Texas A&M University, College Station, TX.

2003-2004 Associate Editor, "Texas Nature Net" the monthly e-newsletter on nature tourism in Texas.

1999-2000 Teaching Assistant, Department of Recreation, Park, & Tourism Sciences, Texas A&M University, College Station, TX.