The Lower Rio Grande Valley

Nature Tourism

Developing a Research Approach

By: Andy Skadberg

Geography 7305

Dr. Julie Tuason

May 6, 1999

1. Introduction

Initially the focus of this paper was to review literature about the history and culture of the Lower Rio Grande Valley (the Valley) in south Texas to create a backdrop for an analysis of nature tourism and its "place" in the Valley's development. A search for literature revealed a dearth. This paper will: 1) overview the historical material that was found, 2) provide an overview of the situation in the Valley, based primarily on a report from the U.S. Department of the Interior, U.S. Fish and Wildlife Service (USFWS), and 3) provide a literature review of how to develop a theoretical framework for nature tourism research in the Valley, with a focus on cultural and political ecology.

2. Literature about the Lower Rio Grande Valley

There are a number of books that have been written about the Valley (Pierce 1917; Buckner 1929; Scott 1937; Chatelle 1948; Gilpin 1949; Stambaugh and Stambaugh 1954; Williamson 1966; Sperry 1967; Valley By-liners 1978; Garza and Ockerman 1979; Maril 1989; Maril 1992; Montgomery undated,). Most of these works provide a "comprehensive" historical view of the Valley while they highlight a certain aspect of the area. The older works appear to be designed as "booster" pieces that were written to attract people to the Valley (Chatelle 1948; Gilpin 1949; Valley By-liners 1978; Montgomery undated,). Other more recent works provide a more "objective" perspective and investigate some of the serious concerns of the Valley such as the economic or cultural situation. As for published articles I found only one pertinant to this topic and that referred to the Valley.

I was searching for any references to wildlife, birds, tourism, nature, the ecological situation in the Valley. In addition, and more importantly, I was looking for references to the socio-economic and political situation and peoples' attitudes towards these topics within a historical perspective so I could gain an understanding of the development of nature tourism in the Valley. What I found in the literature were several references to the Valley's natural setting, however, there was very little more than a short statement. Stambaugh (1954) provides one of the more extensive discussions of tourism in the Valley. The following is an excerpt from this text:

In addition to its semi-tropical winter climate, the Valley offers numerous attractions for tourists. Among these are the many beautiful winter-blooming flowers, towering palms, cactus gardens, bird farms, beautiful citrus groves, unusual trees, shrubs and plants, and miles of canals and resacas.

Stambaugh (1954) also mentions the areas nature reserves.

The parks of the Valley are mostly in their natural state. In 1942 the Texas Legislature bought 2,000 acres of land on the river south of Alamo for a wild life refuge. A place of natural beauty, with large trees covered with Spanish moss, it serves as a sanctuary for 163 species of birds as well as other forms of wildlife.

The most extensive reference to birds is found in Montgomery's promotional piece (undated).

The Valley's bird life and native trees and flora deserve a full measure of treatment in any Valley story. There should be a large consideration to any Nature lover, especially where children are concerned, in choosing a place to live. There are scores of varieties of birds, and the beautiful native trees are full of them....There are five important bird reservations on the lower Texas coast, four of them adjacent to the Valley, in the Laguna Madre, and one nearer to Corpus Christi.

The Texas Legislature has given complete jurisdiction and supervision of these reservations to the National Association of Audubon Societies for a period of fifty years. The Audubon Societies comprise the largest conservation organization in the world.

Although the date that this piece was published is not included, it is apparent from the text that it was produced around 1927 or 1928. This quote prompted me to look for references to the Audubon in the literature. Again I found insufficient material.

The wildlife diversity in the Valley is well known. There is an abundance of plants and animals in the area that make it a prime candidate for the development of nature tourism. In fact, nature tourism is becoming an important component of the promotional efforts of Chambers of Commerce in the area. A number of festivals are held in the Valley for wildlife, especially for birds and butterflies. The importance of protecting the wildlife diversity is highlighted by the efforts of U.S. Fish and Wildlife Service (USFWS) in the development of the LRGV Wildlife Refuge. This refuge is being established by the USFWS purchasing or establishing easements to create a 132,000 acre preserve. This program is described in the Interim Comprehensive Management Plan (ICMP). In addition, Texas Parks and Wildlife Department (TPWD) is establishing a presence for the promotion of wildlife habitat protection. The Great Texas Coastal Birding Trail will be completed in this area in the fall of this year. The Valley is one area where the Great Texas Birding Classic (a birdwatching tournament) is held annually. These activities have culminated in the most recent efforts to establish the World Birding Center in the Valley (Eubanks 1998).

Ultimately my hope was to find some literature that might discuss the issues of culture, economy, politics or people's attitudes towards nature. Specifically, I was interested in Mexicans attitudes towards nature because they are the majority in the

Valley. In my searches, I did not find any research on the topic. Secondarily, my hope was to find some literature that might create a picture of the culture of the area and then generalize people's attitudes towards wildlife that would then provide me an understanding of how nature tourism might be accepted by this group. The only reference in these "historical" books was in a book of photographs by Gilpin (1954). A caption to a photograph of a Mexican lady on her porch with some houseplants and a bird in a cage read "In almost every home in Mexico, one finds flowers and singing birds, for all Mexicans seem blessed with the green thumb and all love their feathered songsters." After I found this to be the only referral to Mexican peoples' attitude towards birds, I decided to redirect my research.

Ted Eubanks (1998) suggested that the LRGV is much like a third-world country in regards to the socio-economic and environmental situation. He also suggested that current census data for ethnicity and poverty in the LRGV correlates well with the original border between Mexico and the U.S. Census data reveals that, for the four counties included in the Valley, incomes for households are significantly lower than the national average. Several serious questions arise as I have looked into this situation in the Valley.

- a) How do these efforts at nature tourism appeal to local people? Isn't the success of nature tourism dependent on the support and participation of the local people?
- b) Can nature tourism benefit the Mexican majority and the economically disadvantaged in the area? Have efforts been focused to consider the benefits to all groups represented in the Valley? If so how?

c) Is there a way to study the situation and gain insights into the most beneficial development of nature tourism?

3. The Study Area

According to the USFWS:

The LRGV is located where two American migratory bird flyways meet. As a result, considerations for ecological management could be framed around the needs of migratory birds. Present trends suggest that the remaining LRGV brushland in private ownership will be developed (destroyed as wildlife habitat) within five years. Some 90 percent has already been lost. (USDOI 1984).

It is beyond the scope of this paper to conduct a thorough overview of the political, environmental or social aspects that exist in the Valley. The ICMP (USFWS 1997) provides a brief, but current overview of the socio-economic character of the Valley. It identifies three areas

Population Growth: The LRGV is one of the fastest growing areas in the United States, with a population on both sides of the border approximately two million people. Between the years 1975 and 1995 the Cameron, Hidalgo and Willacy counties will grow an average of 29.4 percent. Populations in Cameron County have grown to surpass the projected 240,000 for 1995. The total Valley tourist population has surpassed the 1995 projected 150,000. This growth is equaled by bordering cities in Mexico whose combined growth with that of the U.S. in the LRGV is projected to grow to 4.3 million by the year 2020.

Income Trends: Growth in LRGVs can be linked to the development of the maquiladora industry in Mexico, and is expected to double between 1990 and 2010. Yet, close to half of the population is on the U.S. side has an annual income below the poverty level. The LRGV is considered to be one of the most impoverished regions in the United States.

Economic Development Pressures: According to 1983 figures, economic development with the ecosystem can be divided into five segments: 1) Trade 2) Manufacturing 3) Agriculture 4) Oil and Gas

Production, and 5) Tourism. Tourism contributes \$500 million per year to the total economy (Rio Grande Valley Chamber of Commerce 1992)

Trade with Mexico increased 250% since 1983 and is projected to increase 400% by the year 2020 (USFWS 1997).

The LRGV is not actually a "valley", but the gently sloping delta of the Rio Grande River. The area supports an abundance of neotropical migratory songbirds, mammals, snakes, lizards and salamanders and contains many rare and unique plant and animal species, many of which reach the northernmost limits of their distribution in the LRGV. Approximately 18 Federally listed threatened and endangered species are found in the LRGV. Several other plant species are being proposed for listing as endangered species (USFWS 1997).

It is estimated that, since the 1920's, approximately 95% of the original native brush land has been cleared or altered for agriculture or urban development. Also, it is estimated that 99% of the riparian vegetation on the U.S. side of the Rio Grande has been cleared (USFWS 1997). Falcon Dam, Retamal Dam, and Anzalduas Dam that were constructed for flood control, irrigation, and municipal uses have eliminated regular periodic flooding of the delta woodland and wetlands which has further aided clearing of native brush for agriculture. Development pressures are also major contributors to the loss of native brushland and wetland degradation and elimination. Population and development pressures will likely continue as the population in the LRGV continues to expand and the passing of the North American Free Trade Agreement (NAFTA) (USFWS 1997).

The ICMP recognizes four "pressures" that provide the impetus to "coordinate major natural resource decisions." These include:

1) the refuge consists of many separate tracts of land dispersed throughout a four county area, 2) other agencies and entities of management are involved in land and natural resource management in the same area, 3) the multitude of management needs arising as additional lands are acquired, and 4) the increasing urban, international, and economic development. This results in an ecosystem management approach rather than decision-making that would benefit only one particular resource over another. Planning provides a road map to facilitat the kind of coordination that is necessary to enhance the efficiency of implementing management actions designed to benefit the LGV NWR, Santa Ana NWR, and the Area of Ecological Concern. (USFWS 1997, 12).

4. Literature review and discussion of cultural and political approaches to conduct research on the Valley

This literature review spans a number of topic including a) tourism, b) nature tourism c) resource management, d) social driving forces, e) perceptions and attitudes, f) governmental policies, roles of institutions, and g) theoretical frameworks from human ecology, cultural ecology, ecological anthropology, and political ecology.

4.1 Studies on tourism and nature tourism

France (1997) defines nature tourism as one form of alternative tourism, which is "an aspect of adventure tourism where the focus is upon the study, and/or observation of flora, fauna and/or landscape. It tends towards the small-scale, but it can become mass or incipient mass tourism in many national parks." According to Hunter (1996), this form of tourism is generally small in scale, developed by local people and typically involves travelling to undisturbed natural areas with the objective

of studying and enjoying the scenery, its wild plants and animals, and cultural features.

There are a number of models aiming to explain the way in which tourism develops in a region or destination area. MacCannell (1976; 1989) proposes a five-stage model from a semiotic perspective. These stages include naming, framing and elevation, enshrinement, mechanical reproduction and social reproduction.

Butler (1980) provides a debatable model of evolution of a tourism destination area over time. His model recognizes several stages of evolutionary development: exploration, involvement, development, consolidation, stagnation, and decline. The significance of this model is that it addresses the idea of environmental limits. Although there is a lack of empirical testing of Butler's model, it has received much attention in the tourism literature, especially by those concerned with the environment and development. However, this model only addresses issues after tourism has been introduced into a destination area or a region. Research is needed on the causes of introducing tourism and the development process.

Nature tourism is the fastest-growing segment of the world travel markets (Robinson 1997). It has become a "buzzword" within the areas of tourism, conservation, and rural development" (Lindberg et al. 1996). Research on nature tourism has started to appear more recently in the literature, although it is still fragmented. Most studies ignore the internal and external forces underlying the development of nature tourism, although there have been some attempts. McCannell (1976; 1989) explains tourism through an analysis of modern social structure. He believes that tourism is developing the capacity to organize both positive and negative

social sentiments. Thus, tourist attraction is "an unplanned topology of structure that provides directory access to the modern consciousness or 'world view', that tourist attractions are precisely analogous to the religious symbolism of primitive peoples". Hunter (1996) suggests that the key driving force behind the establishment of alternative tourism (including nature tourism) is the "perceived need for new tourism marketing strategies promoted by the changing needs and desires of many tourists themselves".

There are polarized views concerning the role of tourism in development. The tourism research community tends the view mass tourism as causing serious environmental and sociopolitical problems, while the idea that tourism generates benefits is generally agreed upon (Hunter and Green 1996; Khan 1997; Lindberg and Johnson 1996; Dieke, P. U. C. 1993; Hohl and Tisdell 1995; Mathieson and Wall 1989).

There are controversial views regarding the impact of nature tourism. In the sustainable development community, nature tourism is regarded as being able to achieve three objectives: a) generation of financial support for protected area management, b) generation of local economic benefits, and c) generation of local support for conservation (Buckley 1994). These claims are based on intuitive assumptions. Detailed substantial investigation at the local level is still scant. A case study conducted by Lindberg et al. (1996) in Belize concluded that nature tourism does not achieve the first objective. And yet, it does achieve the second and third.

4.2 Resource management

Nature tourism is not just about economic development, it is also about resource conservation and management. O'Riordan (1989) groups theories on resource management into three categories: neoclassic-economic, human ecology, and political economic including political ecology. Neoclassical resource economics purports that in order to internalize the values of resources and environmental costs, either private property rights must capture the full costs and benefits of production, or a non-market institution must intervene to assign limits and liabilities (Hawken 1993). Human ecology/cultural ecology "emphasizes the interactive and adaptive character of the human-nature interaction and its mediation by social institutions" (Emel 1993). Kates (1993) and Brookfield (1964) stress the importance of perceptions, attitudes, and values in motivating behavior. Although they fail to address the importance of political-economic causes, their approach does broaden the investigation of causes of resource management behavior. On the contrary, political ecology views resource management problems in the context of the socio-political and economic settings.

4.3 The study of human driving forces

The study of human driving forces has been addressed in research on environmental change (Turner et al. 1990; Goudie 1982). Yet, it has not received much attention in the tourism research community. Underlying human activities are human driving forces, including attitudes/beliefs, economics, resource institutions and political structures. These forces are those that induce behaviors. While it is necessary to identify what role each driving force plays in the development of nature tourism,

Brookfield (1964) points out that it is important to study the "how" and "why" in nature-society relationships, instead of merely the "what". It is in the understanding of the "how" and "why" of nature-society relationships that the explanatory power of geography dwells.

Past research in tourism has emphasized on the impacts of tourism on the economy, the environment, and the society (Mathieson and Wall 1982). In an effort to improve the planning of tourism development and to reduce the perceived negative social and environmental impacts on host communities, great attention has been given to improve the planning process (Gunn 1994; Reed 1997). However, the questions of "how" and "why" nature tourism is developed, and its impacts on people's attitudes towards natural resources have been neglected. Nature tourism cannot be fully understood without an in-depth study of the human decisions and behaviors and driving forces underlying nature tourism at the regional level.

4.4 Human behavior, cultural ecology and political ecology approaches

The study of tourism is conducted within diverse disciplines. Jafari and Aaser (1988) identified 15 main disciplines in tourism research such as economics, sociology, psychology, geography, and anthropology to name a few. There is considerable discussion in the literature concerning the methodological issues and approaches to tourism studies (Smith 1989; Echtner and Jamal 1997; Buck 1978; Hall 1994; Hall and Jenkins 1995; MacCannell 1976). This discussion reveals that there is a lack of a theoretical framework for tourism research. Echtner and Jamal (1997) suggest that tourism research should overcome disciplinary barriers and adopt diverse

methodologies and philosophical approaches. However much research is conducted within specific disciplinary boundaries (Echtner and Jamal 1997).

It is important to understand the social context within which tourism occurs (Hall 1994). There is research on community tourism. Several models for community-based tourism planning have been developed (Murphy 1985; Baker 1990; Gunn 1994; Feehan 1994). However, "the theoretical underpinnings of such efforts remains weakly developed" (Reed 1997). Nature tourism is an adaptive strategy of human culture and attention should be focused on the forces that generate this strategy, that is, to interpret this behavior couched within social and cultural settings at the regional level.

Nature tourism is a complex strategic behavior. The close interdependencies between the natural environment, local communities, governmental institutions and organizations cooperating for nature tourism, suggest the need of taking various socioeconomic and cultural factors into consideration. Cultural and political ecology are two interdisciplinary approaches that have been used for analyzing human-environmental interactions, especially associated with economic development in less developed regions (Butzer 1989; Blaikie 1985; Blaikie and Brookfield 1987; Bryant, R. L. 1992; Stonich 1998; Porter 1965).

4.4.1 Cultural ecology, environment and society, institutions, community and individuals

4.4.1.1 Cultural ecology

Cultural ecology has its roots in both geography and anthropology (Butzer 1989). It has been used with increasing frequency to explain human behavior (Hardesty 1986; Turner 1989). As defined by Steward (1955), cultural ecology studies the adaptive process, and nature and culture are interlinked by cultural adaptation. Some research stresses the adaptive responses of collective behavior (Butzer 1980). Others believe that cultural adaptation should be viewed as a decision-making process and thus should place an emphasis on individuals (Dyson-Hudson and Little 1983). Hardesty (1986) proposes a co-evolutionary model of cultural adaptation to solve the question of the linkages between individual and collective behavior.

According to Bennett (1976), the behavior of a society towards natural resources is determined "as much or more" by the social forces beyond their control than by its internal concepts and needs. He defines cultural ecology as "a study of how and why humans use Nature, how they incorporate Nature into Society, and what they do to themselves, Nature, and Society in the process" (Bennett 1976:3).

There are two extremes in the study of human behavior. Some emphasize internal goals and norms and ignore external environmental factors. In the other perspective, environmental factors are viewed as the ultimate cause of behavior (Jochim 1981). Both approaches are incomplete. A complete view would include both sets of factors as independent variables. Another deficiency in the literature is

that most studies only address the effects of actions rather than the process of making the decisions (Jochim 1981). Jochim (1981) argues for linking the process of decision-making to its specific context and then examine the relationship between behavior and its environmental conditions.

There is a lack of research that adapts the concept of cultural ecology in nature tourism. Adaptive theory should provide a solid theoretical foundation to analyze the relationship between the decision-making process of nature tourism at the regional level, and its social context. According to Sahlins (Bennett 1976: 246), "adaptation implies maximizing the social life chances. But maximization is almost always a compromise, a vector in the internal structure of culture and the external pressure of environment. Every culture carries the penalties of a past within the frame of which, barring total disorganization, it must work out the future."

4.4.1.2 Environment and society

Waddell (1972) identified three levels in which a small society operates: 1) biological resources and environmental constraints, 2) adaptive strategies for maximizing productivity and minimizing risk, and 3) manipulation of key actors. This paper utilizes this concept and considers socioeconomic conditions as part of the environment to analyze these three dimensions for the development of nature tourism in a region.

There are two opposite views concerning the relationship of humans to the environment. One extreme position is environmental determinism. Environmental determinism holds that the natural environment directly determines the nature and

complexity of culture. At the opposite end of the spectrum is the position that humans possess culture that sets them apart from their environment. This view is egocentric. Both views are incomplete since both cultural and natural phenomena interact and affect one another (Jochim 1981:6). The middle position holds the view that culture and the natural environment interact and affect one another. Of these viewpoints, environmental possibilism views the natural environment as setting limits and possibilities on cultural behavior and institutions (Jochim 1981:6). Steward (1955) improved this middle approach. He views the environment as intimately related to aspects of culture and investigates how specific resources are obtained, and what the effects of these activities are. Steward (1955) states that some aspects of culture are more directly related to the environment than are others. According to his view, economic activities are most directly related to the environment.

When investigating any aspect of a society, the complexity of relationships has to be considered. Jochim (1981) points out that one of the misconceptions about ecological studies of human behavior is that the "environment" is restricted to physical and biological factors. However, "an individual's decisions must take into account not only his natural setting but also his family, co-workers and rivals, and the social, economic, and political institutions that define his opportunities and constraints" (Jochim 1981:8). This paper argues that both the natural environment and socioeconomic settings are the environment in which to analyze the behavior of promoting nature tourism in a region.

4.4.1.3 Institutions, communities and individuals

According to O'Riordan (1989) one contribution from geographers in resource management studies is their emphasis on both market and non-market institutions, the actual context of decision-making and policy implication. Institutions establish policy for resource allocation that may act as an important force for introducing a new strategy. Literature on resource institutions has considered the roles of private and (especially) common resource institutions in environmental degradation (Hardin 1968). While one view argues that common resource institutions have brought about resource exploitation (Hardin 1968), another maintains that common property regimes can play a protective role in resource management (Wadde 1987; Jodha 1985; Jodha 1992). More recently, the debate has focused on the rule systems of resource institutions and their economic outcomes as crucial in assessing their effects on human behavior (Livingston 1986; Ostrom 1990). The debate stimulates an investigation into the roles of particular resource management institutions and their policies.

Adaptation is both a form of individual behavior and a process within social groups (Bennett 1976). Bennett defines adaptation as "the patterns and rules of social adjustment and change in behavior by individuals and groups in the course of realizing goals or simply maintaining the *status quo*" (Bennett 1976:269). Adaptation can be a means to satisfy both an individual's needs and a community's welfare and survival. Jochim (1981) and Durham (1976) argue that the study of adaptation behavior should not neglect the behavior of individuals. Rutz (1977) expresses similar concerns. He states (Rutz 1977:157) that, "how to relate the unintended consequences

of conscious decisions based on the specific ends of competing management units to the patterned outcome and some goals posited for a whole system remains an ill-defined but crucial problem". It cannot be assumed that a group is simply a collective individual (Jochim 1981). Individuals differ in their socioeconomic condition, ability to perceive problems, and also in their preference for ends. Therefore, understanding group behavior must come from the in-depth study of the individual members (Jochim 1981). Consequently, an examination of individual communities and landowner's motives, attitudes, goals and behaviors will assist our understanding of commonalties and differences at the regional level.

4.4.1.4 Perceptions, values and attitudes

The concept of adaptation and fitness is a theoretical basis for ecological study. However, human behavior is not simply a solution to a problem. Human adaptation is more than biological fitness. Jochim (1981) suggests that a particular activity can be viewed as "one step toward the realization of an ultimate goal". Thus, human adaptation involves particular solutions to achieve certain goals. These goals are established based on the perception of problems and the culture's value systems. Problems may change when the environment changes, either naturally, socioeconomically, or politically. Perceptions and goals may also change through communication and education that influence people's value systems. Values are a set of beliefs and ideas that inform our assessments of worthiness (Lee 1994). They are "ends, goals, interests, beliefs, ethics, biases, attitudes, traditions, morals and objectives that change with human perception and with time" (Henning 1974:15).

Thus, examination of the evolution of perceptions and values of the community and individuals before and after the introduction of nature tourism is not only critical to understanding their behavior, the change can also be used as an indirect indicator to assess the impact of nature tourism.

Human ecology provides a basis for the study of human perception and behavior. Both are important for the study of societal responses. Brookfield (1964) argues for the study of values, beliefs, and social organization. He (1969) proposes that perception studies can help to understand the role of new information, decision-making and resource utilization in a traditional society. White and colleagues (White 1961; Burton, Kates and White 1993), and other researchers (Slovic 1987; Whyte 1990) have provided a solid foundation for the study of perception.

In geography, environmental perception is frequently used to refer to the linkage of behavior, environment and design (Saarinen and Sell, 1980), although the drawbacks are that most studies are associated with extreme events (Winterhalder 1980). Some research emphasizes the role of hazards. Burton and Hewitt (1974) suggest that the properties of the hazards must be analyzed in the study of human adaptation. However, low-level, and long-term stresses can be more important in shaping adaptive responses.

In the study of nature tourism, a critical element is people's perceptions of environmental resources. There are numerous articles concerning perceptions of the environment. The findings and methodologies of these studies provide a solid foundation for study of peoples' perceptions of nature tourism and responses from the local community.

More recently, there are a growing number of publications in the tourism literature on resident's perceptions of tourism impacts on a community (Getz 1994; Madrigal 1995; Lindberg and Johnson 1997). The study of perception of resources is important in analyzing a society's responsive behavior, as is the case with nature tourism. Because we view behavior as problem solving, then the examination of the "insider's view", his perceived environment, and his attitudes towards resources is crucial to understanding the current decisions and forecasting future actions.

Research in the Valley should address the relationship of environmental awareness, economic vulnerability (hazard) and the adoption of nature tourism as a mitigation measure. Jochim (1981: 19) noted that the major factors that hinder human adaptive process should be seen in the context of: 1) the difficulties of perceiving problems adequately; 2) the inability of foreseeing all the implications of solutions; 3) the competing demands of simultaneously solving several problems; and 4) the possible inflexibility of learning and behavior in response to changing problems.

Value systems have been excluded from investigations of decisions (Rutz 1977; Jochim 1981). However, decisions are made to attain preferred goals. These preferences are influenced by the value systems of the individuals and the community. To understand the choice made by individuals and communities, we have to examine the available and perceived options, and the desired ends according to their value systems. Individuals and communities may have to make multiple choices and each may be guided by a "different set of preferences". The actual behavior may actually be the result of a compromise (Jochim 1981). Therefore, research in the Valley should

examine preferences at the individual, community, and institutional level to understand the role of value systems influencing decisions concerning nature tourism.

4.4.2 Political ecology, policies, tourism and community development

4.4.2.1 Political ecology

Political ecology is concerned with theorizing environmental degradation at the intersection of the local or global level. It focuses on the notion of political, economic and ecological marginality, where environmental degradation is the outcome of rational survival strategies by local people responding to changes in the natural and political economic context (Blakie and Brookfield 1987; Pickles and Watts 1991). The analytical power of political ecology has been recognized in the literature (Watts 1997; Westcoat 1991). Efforts to promote bird watching in the Valley, is a survival strategy by the local communities, with the support of the governmental agencies, as a response to the changing socio-economic conditions and cultural values.

Emel and Peet (1989) feature Blaikie's (1985) political economic approach as it was used to describe the dynamics of soil erosion in developing countries. Emel and Peet (1989; 60) describe this theoretical approach as a combination of "two systems, the physical and the socio-economic in integration." Blakie (1985) argues for the necessity to do more than consider one aspect (e.g. social, economic) of an area when making a resource assessment. This approach argues that a comprehensive perspective is needed, that is, to place what one is trying to assess in a socio-political,

geographical and historical context. Blakie's (1985) emphasis is on the social element to assess why certain land uses take place in terms of the political-economic context in which land users find themselves.

Blaikie and Brookfield (1987) expand on this theory in *Land Degradation* and *Society*. They (1987) suggest that a theory to address land degradation must be able to explain the "local conjecture of physical and social processes as well as provide a clearly understood basis for generalization about processes worldwide"(p. xx).

Like land degradation, nature tourism is by nature interdisciplinary. Thus, there is a need to develop a comprehensive theory in which analytical tools of both the natural and social sciences are combined. Such a comprehensive approach will more effectively address a central question of "why are people adopting nature tourism as a coping strategy"?

Apparently, Blaikie's approach has received significant recognition as a valid geographical approach. Westcoat (1991: 76) recognized Blaikie and Brookfield's approach as fusing ecological and political-economic approaches. However, Watts (1997) criticizes Blaikie's books as having an "impoverished and non-dynamic sense of politics and the way in which power is exercised." Watts (1997) provides a fairly blunt review of the political weaknesses of Blaikie's book. Nonetheless, in the end, he praises the "stunning effect" in which Blaikie employed the political economy approach. This same theory might be applied to other contexts and regions (Westcoat 1991), such as with the case of nature tourism in the Valley.

Some tourism literature has started to use political ecology as a theoretical basis. Specifically they emphasize how power is delegated. Jamal and Getz (1995), and Selin and Beason (1991) adopt organizational and management theories to a tourism context. Reed (1997) identifies three policy arenas to examine how power relations affect community-based tourism planning. These arenas include developmental, allocation, and organizational policy. However, these and other similar efforts (Pearce 1998) fail to consider the underlying driving forces for communities' adopting nature tourism. As stated by Reed (1997), "the diversity of conditions and processes at the local level limits the attempt to develop theoretical explanations".

Furze, De Lacy, and Birckhead (1996) provide a framework for linking the complexities of local level development to the global economic, ecological, cultural and political framework with the use of social science concepts and ethics.

As Grossman (1993) suggests, a political-ecological approach should highlight not only the impact of political-economic relationships on resource-use patterns, but also the significance of environmental conditions and how their interaction with political-economic forces influence the use of resources. Thus, the local environmental conditions as they affect the resource-use patterns are seen as a critical condition for the development of nature tourism.

4.4.2.2 Governmental Policies

The institutions of the state provide the framework within which economies including tourism operates. The study of the role of governmental policies on nature

tourism is scant. The implications of policies have been rarely understood, although research has started to address this situation (Hall and Jenkins 1995). However, most studies are about what government should do (Dieke 1993), or the political dimensions of these policies (Hall and Jenkins 1995), rather than what happened and what are the implications to nature tourism. Policy is viewed as a social process that involves and affects society. Policy analysis can contribute to an understanding of policy as a driving force and as a social response to changes in the environment and social values.

However, most studies on nature tourism have ignored political policy dimensions (Richter 1989). As a result, factors that contribute to the success or the failure of nature tourism have not been adequately evaluated. In reality, there are often political agendas and development policies beyond the local community that affect tourism development. Mill and Morrison (1985) suggest that government can stimulate tourism in three ways: 1) financial incentives, 2) sponsoring research for the benefit of tourism development, 3) marketing and promotion to establish a distinct identity and image. Besides the above factors, other development and conservation policies can also indirectly, however dramatically, encourage or discourage nature tourism.

There are two kinds of policies that need to be analyzed: socioeconomic policies, which form the context of nature tourism, and resource protection policies that are directly related to environmental protection. The traditional concept of tourism development is related to economic development. Thus, studies on governmental tourism policies promoting tourism, and their effects, have been the

focus of policy studies (Hall and Jenkins 1995). However, the role of environmental policies and their effect on tourism development has not received much attention.

5. Conclusion

Cultural and political ecology studies the reciprocal relationships of people and the environment (Buzter 1989; Blaikie and Brookfield 1987). Cultural ecology studies this relationship from human activities, behavior, and adaptation but avoids broader sociopolitical conditions. It focuses on how people live within environmental and social constraints. It recognizes that human behavior has cognitive dimensions (Buzter 1989). Political ecology, on the contrary, emphasizes social structures and political institutions, the condition in which human activities operate. Cultural ecologists have traditionally emphasized human adaptation, including proximate activities and driving forces immediate to the region; and political ecologists have stressed the role of social structures and political institutions, and power (Blaikie 1989; Lee 1993; Hall 1994; Hall and Jenkins 1995; Stonich 1998) that is a driving force both within and beyond the region. Thus, cultural and political ecology can both help to analyze social and economic factors of nature tourism in a regional context.

A major problem with implementing a political ecology approach in the Valley is the highly complex sets of issues that exist. One way to deal with the problem of complexity would be to generalize the major components and simplify the political, economic, social, and ecological concerns to conduct the analysis (Kimmel 1998)(see figure 1 for a "working" schematic).

An effective strategy for nature tourism research depends upon establishing a solid theoretical framework. This framework will lead to a model to conduct research in a systematic fashion. These efforts are necessary because nature tourism is rapidly growing. An effective way of analyzing and evaluating it is imperative in order to accomplish the goals of economic development and conservation.

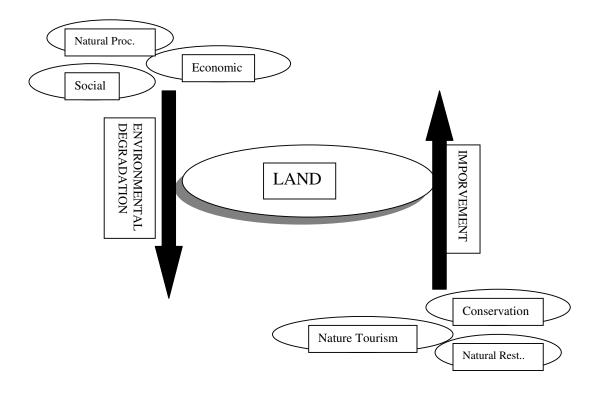


Figure 1. Diagram depicting a modified version of Blaikie and Brookfields

(1987: 7) Degradation equation

[net degradation = (natural degrading processes + human interference) – (natural reproduction + restorative management)]

Bibliography

- Baker, I. 1990. The Objective Tree in Tourism Planning. *Journal of Travel Research*. 28(4): 33-36.
- Bennett, J. W. 1976. *The Ecological Transition: Cultural Anthropology and Human Adaptation*. New York: Pergamon Press.
- Blaikie, P. 1985. The Political Economy of Soil Erosion in Developing Countries.

 New London: Longman.
- Blaikie, P. and H. Brookfield. 1987. *Land degradation and Society*. London: Methuen & Co.
- Brookfield, H. C. 1964. Questions on the human frontiers of geography. *Economic Geography* 40: 283-303.
- Brookfield, H. C. 1969. On the environment as perceived. *Progress in Human Geography* 1: 51-80.
- Buck, R. C. 1978. Towards a Synthesis in Tourism Theory. *Annals of Tourism Research* 5: 110-111.
- Buckley, R. 1994. Research Note: A framework for Ecotourism. *Annals of Tourism Research* 21(3):611-669.
- Buckner, D. U. 1929. *Study of the Lower Rio Grande Valley as a Culture Area*.

 Unpublished Thesis. Pharr, Texas: University of Texas.
- Butler, R. W. 1980. The Concept of a tourist-area cycle of evolution and implications for management. *The Canadian Geographer* 24: 5-12.
- Burton, I. and Hetwitt, K. 1974. Ecological dimensions of environmental hazards. In Saegent, F., ed. *Human Ecology*, 253-283. North-Holland: Amsterdam.

- Burton, I., R. W. Kates, and G. F. White. 1993. *The Environment and Hazard*. New York: Oxford University Press.
- Butzer, K. 1980. Civilizations: Organisms of Systems? *American Scientist* 68: 517-523.
- Butzer, K. W. 1989. Cultural ecology. In G. L. Gaile and C. J. Willmott, eds. Geography in America. Columbus: Merrill Publishing Company.
- Chatelle, Miriam. 1948. For We Love Our Valley Home. . San Antonio, Texas:

 The Naylor Company
- Dieke, P. U. C. 1993. Tourism and Development Policy in the Gambia. *Annals of Tourism Research* 20: 423-449.
- Dyson-Hudson, R. and M. Little. 1983. eds. Rethinking Human Adaptation. Boulder, CO: Westview Press.
- Durham, W. H. 1976. The adaptive significance of cultural behavior. *Human Ecology* 4: 89-121.
- Echtner, C. M. and T. B. Jamal. 1997. The Disciplinary Dilemma of Tourism Studies. *Annals of Tourism Research*, 24(4): 868-883.
- Emel, J. 1994. Human ecology. In R. J. Johnston, D. Gregory and D. M. Smith eds.
 The Dictionary of Human Geography. 3rd edition. Oxford, UK: Blackwell Publishers.
- Eubanks, T. 1998 Personal communication on Nov. 6 at Southwest Texas State University.

- Feehan, J. 1994. Tourism, Environment and Community Development. In U. Kockel ed. *Culture, Tourism and Development: The Case of Ireland.* Liverpool, UK: Liverpool University Press.
- France, L. ed. 1997. *The Earthscan Reader in Sustainable Tourism*. London: Earthscan Publications.
- Garza, E. D. and J. Ockerman. 1979. Adolescent Mexican American Student Attitudes of Self-Concept, Locus of Control and Family Ideology in the Lower Rio Grande Valley of Texas. R. & E. Research Associates, Inc. Palo Alto, California.
- Getz, D. 1994. Residents' Attitudes towards Tourism: A Longitudinal Study in Spey Valley, Scotland. *Tourism Management* 15(4): 247-258.
- Goudie, A. 1982. The Human Impact. Cambridge, Massachusetts: The MIT Press.
- Grossman, L. S. 1993. The political ecology of banana exports and local food production in St. Vincent, Eastern Caribbean. *Annals of the Association of American Geographers* 83(2): 347-67.
- Gunn, C. 1994. Tourism Planning: Basics, Concepts, Cases. 3rd edition. WashingtonDC: Taylor & Francis.
- Hall, C. M. 1994. Tourism and Politics: Policy, Power and Place. Chichester, England: John Willey & Sons.
- Hall, C. M. and J. M. Jenkins. 1995. Tourism and Public Policy. London: Routledge.
- Hardin, G. 1968. The tragedy of the commons. *Science* Dec: 1243-1248.
- Hardesty, D. L. 1986. Rethinking Cultural Adaptation. *Professional Geography* 38(1): 11-18.

- Hawken, Paul. 1993. *The ecology of commerce: A declaration of sustainability*. New York: Harper Business.
- Henning, D. H. 1974. Environmental policy and administration. New York: American Elsevier Publishing Company.
- Hohl, A. E. and C. A. Tisdell. 1995. Peripheral Tourism: Development and Management. *Annals of Tourism Research* 22: 517-530.
- Hunter, C. 1996. Key concepts for tourism and the environment. In C. Hunter and H. Green. *Tourism and the Environment: A sustainable relationship?* London/New York: Routledge.
- Hunter, C. and H. Green. 1996. *Tourism and the Environment: A sustainable relationship?* London / New York: Routledge.
- Jafari, J. and D. Aaser. 1988. Tourism as the Subject of Doctoral Dissertations. Annals of Tourism Research 15: 407-429.
- Jamal, T. B. and D. Getz. 1995. Collaboration Theory and Community Tourism Planning. Annals of Tourism Research 22:186-204.
- Jochim, M. A. 1981. Strategies for Survival: Cultural Behavior in an Ecological Context. New York: Academic Press.
- Jodha, N. S. 1992. Common Property Resources: A missing Dimension in Development Strategies. World Bank Discussion Paper No.169. Washington D.C.: The World Bank.
- Jodha, N. S. 1985. Population growth and the decline of common property resources in Rajasthan, India. *Population and Development Review* 11(2): 247-264.

- Khan, M. M. 1997. Tourism Development and Dependency Theory: Mass Tourism vs. Ecotourism. *Annals of Tourism Research* 24(4): 988-991.
- Kimmel, J. 1998. Personal communication. Dec. 1.
- Lee, E. M. 1993. The political ecology of coastal planning and management in England and Wales: policy responses to the implications of sea-level rise. *The Geographical Journal* 159(2): 169-78.
- Lee, R. 1994. Values. In R. J. Johnston, D. Gregory and D. M. Smith eds. *The Dictionary of Human Geography*, 3rd edition. Oxford, UK: Blackwell Publishers.
- Lindberg, K., J. Enriquez and K. Sproule. 1996. Ecotourism Questioned: Case Studies from Belize. *Annals of Tourism Research* 23(3): 543-562.
- Lindberg, K. and R. Johnson. 1996. The Economic values of Tourism's Social Impacts. *Annals of Tourism Research* 24(1): 90-116.
- Lindberg, K. and R. Johnson. 1997. Modelling Resident Attitudes Towards Tourism.

 Annals of Tourism Research 24(2) 402-424.
- Livingston, Ian 2986. The common property problem and pastoralist economic behavior. *Journal of Development Studies* 23: 6-19.
- MacCannell, D. 1976. The Tourist: A New Theory of the Leisure Class. New York: Schocken Books.
- Madrigal, R. 1995. Residents' Perceptions and the Role of Government. *Annals of Tourism Research* 22(1):86-102.
- Maril, R. 1989. The Poorest Americans: *The Mexican Americans of the Lower Rio Grande Valley of Texas*. University of Nortre Dame Press. Notre Dame, Indiana.

- Maril, Robert Lee. 1992. Living on the edge of America. College Station, Texas:
- Texas A&M Press. Mathieson, A. and G. Wall. 1982. *Tourism: economic, physical and social impacts*. New York: Longman Group Limited.
- Mill, R. C. and A. M. Morrison. 1985. *The tourism system: an introductory text*. Englewood Cliffs: Pretice-Hall International.
- Montgomery, Julia Cameron. Undated. A little journey through the Lower Valley of the Rio Grande: The Magic Valley of Texas. Publisher Unknown.
- Murphy, P. 1985. Tourism: A Community Approach. New York: Methuenn.
- O'Riordan, T. 1989. The challenge for environmentalism. In R. Peet & N. Thrift eds.

 New models in geography: The Political-economic perspective. London: Clark

 University & University of Bristol.
- Pickles J. and M. J. Watts. 1991. Paradigms for inquiry. In *Geography's inner worlds:**Pervasive themes in contemporary American geography, ed. R. F. Abler, M. G. Marcus, and J. M. Olson, pp. 301-326. New Brunswick, N.J.: Rutgers University Press.
- Ostrom, Elinor. 1990. Governing the Commons. The Evolution of Institutions for Collective Action. Cambridge, Mass.: University Press.
- Pearce, D. 1998. Tourism Development in Paris: Public Intervention. Annals of Tourism Research 25(2): 457-476.
- Pierce, F. 1917. A Brief History of the Lower Rio Grande Valley. Menasha, Wisconsin: George Banta Publishing Company.
- Porter, P. W. 1965. Environmental Potentials and Economic Opportunities -A

 Background for Cultural Adaptation.

- Rutz, H. Z. 1977. Individual Decisions and Functional Systems: Economic Rationality and Environmental Adaptation. *American Ethnologist* 4: 156-174.
- Reed, M. G. Power relations and community-based tourism planning. *Annals of Tourism Research* 24(3): 366-391.
- Richter, L. K. 1989. *The Politics of Tourism in Asia*. Honolulu: University of Hawaii Press.
- Robinson, D. W. 1997. Strategies for Alternative Tourism: the Case of Tourism in Sagarmatha (Everest) National Park, Nepal. In L. France ed. *The Earthscan Reader in Sustainable Tourism*. London: Earthscan Publications.
- Saarinen, T. F. and J. L. Sell. 1980. Environmental perception. *Progress in Human Geography* 4(4): 524-548.
- Scott, F. J. 1937. *Historical Heritage of the Lower Rio Grande*. San Antonio, Texas:

 Naylor Company
- Selin, S., and K. Beason. 1991. Interroganizational Relations in Tourism. *Annals of Tourism Research* 18: 639-652.
- Slovic P. 1987. Perception of risk. Science 236: 280-285.
- Smith, S. 1989. *Tourism Analysis: A handbook*. New York: Longman.
- Sperry, A. 1967. *Great River, Wide Land: The Rio Grande Through History*. New York, New York: Macmillan Company.
- Stambaugh, J. and L. Stambaugh. 1954. The Lower Rio Grande Valley of Texas. The Naylor Company. San Antonio, Texas
- Steward, J. 1955. *Theory of Cultural Change*. Champaigne, Illinois: University of Illinois Press.

- Stonich, S. C. 1998. Political Ecology of Tourism. *Annals of Tourism Research* 25(1): 25-54.
- Turner, B. 1989. Two types of global environmental change: definitional and spatial-scale issues in their human dimensions. *Global Environmental Change*.1:14-22.
- U.S. Fish and Wildlife Service. 1997. Final Lower Rio Grande Valley and Santa Ana Wildlife Refuges Interim Management Plan. Southwest Region of U.S. Fish and Wildlife Service. Albuquerque, New Mexico. 122 pp.
- Valley By-Liners. 1978. Roots by the River. Staked Plains Press. Canyon, Texas
- Waddell, E. 1972. The mound builders: Agricultural practices, environment, and society in the Central Highlands of New Guinea. Seattle: University of Washington Press.
- Watts, M. 1997. Classics in human geography revisted: commentary 1. *Progress in Human Geography* 21(1): 75-80.
- Westcoat, J.L. Jr. 1991. Resourse management: the long-term global trend. *Progress in Human Geography* 15(1): 81-93.
- White, G. F. 1961. Choice of use in resource management. *Natural resources Journal* 1: 3-40.
- Whyte A. V. 1990. Chapter 16, perception. In Robert Kates et. al. eds. Climate Impact Assessment. Scope 27, New York: John Wiley and Sons.
- Williamson R. B. 1966. *The Lower Rio Grande Valley of Texas: Economic Resources*and Growth Prospects to 1983-1984. Bureau of Business Research. The

 University of Texas. Austin, Texas.

Winterhalder, B. 1980. Environmental Analysis in Human Evolution and Adaptation Research. *Human Ecology* 8(2): 135-170.