LINKING LIVELIHOODS AND SUSTAINABLE TOURISM
FOR PARKS AND PEOPLE IN BELIZE

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DEDICATION

To my Dad who introduced me to the wonders of nature; and to others in my family, especially my Aunt Hattie and husband Larry, who cheer me on as I attempt to define a role for myself in the ongoing struggle to preserve such wonders.
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ABSTRACT

Alternative livelihood intervention is a natural resource management strategy used by some parks and protected areas to achieve both environmental and socio-economic objectives. In the coastal areas of Belize and throughout the Caribbean, these strategies are often linked to the tourism industry.

The Port Honduras Marine Reserve (PHMR) in southern Belize, co-managed by the Toledo Institute for Development and Environment (TIDE) and the Government of Belize, oversees an alternative livelihood program aimed at decreasing fishing pressure on marine resources while increasing employment options for local fishers. The program encourages fishers to supplement or replace full-time fishing with more ecologically responsible occupations such as fly-fishing and kayaking guides. TIDE Tours, a subsidiary tour-operating business established by TIDE, facilitates the transition of fishers into these and other tourism-based occupations. In addition, it has the potential to generate funds to help support TIDE. TIDE Tours links PHMR and TIDE with the local tourism industry.

Even when carefully managed to conform to nature-based or ecotourism standards, tourism is, at best, a mixed blessing for small-scale local entrepreneurs and protected area managers alike. PHMR and TIDE seek to design and implement tourism-based strategies that promote the sustainable use of marine resources and increase sound environmental stewardship. An upcoming business planning process directed at TIDE/PHMR will help by identifying appropriate tourism-based funding mechanisms that can be used in concert with conservation strategies to achieve long-term conservation and socio-economic objectives. A marketing plan developed specifically for TIDE Tours as part of the business planning process can help promote ecotourism in and around PHMR, and strengthen the link between local livelihoods and sustainable tourism.
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ACRONYMS

BAS  Belize Audubon Society
CPM  Center for Park Management
CREP Caribbean Regional Environmental Programme
FES  Hausman Foundation for Environmental Solutions
FON  Friends of Nature
GOB  Government of Belize
GOH  Gulf of Honduras (Golfo de Honduras)
LBCNP Laughing Bird Caye National Park
MMMC Maya Mountain Marine Corridor
MPA  Marine protected area
PA   Protected area
PG   Punta Gorda Town, Belize
PHMR Port Honduras Marine Reserve
SHBHNP Saint Herman’s Blue Hole National Park
SWOT Strengths, weaknesses, opportunities, and threats
TIDE Toledo Institute for Development and Environment
TNC  The Nature Conservancy
TRIGOHN  Tri-National Alliance for the Conservation of the Gulf of Honduras
          (Alianza Tri-Nacional para la Conservación del Golfo de Honduras)
UNDP United Nations Development Programme
UNESCO United Nations Educational Scientific and Cultural Organization
USAID United States Agency for International Development
1.0 INTRODUCTION

The people of Belize have long depended on the abundant goods and services provided by the bountiful marine resources that lie just off their coast (Sobel and Dalgren, 2004) for food and income (Heyman and Graham, 2000). Over time, however, their use of these valuable resources has combined with other human activities such as tourism and development to degrade and sometimes destroy these fragile ecosystems. Environmentally insensitive fishing practices such as over harvesting and gill-net use damage marine habitat and deplete populations of marine life (Heyman and Graham, 2000). Recent drops in fishery productivity are driving small-scale fishers to transition to alternative means of support (TIDE, 2003).

Recognizing the inestimable value of Belize's marine resources and their significance to the well being and economic security of the country and its citizens, the Government of Belize develops policies and establishes parks and protected areas to protect those resources. To date, the government has designated 70 protected areas, 22 of which are marine reserves (Center for Park Management, 2005a).
Belize’s visionary Coastal Zone Management Strategy, described by some as “advanced and visionary (Heymand and Graham, 2004 p 287),” appears to be paying off (Sobel and Dahlgren, 2004). However, environmental pressures continue to mount. The remote beauty of Belize draws thousands of tourists who flock to its rainforests, beaches, and ocean to recreate and interact with nature (Mallan and Berman, 2005).

A thriving tourism industry is a mixed blessing for Belizeans, especially those living in coastal fishing communities who depend on the marine resources for their livelihoods. Tourism can expand employment options and support economic development, but unless carefully managed, the benefits accrued tend to flow away from the local communities to large, often foreign enterprises (Sobel and Dahlgren, 2004). In addition, the tourism industry is a major source of environmental degradation (Sobel and Dahlgren, 2004).

There is evidence that most of the strategic options adopted by parks and protected areas in Belize for achieving conservation, socio-economic objectives and for moving toward self-financing lie at the intersection of natural resource management, economic development, and tourism (Center for Park Management, 2005a and 2005b; TIDE 2000). Managers of Belize’s parks and protected areas are at the center of this complex dynamic as they attempt to design and implement strategies that respond to the opportunities and risks inherent in tourism-based initiatives (Center for Park Management, 2005a and 2005b; PHMR 2005).

Some managers of parks and protected areas in Belize and elsewhere adopt alternative livelihood interventions aimed at small-scale artisanal fishers as a means of decreasing pressure on marine resources. To provide alternative employment options and help fund these and other conservation efforts, they employ a variety of tourism-based strategies. Some turn to business planning as a means of identifying a diversified suite of funding mechanisms, and generating communication and marketing plans that can increase the effectiveness of tourism-based strategies (Center for Park Management, 2005a; TIDE 2000; PHMR 2005).

The Port Honduras Marine Reserve in southern District of Toledo, has implemented an alternative livelihood program to address both conservation and economic development concerns in the Toledo District of southern Belize (PHMR, 2005; PHMR, 2003). The Reserve is co-
managed by the Government of Belize and the Toledo Institute for Development and Environment (TIDE). In 1999, TIDE established a small tour-operating business called TIDE Tours to connect local fishers with alternative employment options generated by a growing tourism industry, and to capture a share of the tourism market to help fund conservation activities (PHMR, 2005). A business planning process directed at PHMR/TIDE is currently underway to guide and focus organizational efforts to achieve financial security. The business planning process may include a marketing plan developed specifically for a key funding mechanism such as TIDE Tours. Such efforts contribute to the effectiveness of PHMR/TIDE’s tourism-based strategies, linking livelihoods and sustainable tourism for parks and people in Belize.
2.0 STATEMENT OF PURPOSE AND METHODS

This paper looks at tourism-based alternative livelihood intervention as applied by parks and protected areas in southern Belize and elsewhere, and attempts to determine the extent to which such strategies achieve conservation and economic development goals. It focuses on the influence of tourism on the implementation of such strategies in coastal areas. It identifies some of the conditions that contribute to the effectiveness of alternative livelihood initiatives, with particular interest in overlapping strategies such as training and certification related to alternative employment, environmental education, community outreach, and funding. It looks at business planning as a tool to guide and focus funding efforts, and offers recommendations for developing marketing plans that support tourism-based strategies. In doing so, this paper attempts to:

- Contribute to the understanding of alternative livelihood intervention, business planning, and tourism marketing plans as strategic tools that can help managers of parks and protected areas in Belize achieve environmental and socio-economic goals;
- Inform the business planning process for the Port Honduras Marine Reserve (PHMR) and the Toledo Institute for Development and Environment (TIDE) as it unfolds;
- Encourage and contribute to the development of a marketing plan focused on key tourism-based funding mechanisms for TIDE, especially TIDE Tours.

This paper presents information gathered from a wide range of sources. The literature review and case study components draw from peer-reviewed journals and books, as well as from non-peer-reviewed business plans and organization documents. The discussion and recommendation sections are supplemented by information from interviews conducted with stakeholders in Washington, D.C. and Punta Gorda Town (PG), Belize, as well as by personal observations gathered during on-site visits to Belize.
3.0 REVIEW OF LITERATURE

3.1.0 ALTERNATIVE LIVELIHOOD INTERVENTION

3.1.1 Goals and assumptions

Alternative livelihood initiatives are innovative management strategies directed at communities located adjacent to parks and protected areas. They provide incentives intended to shape and drive resource-dependent occupational transitions from environmentally and economically unsustainable means of support to alternative more sustainable livelihoods (Crawford, 2002; Griffiths, 2005). Park managers design and implement alternative livelihood activities in an attempt to 1) generate income and employment for local people, and 2) decrease pressure on the resources in and around the protected area. In part, this is meant to offset the real or perceived loss of benefits resulting from restrictions on access to and use of marine resources protected by a park (Griffiths, 2005).

Oceans and coastal areas are under siege from many threats worldwide, including pollution, habitat destruction, the excessive harvesting of fish and other marine life, and climate changes that threaten to overwhelm marine resources and decrease human livelihood productivity and financial security for many (Sobel, 2004). Alternative livelihood interventions are adopted by many managers of marine protected areas as means of reducing human pressure on overexploited aquatic ecosystems, especially fisheries. Smith (1979) proposed alternative livelihood intervention almost 30 years ago as a conservation strategy directed at small-scale fishermen to lesson pressure on over-exploited fisheries (Crawford, 2002; Smith, 1979). Given the links between occupational activities and resource use, managers of coastal parks and protected areas continue to explore alternative livelihood strategies as appropriate approaches to both conservation and community development challenges (Griffiths, 2005).

Livelihood issues exist within a broader context of numerous and diverse ecological and social dynamics. Their position within a particular management agenda depends partly on protected area priorities and the particular mix of conservation strategies employed. Alternative livelihood issues typically operate on the periphery of park policy, which sometimes belies their true significance and potential impact (Campbell, 2004).
Alternative livelihood interventions can be applied to a wide variety of resource-dependent employment contexts. In a marine setting, such initiatives are often designed to achieve two objectives: 1) to raise the socio-economic status of small-scale fishers and their communities, and 2) to reduce fishing effort in and around a particular marine protected area. Alternative livelihood initiatives in marine protected areas tend to be based on the assumption that small-fishers are poor, due partly to overexploited resources, and thus are willing to make occupational changes in favor of more lucrative occupations; and that pressure on local fisheries will be relieved as those changes take place (Crawford, 2002). While many question these assumptions (Crawford, 2002; Pollnac et al., 2001) and other aspects of specific alternative livelihood programs (Crawford, 2002; Griffiths, 2005), there is evidence that such interventions can work under the appropriate circumstances (Campbell, 2004; Crawford, 2002; Smith, 1979).

3.1.2 Conditions for success

1. Effective alternative livelihood interventions are based on local skills, resources and cultural knowledge (Griffiths, 2005). Initiatives that reflect the complexity of people’s livelihoods and the nature of their interaction with and dependence on the resources have the greatest chance for success. Before implementing them, managers should undertake culturally appropriate baseline studies of resource use and sustainability to demonstrate a direct correlation between occupational activities and resource degradation (Griffiths, 2005). Indigenous and local communities express concern that they are often blamed for environmental problems and become the focus of alternative livelihood programs, while larger and more powerful outside commercial offenders, many of them foreign, are overlooked despite their higher level of impact (Griffiths, 2005). A participatory approach to planning and implementation provides valuable insights into local culture.

Local communities may already be carrying out innovative informal livelihood activities on their own that can be integrated into a formal alternative livelihood program or supported independently. Alternative livelihood interventions should aim to identify and support effective local conservation agendas before imposing external ones; they should build on rather than replace sustainable traditional occupational practices (Griffiths, 2005).
For coastal communities, livelihood changes that weaken or break bonds with the sea threaten cultural and spiritual integrity and cause loss of traditional knowledge. According to Bunce and Pomeroy (2003), “It is critical to recognize the close link between how a community uses coastal resources and the socioeconomic context of the community” (Bunce and Pomeroy, 2003 p 3).

2. Alternative livelihood initiatives are more likely to be successful when designed to shift or modify local livelihoods rather than replace them (Campbell, 2004; Crawford, 2002; Smith, 1979; Griffiths, 2005). Occupational transitions that involve incremental change and lower levels of risk-taking (Crawford, 2002; Campbell, 2004) are more likely to be adopted than those requiring larger riskier behavioral leaps. For coastal communities, this means promoting change that maintains traditional social, cultural and spiritual ties to the sea. There is no reason, however, to discourage those who are willing to make large occupational shifts from doing so. In the case of alternative livelihood programs aimed at decreasing fishing pressure, evidence shows that the greatest ecological benefits occur when interventions lead to a decrease in the number of full-time fishing efforts (Crawford, 2002; Smith, 1979).

3. Alternative livelihood programs can only be effective when used in concert with other conservation and social interventions (Crawford, 2002). For example, buyback programs (offers to buy and destroy environmentally destructive fishing gear from offending fishers) have been found to be ineffective unless combined with other programs such as social services and job training that help transitioning fishers find alternative employment (Crawford, 2002; Holland et al., 1999). To promote and sustain adoption of new behavior, program-related incentives and tactics should be integrated with skills training and certification. Recruitment and retention activities should be coupled with community outreach and education efforts that reinforce change and demonstrate the feasibility and benefits of adopting new occupations.

4. Where poverty is an issue, alternative livelihood intervention should reflect the link between conservation and poverty (Campbell, 2004). Among international development professionals, alternative livelihoods have been major sub-topics of the broader economic growth discussion for some time and are now included in the arsenals of those engaged in poverty-
reduction struggles (Campbell, 2004). The poverty-conservation linkage is increasingly reflected in global policy.

Campbell (2004) found that alternative livelihood initiatives have contributed significantly to growth in Gross Domestic Product (GDP), and describes them as typically urban-based and capital intensive. He found that, while the poor may benefit in some situations, they are often marginalized by conservation and development activities. They typically lack the ability and resources to make the intended occupational shifts and can end up worse off as a result of having their livelihood options reduced by well-intentioned alternative livelihood intervention (Campbell, 2004). Griffiths (2004) warns that in extremely underdeveloped areas, the poor may be further disadvantaged when alternative livelihood programs remove their non-monetary subsistence benefits (free access to marine life, which can be consumed directly or used as barter), and force them into economies based on hard-currency – create the need to acquire cash in order to feed their families and obtain other basic goods and services.

5. For results to be sustainable, economic and non-economic incentives must be legitimate and attractive enough to drive voluntary adoption of change. Griffiths (2005) states that "one of the criticisms of alternative livelihood approaches is that they are not always endorsed by the beneficiaries who may view them as ‘sweeteners’ to attract local communities into accepting the external agendas of the government and conservationists (p 34)." He suggests that in the best circumstances, local communities not only embrace alternative livelihood programs, but request them (Griffiths, 2005).

Fishers are less willing to adopt new techniques or technology and more likely to return to unsustainable previous behavior if livelihood alternatives are either poor economic substitutes or provide lower job satisfaction than traditional occupations (Crawford, 2002; Smith, 1979). Pollnac et al. (2001) found non-economic factors such as tradition and the pleasures of the job as discouraging occupational change. Poorer, younger, more geographically isolated, less educated and less successful fishermen are less likely to accept the risks of a new activity and show less willingness to adopt new behaviors, therefore may require incentives compared to other targeted groups (Crawford, 2002; Smith, 1979).
3.1.3 Concept, planning and implementation issues

1. Proponents of alternative livelihood intervention should establish its appropriateness in light of such factors as: proximity of the park to communities (remoteness); nature and level of impacts resulting from linkages between occupational exploitation of park resources and resource degradation, etc. before implementing such initiatives. Alternative livelihood interventions are appropriate for some but not all parks and protected areas. Such initiatives serve no purpose in situations where there is no connection between occupational practices and degradation of park resources, either because there are no communities located in or near the park (Virgin Islands National Park, 2001), or because resources are already being used in a sustainable manner by adjacent communities (Griffiths, 2005).

The Virgin Islands National Park is an example of a park where alternative livelihood intervention is not appropriate and is not being applied. The park is remote, far from human populations except for the gateway community of Cruz Bay. The park is impacted, not by the presence of adjacent communities but by the absence of them (Virgin Islands National Park, 2001). The park has significant staffing challenges precisely because of its distance from communities – staff must be actively recruited, housing provided, etc. The major threats to the park’s resources have no connection with local livelihood issues. The loss of viewshed and degradation of the terrestrial forests and marine habitats are due to private development; overgrowth and erosion of prehistoric sites result from insufficient funding for maintenance; and the major threats to indigenous plants and animals in the area are exotic animals - white tail deer, donkeys, pigs, goats, cows, European boar, Indian mongoose, rats, dogs, and cats. (Virgin Islands National Park, 2001).

2. Alternative livelihood initiatives are very difficult to implement (Campbell, 2004). A participatory approach to planning and implementation is essential to achieving and sustaining success (Griffiths, 2005). Discussion and decision-making should be based on scientific research, local knowledge, and multidisciplinary expertise (Griffiths, 2005). As with of any natural resource management strategy, effective implementation is dependent on thorough screening of options and careful planning beforehand, as well as on the monitoring of progress, solicitation of
feedback, evaluation of impact and willingness to make mid-course corrections throughout (Bunce and Pomeroy, 2003).

3. **Targeting is essential.** Occupational preferences and goals vary widely between stakeholders. People respond differently to various tactics and incentives. Demographics such as gender and age distribution are relevant. For instance, males make up the majority of at-sea commercial and subsistence fishers (Heyman and Graham, 2000). Alternative livelihood programs aimed at shifting fishing patterns are likely to have positive impact when they a) target males, and b) promote transitions to male-dominated labor pools rather than to those associated with women (Pollnac et al., 1997a). When possible, incentives and disincentives should be targeted to a particular sub-group or individual whose behavior is most environmentally egregious (Maheia interview, February 2006).

4. **Alternative livelihood programs have greater impact when they promote occupational diversification, which mitigates risk and increases household income security (Crawford, 2002; Smith, 1979).** By creating opportunities for members of targeted households to engage in more than one primary or supplementary income-generating activity (Crawford, 2002; Pollnac et al., 1997a), such programs encourage diversified employment “portfolios” that can have both economic and environmental benefits.

In describing the factors that motivate people toward occupational diversification, Barrett (2001) identifies “push factors” such as risk reduction, response to diminishing return, etc.; and “pull factors,” which include local economic engines of growth such as tourism, etc. He encourages the creation of strong incentives to motivate people toward diversifying their income-generating activities, and considers the study of diversification behavior as relevant to issues of alternative livelihood (Barrett, 2001). As discussed earlier, creating strong incentives is essential to driving adoption of new behavior (Griffiths, 2005).

In their article about the effects of informal insurance, Bender et al. (1998) showed that supplementary income sources decrease economic risk for households by providing informal insurance against sudden downturns caused by natural or economic events. They cited evidence that informal insurance can function as a substitute for rules or norms in regulating resources use,
and thus complement other natural resource management strategies (Bender et al., 1998). This presents additional evidence that promoting alternative livelihoods strengthens good environmental stewardship.

5. Alternative livelihood programs aim to promote the sustainable use of natural resources, and thus are successful only in so far as the targeted alternative behavior imparts equal or greater ecological benefits than the behavior being altered or replaced (Crawford, 2002; Delmendo, 1989; Crawford, 2002; De Silva, 1992; McIntosh, 1999). The consequences of livelihood shifts are sometimes extremely difficult to establish - evaluating total impact is often complex and inconclusive, but great care should be taken to anticipate the wide range of possible ecological scenarios, and design and implement programs that guide occupational transitions toward environmentally sound outcomes.

Examples that reflect concerns about the costs and benefits of different mariculture industries are illustrative when placed in the specific context of Belize. Many alternative livelihood initiatives in coastal areas promote transitions to mariculture industries such as seaweed farming in the Philippines (Crawford, 2002; Delmendo, 1989), or shrimp farming in Belize, yet there is great concern in both cases about their ecological impact.

Seaweed farming appears to have a relatively benign effect on adjacent marine ecosystems compared to other mariculture farming practices. It does directly alter the physical environment, however, and thus is likely to lead to habitat, water flow, sedimentation, erosion, nutrient-loss, and coral reef sun-exposure alteration issues (Crawford, 2002; De Silva, 1992). Similarly, there are ways of farming shrimp that attempt to mitigate environmental impact, and a few shrimp mariculture enterprises claim to be using them with measurable success. The majority of shrimp farms in Belize, however, are ecologically destructive and do little to generate local jobs (Mcintosh, 1999).

Research continues and new methods and technologies are being developed, but at this point, some basic conclusions can be drawn that are relevant to the concept development of alternative livelihood interventions. Seaweed farming appears to be more economically viable and ecologically responsible than shrimp farming, but may not be suited to the particular
environmental and socio-economic conditions found in Belize. Shrimp farming is suitable, but ecologically appropriate only when accompanied by significant outside investment and strict compliance to and enforcement of industry best-practices; additionally, it promises few local jobs. Thus, neither of these mariculture industries offers acceptable employment alternatives to fishers in Belize.

6. Implementation involves overcoming local resentment of alternative livelihood or any other program associated with a marine protected area (MPA) due to lack of understanding or difference of opinion about the long-term economic and environmental benefits of MPAs. For a variety of reasons, poorer fishers are typically interested in short-term solutions and wary of delayed gains. Even when scientific evidence is presented, local stakeholders are often skeptical of the claim that the restrictions imposed by reserve managers will improve rather than diminish their ability to support their families (Griffiths, 2005). Monitoring and research should be carried out that addresses issues of the effectiveness of MPAs. Success stories should be distributed to all stakeholders, including local communities.

7. Education and outreach campaigns are used to complement alternative livelihood initiatives. For example: The Nature Conservancy supports an alternative livelihood project in the Komodo National Park in Indonesia that educates local communities and private sector industry on best practices and ecological and economic sustainability in relation to the park. The campaign includes distribution of a series of films, booklets and school kits, as well as regular stakeholder meetings to help explain the role of conservation in protecting livelihoods and engage the community (Pet-Soede, 2003). MPAs themselves provide the context within which stakeholders and the public at large can directly experience the marine environment. Sobel and Dahlgren (2004) describe the educational value of MPAs in the Philippines, New Zealand, and Belize. One example cited is the small Leigh reserve in New Zealand visited in 2004 by more than 200,000 visitors, including 10,000 schoolchildren. The visitors came “to view and enjoy the reserve, but remove virtually nothing from it (Sobel and Dahlgren, 2004 p 323).” Such heavy visitation involved costs and required careful management, but fulfilled an important public
education role that is described as having positive conservation implications (Sobel and Dahlgren, 2004).

The strong linkage between conservation, economic development, and tourism is often reflected in alternative livelihood intervention in Belize and elsewhere in the Caribbean Basin. It is useful next to present a brief description of the tourism industry in Belize and its role as a source of jobs and funding to support alternative livelihood intervention, followed by a brief overview of business planning and marketing as means of realizing the benefits and mitigating the risks of tourism-based strategies.

### 3.2.0 TOURISM

Tourism drives local and global economies worldwide, and alters the natural and human environment on a staggering scale (Orams, 1996). It is leaving its mark on even the most remote places on the planet.

#### 3.2.1 Issues of sustainability

In the 1990s, ecotourism, or nature-based tourism as it is sometimes called, came on the scene to become one of the largest and fastest growing industries in the world (Orams, 1996). Ecotourism is broadly defined as travel that allows interaction with nature and local communities with minimal negative impact (Carrier and Macleod, 2005; Palacio, 1997). In contrast to conventional mass tourism, ecotourism aims to “minimize environmental and cultural damage,…and maximize long-term economic growth for the region (Lane, 1994 p 13).” Ecotourists are seen as more likely to use locally owned accommodations and services and thus to benefit local economies, and more likely to support parks and conservation organizations through user fees and voluntary donations and thus to support conservation programs (Carrier and Macleod, 2005). Tourism marketers use the term ecotourism as a brand to label commercial tour packages that offer a broad range of activities encompassing everything from “deep-green” conservation hikes to sunbathing and snorkeling.

The concept of sustainable tourism appeared for the first time in Alpine Europe in the 1970s. Since then, sustainable tourism has been used increasingly as a response to the threats
inherent in unmanaged tourism, and as a way of recovering at least part of the losses derived from tourism-related environmental exploitation (Lane, 1994). Sustainable tourism is a spin-off of ecotourism. It shares the same goals, but is focused heavily on lowering environmental and social impact long-term, and is used by many to indicate tourism that attempts to adhere to sustainable development principles (Wight, 2002). Typically, sustainable tourism promotes interaction with nature in pristine settings using the services of small-scale local tourism enterprises (Lane, 1994; Krippendorf et al., 1988; Hawkes and Williams, 1993; Branwell and Lane, 1993).

Sustainable tourism as a concept is alive and well in Belize, a country that markets itself as “Mother Nature’s best kept secret (Belize Tourism Board, 2006).” Travel guide books refer to Belize as a world-class dive site, and describe the tiny country variously as a practical, exciting, exotic, “hot” tourist destination (Webster, 2002; Mallan and Berman, 2005). Tourists come to Belize to enjoy the warm ocean, sandy white beaches and barrier reef through such activities as snorkeling, sport-fishing, scuba diving, sailing and island tours (Center for Park Management, 2005a). Belize’s friendly English-speaking population and proximity to the United States and Canada partly explain its popularity. Belize is the only country within the Caribbean to experience consistent increases in overall tourist arrival since 1998, including post-9/11, a period that devastated other tourism-dependent areas (Mallan and Berman, 2005).

Tourism generated approximately US$44 million in foreign exchange for Belize in 2003, realizing earnings of over US$312 million. Tourism is Belize’s fastest growing industry. It increased by 11 percent between 2002 and 2003. National parks and protected areas draw many tourists to Belize. Thirty percent of tourists visited national parks or preserves in 2003 (Center for Park Management, 2005b). San Pedro on Amergris Caye is the most popular tourism destination in Belize, attracting 32 percent of the tourists visiting the country in 2003. Caye Caulker and Hol Chan Marine Reserve are other popular sites. Eighty percent of tourists entering the country come primarily to enjoy the ocean and beaches, and to dive or snorkel along the Belize Barrier Reef. Some tourists combine this with inland visits to San Ignacio and the Cayo District where they enjoy Belize’s mountain forests, jungles, and caves. There is also a smaller proportion of
tourists who are interested in visiting cultural sites, especially the Mayan ruins in Belize and nearby Tikal in Guatemala (Center for Park Management, 2005b).

The perception is that the laudable principles and goals of sustainable tourism and ecotourism translate into practice in Belize and elsewhere. Carrier and Macleod (2005) give reason to question this assumption, however. They observe that while there are many examples of environmentally and socially responsible tourism, the vast majority of ecotourists fall short of the “green” mark and for the most part, are unaware of having done so (Carrier and Macleod, 2005). The authors describe the “ecotourist bubble” that insulates travelers from significant truths about the impact of their interaction with nature and culture. For example, ecotourists are not informed about the environmental costs of their being transported to and from distant destinations, nor are they made aware of the socio-cultural consequences of their interaction with indigenous peoples (Carrier and Macleod, 2005). Detractors of ecotourism view it as merely another form of environmental exploitation (Carrier and Macleod, 2005).

The future of many marine protected areas is closely tied to tourism. Despite its flawed image, tourism has the potential to generate income to support conservation activities through funding mechanisms that capture a segment of this lucrative market (Dharmaratne et al., 2000; Flores, 2005; Carrier & Macleod, 2005). In Belize, strategies are developed to manage tourist activities, and multiple programs, including alternative livelihood initiatives, depend on tourism-based funding strategies (Flores, 2006; Dharmaratne et al., 2000). Many protected areas that once relied on government and international donors now see international tourism, especially ecotourism, as one of the few roads leading to self-financing (Dharmaratne et al., 2000). Managers are aware of the many opportunities and risks associated with relaying so heavily on such a lucrative but volatile industry, but often have little choice but to engage them.

### 3.2.2 Opportunities and risks of tourism-based strategies

Tourism is the major economic engine driving the economies of Belize and many other countries in the Caribbean (Caribbean Environmental Network, 1996). The implications of this have not gone unnoticed by managers of marine protected areas. The resources they preserve and protect provide the backdrop for the tourism phenomenon, and suffer its indignities while
realizing few benefits. Almost all parks and protected areas in the region are seeking ways to capture a share of the lucrative tourism market to help achieve self-financing. In addition to the many opportunities, however, there are major risks that accompany a reliance on this industry (see Figure 1).

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**FIGURE 1: OPPORTUNITIES & RISKS OF TOURISM-BASED STRATEGIES**

**OPPORTUNITIES - When things go right, tourism-based strategies:**

- Support conservation programs
  - Tap the private sector as source of revenue
  - Increase donor awareness and interest
  - Offset environmental costs related to tourism
  - Complement other tourism-based strategies to increase overall impact and magnify funding gains during upturns in market
- Strengthen local economies
  - Provide local jobs
  - Diversify employment portfolios, thus decreasing financial risk for households
  - Increase economic contribution and status of women in fishing communities
  - Reduce employment-related emigration
  - Preserve local culture and traditional knowledge
  - Realize local benefits from broader tourism market
  - Build alliances between tourism-oriented stakeholders

**RISKS - When things go wrong, tourism-based strategies:**

- Exploit natural resources
  - Degrade or destroy ecosystems
  - Increase costs related to managing tourism with little or no reimbursement
  - Create over-dependence on tourism to achieve conservation objectives
  - Interact with other tourism-based strategies to diminish overall impact and magnify funding losses during downturns in market
- Weaken local economies
  - Channel profits from small-scale local entrepreneurs to large foreign investors
  - Displace locals by increasing foreign investment, limiting access to resources
  - Provide few jobs while increasing expectations of employment locally
  - Tie household income to a single industry, thus increasing financial risk
  - Drive employment-related population shifts
  - Sever cultural ties and ignore traditional knowledge
  - Increase gender/generation tensions as women and youth enter the job market
  - Increase social and political tensions as outsiders immigrate/compete for jobs
  - Impose local infrastructure costs from national/regional/global tourism market
  - Increase competition between tourism-oriented stakeholders

Sources: Heyman and Graham, 2000; Carrier and Macleod, 2005; Dharmaratne et al., 2000; Wight, 2002.

The opportunities and risks listed in Figure 1 vary in scale and cover a broad range of issue. In designing and carrying out park policy, managers should seek ways to mitigate the threats and realize the benefits of overlapping tourism-based strategies. Business planning can
help managers address this challenge. The business planning process can identify appropriate
tourism-based strategies to be used in concert to achieve conservation and funding objectives,
and can provide guidance and tools to implement those strategies effectively. One particular
business planning process is specifically aimed at parks and protected areas, and is directly
related to the Belizean case studies presented in this paper.

### 3.3.0 BUSINESS PLANNING FOR PARKS AND PROTECTED AREAS

#### 3.3.1 CPM Parks and Protected Area Business Planning Initiative

The National Parks Conservation Association’s Center for Park Management (CPM)
works with the National Park Service to “improve the management capacity and organizational
effectiveness of the stewards of national parks in the United States and abroad (Center for Park
Management, 2005c). The CPM Parks and Protected Areas Business Planning Initiative helps
protected area managers develop business plans to guide and support them as they carry out the
“business” of park management. To date, business plans have been developed for 75 national
parks, nine national forests, and one state park in the United States, and four international
protected areas (Edwards, 2005).

In 2003, CPM decided to expand its “tool chest of best practices” overseas, and selected
Belize as an appropriate place to start (Edwards, 2005). Since then, CPM has conducted pilot
business planning projects for two national parks in Belize: the Laughing Bird Caye National Park,
a marine protected area, and the St. Herman’s Blue Hole National Park, a terrestrial park. A
business plan for a third Belizean entity, the Port Honduras Marine Reserve, is currently in
progress.

#### 3.3.2 Value of business planning

The core financial and operational goal of CPM business plans is to help parks and
protected areas achieve sustainable funding. When well designed, protected area business plans
are also valuable communication tools for increasing visibility and raising awareness of
conservation issues among stakeholders, as well as for informing and attracting investors (Center
for Park Management, 2005c). Evidence of sound business planning is an indication to donors of organizational professionalism.

The primary purpose of the business planning process is to identify core goals, and to determine resources needed and develop strategies aimed at reaching those goals (Center for Park Management, 2005c). Key decision makers, financial officers and staff of the protected area and managing organization, facilitated by outside consultants, spend 5-10 hours per week for approximately four months attempting to define goals and strategies, and evaluate the current and projected financial status of their “business (Center for Park Management, 2005c).”

CPM business plans are designed for use by park managers and stakeholders across a broad national and cultural spectrum. For this reason, the language and style of the business plans are concise and user-friendly. The format and content vary and can be adjusted to fit the specifics of each park, but for the sake of consistency, most CPM business plans provide historical context, timely financial data, market analysis, and strategies for success that include a marketing plan (Center for Park Management, 2005c).

### 3.3.3 Marketing components of CPM business planning process

The various components of the business planning process provide a composite picture of the park’s financial status. The market analysis and marketing plan components are particularly relevant to some of the issues discussed in this paper, and are described in the Center for Park Management’s Business Plan Manual as follows:

- **Market analysis** - “a brief section describing…customers and stakeholders and the competitors and alternatives to the type of services that the [protected area] provides (Center for Park Management, 2005c p 5);” it includes a SWOT (strengths, weaknesses, opportunities, and threats) analysis of the PA, as well as a historic visitation chart (Center for Park Management, 2005c).

- **Marketing plan** - provides “ideas on how to improve local, regional and national awareness about the PA’s mission and purpose (Center for Park Management, 2005c p 5);” focuses mainly on establishing the position of the park or protected area with respect to the goods
and services it provides; and flows out of the market analysis (Center for Park Management, 2005c).

**3.3.4 Market analysis and screening identify and prioritize strategies**

The Nature Conservancy (TNC) together with the Conservation Finance Alliance designed a global strategy on financial sustainability that presents a methodology for identifying and prioritizing funding options, referred to as “funding mechanisms” in the context of the CPM business planning process (Flores, 2005; Flores interview, 2006). The market analysis and screening phases of that methodology are useful in identifying and prioritizing appropriate strategies. The market analysis phase generates a list of funding mechanisms that have a realistic potential to contribute to funding objectives. The screening phase expands and filters that list, linking protected area goods and services with potential “investors” (Flores, 2005). This methodology can be applied to help managers develop a suite of viable complementary tourism-based strategies that function both individually and collectively to achieve management objectives for marine protected areas.

**3.4.0 MARKETING PLANS FOR TOURISM-BASED STRATEGIES**

Managers of protected areas that are highly dependent on tourism have strong incentives to help strengthen the local tourism market, and to create financial links between the park’s goods and services and constituents who wish to access those goods and services. A separate marketing plan developed for each key tourism-based strategy would be helpful in this regard. Re-examination and clarification of such basic terms and concepts as “marketing,” “marketing plan,” “communication,” “goods and services,” “product,” etc. would be an important first step for those tasked with developing such a plan, especially where the definitions put forth in the CPM business plan guidelines differ from those generally accepted by marketing professionals and/or the public at large.

For example, one of the CPM business plans defines marketing as “…including all the ways that a park or organization is presented to the public and to its constituents—brochures, advertisements, signs in the park, interactions between staff and the public, uniforms on the staff,
and the condition of trails and building are all components of marketing (Center for Park Management, 2005a p 40)." In contrast, marketing is often considered by the general public to involve primarily selling and advertising—two aspects of promotion. The American Marketing Association, however, describes marketing as "the process of planning and executing the conception, pricing, promotion, and distribution of ideas, goods, and services to create exchanges that satisfy individual and organizational objectives (Mahoney and Warnell, 1987 p 2)." Further discussion and clarification would be helpful as part of the CPM business planning guidelines.

Similarly, the CPM manual defines a marketing plan as describing the customers, competition, and marketing tactics (promotion) as well as the costs, suppliers, location, resource, staff, and partnerships (positions and pricing) associated with attracting funding to the park or protected area (Center for Park Management, 2005c). A different and more concise definition appears in a business school publication that describes marketing plans as systematic presentations of the strategy and tactics for managing a given offering (Chernev, 2003). According to some marketing professionals, marketing strategies involve a mix of offerings designed to appeal to a particular group of customers. These can be external, as represented by the classic “4 Ps”– product, price, place and promotion; or internal–hospitality and guest relations, quality control, personal selling and employee morale (Mahoney and Warnell, 1987). Again, further guidance and clarification in the CPM business planning guidelines would be useful.

However they are defined and whatever their content, marketing plans should be developed early in the marketing process to increase effectiveness and efficiency. CPM business planning practitioners are likely to agree with marketing professionals who contend that the most useful aspect of writing a marketing plan is often the process leading up to it (Chernev, 2003; Beckwith, 1997). The structure of marketing plans vary, but they typically include: goals and objectives as they relate to market, business profile, market identification and segmentation, market assessment, implementation, and evaluation (Mahoney and Warnell, 1987; Chernev, 2003). Implementation and evaluation strategies are also key to the effectiveness of any
marketing plan (Mahoney and Warnell, 1987). Once again, further guidance and clarification in the CPM business planning guidelines would be useful.

All marketing plans should be based on a clear understanding of the scope and nature of the “product” being marketed. Typically, CPM marketing plans are developed for and focus on a park or protected area and the organization that manages it. In contrast, a marketing plan developed for a specific funding mechanisms such as a cruise ship interpretation program or a tour-operating business will have an entirely different focus. In all cases, the needs, behavior, and expectations of visitors and guides should be taken into account, but the latter will be designed to market the recreational and hospitality experience rather than a park or organization as the primary product.

No matter what the emphasis, such marketing plans should take into account the wide range of travel and hospitality services available in the area. The professional literature recognizes these services as being made up of numerous elements represented by a variety of businesses, organizations and government entities - hotels, restaurants, theaters, customs agencies, tour operators, etc., as well as parks and protected areas. The experiential and diverse nature of tourism services presents great marketing and quality control challenges (Mahoney and Warnell, 1987).

Above all, marketing plans for tourism-based strategies for parks and protected areas should reflect a clear understanding of the goals and best practices of nature-based tourism or ecotourism, and should promote the environmentally responsible and culturally sensitive objectives of what is optimistically referred to by many as “sustainable” tourism. Such marketing plans should also explore the possibility of tapping into the broader ecotourism market.

There is much that can be learned from the existing literature on these and related subjects. A review of even a small segment of the vast body of research and theory related to the marketing of recreation, travel, and tourism is beyond the scope of this paper, but some of the guidelines and lessons learned that are presented in the literature should be reflected in the marketing components of the CPM business planning process.
4.0 SUPPORTING CASE STUDIES

This section of the paper temporarily shifts the geographical context from the Caribbean Basin to the western United States in order to broaden the perspective of the literature review. It looks at situations that, on first glance, appear to have little in common with protected areas in Belize. What are shared, however, are resource-based employment challenges. Along the coast of southern Belize as well as throughout much of the timber forests and grazing lands of the western United States, local residents depend on government-managed resources for their livelihoods. Protected area managers seek ways to work with local residents and other stakeholders to achieve both ecological and economic objectives. Stakeholders with divergent values and needs often find it difficult to work together, especially when resource-users resent the real or perceived economic loss resulting from restricted access to protected areas resources.

The following research and case studies briefly touch on a variety of alternative livelihood interventions that collectively suggest the importance of building trust between stakeholders and establishing innovative community collaborations as crucial first steps in addressing resource-use workforce challenges. The final two case studies return the focus to Belize, drawing on business plans to provide further evidence of the importance of alliances, and highlighting other conditions that affect the effectiveness of alternative livelihood intervention for parks and protected areas.

4.1.0 COLLABORATION FOR PARKS AND PEOPLE, UNITED STATES

The Western United States is made up of vast expanses of land that are owned privately and managed by the federal government—as high as 90 percent of the land area in such states as Arizona and Nevada (Rasker, 2005). Heated debates about land use in the region often center on the question of how differing management regimes for federal public lands affect the economies of adjacent communities. Rasker (2005) demonstrates a positive correlation between the presence of protected lands and the personal income growth of members of nearby communities. He concludes that, while the strength of the correlation varies by county, there is no strong evidence that local economies suffer when public lands are set aside and resource extraction is restricted; there is, in fact, evidence to the contrary (Rasker, 2005). Despite such
scientifically-based findings, hostility between local citizens and the federal government over the
management of natural resources is not uncommon in the Western United States, and is often
associated with concerns over the future of resource-dependent livelihoods.

Baker (2005) examines the institutional and organizational challenges of addressing such
conflicts in the context of labor-related ecological restoration initiatives in Humboldt County,
California. He suggests that viable solutions lie at the nexus between conservation and social
goals. He states that regardless of the particular circumstances, success requires the "artful"
coordination and alignment of divergent skills, expertise, and capacities; as well as the need for
sufficient funding. He stresses the importance of initially developing trust between stakeholders,
in this case between private land owners and the government agencies (Baker, 2005). The three
groups described below formed alliances and partnerships as an essential first step toward
moving forward.

The following three case studies support these conclusions. The Gifford Pinchot Forest in
southcentral Washington state was a highly productive timber forest in the 1970s and 1980s.
Production dropped in the early 1990s, blamed on implementation of a forest management plan
to protect the habitat of the endangered spotted owl. Environmentalists appealed a series of
timber sales to halt the harvesting of old-growth timber, resulting in 30 percent unemployment in
some timber-dependent towns and devastating local economies. A period of growing hostility and
resentment was followed by the realization that the viability of the local economy is intertwined
with the health of second-growth forests (Little, 2005).

In 2002, the Gifford Pinchot Collaborative Working Group was formed. This alliance of
environmentalists, labor, industry, tribal and community members is committed to producing both
jobs and healthier watershed through thinning of forests, improving stream channels, and
repairing or decommissioning roads. Their greatest accomplishment to date is the bringing
together and building of trust among a diverse group of stakeholders to work on shared interests.
Despite this success, they now must demonstrate that the plan they developed together can
actually work to restore forest ecosystems and provide a sustained level of local jobs. The
immediate challenge is to develop and market value-added forest products in a still struggling
economy while simultaneously dealing with diminishing job skills among the local work force and the U.S. Forest Service, and adjusting to transitions within their internal organization (Little, 2005).

Similar scenarios are unfolding in the San Juan National Forest in Montezuma County, Colorado and in the Fremont Winema National Forest in Lake County, Oregon. In both areas, the timber boom of the 1980s was followed by plummeting harvests in the 1990s, pitting environmentalists against the timber industry and local loggers, with the United States Forest Service caught in the cross fire. Starting in the mid-1990s, meetings were organized to bring together divergent stakeholders who discovered common values and interests. There have been efforts to develop and market non-traditional forest products. The Ponderosa Pine Forest Partnership in Montezuma brought in ecologists and economists to plan initial timber sales with a focus on restoration. Local citizens have been given access to and provide most of the labor for a scientifically-based monitoring model that tracks all ponderosa pine sales (Little, 2005).

It is important to note that not one of the alternative livelihood programs described above has achieved unqualified success and fulfilled its mission. Alternative livelihood programs clearly should not be viewed as quick fixes, but rather as a “works in progress” that demand long-term planning, funding, and commitment. Alternative livelihood intervention is not a magic bullet, but can be used in concert with other strategies in the continuing search for environmentally sensitive solutions to resource-dependant workforce challenges.

4.2.0 LAUGHING BIRD CAYE NATIONAL PARK, BELIZE

Laughing Bird Caye was declared a National Park by the Government of Belize in 1991 in response to increased degradation of its ecosystems by fishing and tourism activities (Center for Park Management, 2005a). Laughing Bird Caye is a palm-fringed tropical island located between the town of Placencia and the Belize Barrier Reef. Once a rest stop for conch and lobster fishers, The caye’s white sandy, insect-free beaches, clear blue waters, and abundant marine life, have made it a popular day trip destination for snorkelers, divers, and sun worshipers for over two
decades. Laughing Bird is the only caye in the area to offer restroom facilities, picnic tables and a palapa (thatched shelter) (Center for Park Management, 2005a).

Laughing Bird Caye National Park (LBCNP) was declared a World Heritage Site by the United Nations Educational Scientific and Cultural Organization (UNESCO) in 1996 (Center for Park Management, 2005a). The park is home to the endangered Hawksbill turtle, *Eretmochelys imbricata*; 16 different species of crustaceans; 20 different mollusks, including the rare Queen conch, *Strombus gigas*; and 106 identified species of fish including Permits, Nassau Grouper and Yellowtail Snapper. But the biodiversity value of the park is being threatened. The laughing gull, *Larus atricilla* (Jones, 2003) (photo above), for which the island was named left the island in the 1970s due to human encroachment. Most of the vegetation was destroyed when Hurricane Iris crossed directly over the caye in 2001. The coral reef that lies just beyond the park’s outer rim had already been damaged by siltation from shrimp trawlers and was showing the effects of global warming when the hurricane damaged it further. Since then, mechanical damage to the reef has increased from under 1 percent to over 70 percent. (Center for Park Management, 2005a).

Since 2001, Friends of Nature (FoN) has co-managed the park’s 10,119 acres along with neighboring Gladden Spit and Silk Cayes Marine Reserve with the Government of Belize Fisheries Department. The mission of the park is to “manage, protect and promote the sustainable use of Laughing Bird Caye National Park for the benefit of present and future generations (Center for Park Management, 2005a p 9).” FON seeks to protect the park’s resources against environmental degradation brought about by such environmental threats as destructive tourism and fishing, and to engage the local communities in the management of the park resources (Center for Park Management, 2005a). The 22 members of FoN’s staff include the administrator, outreach and education coordinator, biologists, and rangers. The 15 members of its
Board represent six villages in the area and key stakeholders, including the local Belize Tourism Industry Association, and the Tour Guide Association, and a community school (Center for Park Management, 2005a).

There are indications that the protection policies and activities of the park are having a positive effect on the resources. Rising population levels for two of the more valuable species of marine life, lobster and conch, provide evidence of the benefit of protection within LBCNP. The catch per hour during a 10-month period (from December 2003 through October 2004) showed a 77 percent differential (6.1 inside vs. 2.2 outside LBCNP) for lobster, and a 207 percent differential (11.2 inside vs. 2.75 outside LBCNP) for conch (Center for Park Management, 2005a).

Most of those living in the surrounding communities once supported themselves through fishing. The nearby Placencia area has the third largest concentration of fishing vessels in Belize (Center for Park Management, 2005a). LBCNP is a no-take zone, meaning that no fishing is allowed in the park, and thus imposes perceived and real impacts on the local fishers, both negative and positive. Local fishers have begun to understand the benefits of the protected area to local fisheries as larger and more valuable fish, lobster, and conch are recruited into areas adjacent to the park due to measurable spillover enhancement.

**4.2.1. Alternative livelihood intervention**

Beginning in the 1980s, tourism began replacing commercial fishing as the dominant economic base. Catches in the area are down, and local fishermen see tourism as a more dependable and lucrative means of support (Center for Park Management, 2005a). To compensate local communities for the perceived loss of income imposed by the presence of the reserve, LBCNP’s alternative livelihood program retrains and certifies local fishers as dive, kayaking and fly-fishing guides. The park also trains and hires them as tour guides and research support for the park (Center for Park Management, 2005a). Some commercial fishers have made a full transition to tourism; others work as fly-fishing guides, dive masters and tour guides during the high tourist season and return to fishing during the slower months. The program helps protect park resources by encouraging local community members to replace what are referred to in the
LBCNP business plan as “extraction industries” with more ecologically responsible livelihoods (Center for Park Management, 2005a).

The alternative livelihood program was well-funded in 2004. According to the business plan, program expense totaled US$10,032 in 2004, almost US$5,000 of which was considered mission-critical, with over US$7,500 identified as necessary to achieve optimal performance. Just under US$10,000 was made available through international NGOs, leaving an optimal-state funding “cushion” of more than US$2,500 (Center for Park Management, 2005a).

4.2.2 Overlapping complementary efforts

User Fees. Park visitation records have been kept since 2002. During that time, visitation has ranged from a low of just over 100 visitors during September 2003 to a high of over 900 recorded during December 2004. Approximately 90 percent of visitors to the park are foreign. There are strong seasonal variations, peaking during the northern hemisphere winter. Visitation dropped when the Forest Department imposed entrance fees in July 2002, but is on the rise now that similar fees have been instituted for neighboring reserves (Center for Park Management, 2005a). As user fees went up, visitation dropped (Center for Park Management, 2005a). This decreased human stress on the ecosystem but also lowered the amount of revenue collected. Whether one interprets this as a gain or a loss for the park, it points out the unavoidable interaction between overlapping tourism-based strategies.

Education. There is evidence in the LBCNP business plan of the park using this crossover effect to its advantage. Examples of complementary activities that support the objectives of the LBCNP’s alternative livelihood initiatives include:

- Holding free community events to educate and strengthen community relations; surveying fishers (both commercial fishermen and tour guides) and their families, and consulting local residents regularly to learn about the needs and perceptions of the community (Center for Park Management, 2005a);
- Teaching students about the importance of protecting the park’s resources, and increasing awareness of how environmental impacts of unsustainable use of marine resources weakens future employment options (Center for Park Management, 2005a).
In addition to educating local residents, the park uses displays, pamphlets and brochures, briefings and guided tours to educate visitors and raise their awareness of local conservation issues. According to the business plan, over US$9,000, approximately 41 percent of the total expenditure in the tourism and recreation functional area, was spent on visitor education and interpretation in 2004.

**Marketing.** The LBCNP business plan mentions the importance of making current, factual information available to visitors through methods of delivery that supplement the interpretation efforts of park staff and tour guides without detracting from the recreational value of the visit. The marketing plan section of the business plan suggests that brochures with contact information about FoN and LBCNP "should be everywhere—in tour operator offices, restaurants, hotel rooms, etc. (Center for Park Management, 2005a p 41)." It recommends that the LBCNP logo appear on boats, vehicles, and staff uniforms. It states that the park should offer weekly educational presentations to visitors at hotels and central locations in Placencia (Center for Park Management, 2005a).

### 4.2.3 Predominance of tourism-based funding mechanisms

The CPM Business Plan for Laughing Bird Caye National Park recommends the following funding mechanisms: user fee program, mooring strategy, adopt-an-acre campaign, voluntary add-ons to hotel and restaurant bills, hotel interpretation program, collection of spare change at airports, Friends of Friends of Nature solicitation, establishment of an endowment fund, merchandising/gift shops, and volunteers/in-kind goods and services program (Center for Park Management, 2005a).

At least half of these options are linked to the spending and behavior patterns of park visitors, and all ten stand to be strengthened in some way by increasing the number of visitors to the area. Some, like entrance fees, rise and fall with visitation levels. The cost of collecting entrance fees was under US$7,000 dollars during 2004, but LBCNP generated a surplus of close to US$2,000 that year. Increasing the level of funding generated by user fees is limited, not by the collection strategy itself, but by the number of visitor that can enter the park without damaging park resources or diminishing the quality of the visitor experience.
The park does not appear to single out one key strategy or mechanism for capturing a share of the tourism market. Rather, it puts forward a suite of funding mechanisms, predominantly tourism based, to collectively fill that role. How each of the is to be carried out is not detailed, but there is clearly a heavy reliance on the tourism industry to close the funding gaps identified in the business plan for the park.

4.2.4 Capturing a share of the tourism market

According to the LBCNP business plan, US$92,787 was spent in 2004 to meet mission-critical resource management and protection responsibilities. US$62,270 funds were made available that year, which generated a mission-critical funding gap of US$30,518 (Center for Park Management, 2005a). Placencia’s tourism industry generates sizeable profits, thus capturing even a small portion of those profits for park use could be a significant step toward closing LBCNP’s funding gap. According to an impact analysis of the park, foreign visitors to LBCNP paid over US$700,000 directly to tour operators in Placencia. The total value of the 6,980 one-day LBCNP visitors to Placencia was more than US$1.5 million for 2004. These profits flowed directly into the local community, a portion going to tour guides, a rare and desirable outcome from an economic development perspective (Center for Park Management, 2005a).

Given its high visitation volume, it appears that the funding challenges for Laughing Bird Caye National Park will be overshadowed by concerns about the long-term state of marine resources and biodiversity within the park (Center for Park Management, 2005a).

4.3.0 SAINT HERMAN’S BLUE HOLE NATIONAL PARK, BELIZE

Saint Herman’s Blue Hole National Park (SHBHNBP) was declared a National Park on December 6, 1986 (Center for Park Management, 2005b). Located only 12 miles southeast of Belize’s capital, Belmopan, this 575-acre area is ecologically significant largely because of its unique karst topography. The park features underground streams; rivers; sinkholes; cenotes, including the “blue hole” from which the park takes its name (photo page 30); and extensive subterranean cave systems. Its heavily wooded forest and high limestone bluffs are home to well over 200 species of birds. The Belize Audubon Society (BAS), the oldest conservation NGO in
Belize, co-manages the park with the Belize’s Forestry Department (Center for Park Management, 2005b). SHBHNP’s mission aims to “Conserve natural and cultural resources for ecosystem values, education, and recreation through collaboration with relevant stakeholders (Center for Park Management, 2005b p 5).”

4.3.1 Alternative livelihood intervention

The park does not have a formalized alternative livelihood program (Center for Park Management, 2005b). There are, however, indications of the possible need for such efforts, at least on an informal basis. The park’s business plan recommends that “park staff conduct training courses to certify guides as Saint Herman’s Blue Hole National Park guides, and only licensed guides should be allowed to lead groups in certain parts of the Park, especially the caves (Center for Park Management, 2005b p 34).”

Though the park’s business plan does not detail who would be targeted, it does imply intent to undertake recruitment and training efforts when it states, “Guide and tour operator licensing will allow BAS and SHBHNP to improve the quality of tours offered to tourists, while at the same time increasing the level of stewardship of the park caves (Center for Park Management, 2005b p 34).” These, in fact, reflect the goals of all alternative livelihood intervention.

4.3.2 Predominance of tourism-based funding mechanisms

Saint Herman’s Blue Hole National Park business plan recommends: user fees, concessions, donations and memberships, adopt-an-acre, voluntary add-ons to hotel and restaurant bills, collect spare change, and donation box (Center for Park Management, 2005b). Five out of the seven funding mechanisms identified in the SHBHNP business plan relate directly to the number of visitors to the park and are thus tourism-based; a sixth mentions “high visitation” as a supporting factor. The business plan’s Scenario Analysis lists visitation and tourism,
including cruise ship, as one of the top opportunity/risk factors determining the park’s financial
security. In scanning the text of the business plan, it appears that almost every page in the 43-
page document contains at least one reference to visitation and/or tourism (Center for Park
Management, 2005b).

4.3.3 Capturing a share of the tourism market

The Impact Analysis of the park’s business plan shows an overall value to Belize realized
from SHBHNP tourists to be approximately US$8 million in 2004. The value of the park to the
local hotels, restaurants, and tour operators is significant. Virtually all non-cruise ship tourist
visiting SHBHNP spend money outside of the park on hotels, meals, tour operator businesses
and incidentals estimated to have brought in an additional US$900,000 that year (Center for Park
Management, 2005b).

The park’s involvement in tour operating activities is described in the business plan as
limited to helping tour operators design and promote tours of the park (Center for Park
Management, 2005b). According to the business plan, “Tourism & Recreation is the functional
area with the greatest gap between current expenditures for operations and what is needed to
reach the mission critical level and optimal states (Center for Park Management, 2005b p 28).”
There is no indication, however, that the Belize Audubon Society is directly involved in the tour-operating business in the park or plans to move in that direction in the future as a means of
addressing that shortfall.

The SHBHNP business plan identifies user fees, entrance fees in particular (the park
reported 10,400 fee-paying visitors in 2004), as having the highest potential for increasing
revenue of any of the funding mechanisms (Center for Park Management, 2005b). The plan
recognizes the need to increase the number of visitors and talks about a strategy to attract more
foreign tourists, especially from the cruise ships (Center for Park Management, 2005b). BAS has
already approached one tour company seeking to bring up to 240 people a day, three days a
week into SHBHNP, with a potential of nearly 14,000 foreign tourists providing additional revenue
of over US$89,000 per year (Center for Park Management, 2005b). The protected area has
budgeted infrastructure improvements to make visits more pleasant and to accommodate large
groups, requiring investment of approximately US$315,000 (Center for Park Management, 2005b). However, the plan only mentions entrance fees as a means of benefiting the park directly and thus recovering some of the costs related to supporting programs and building and maintaining the infrastructure required to manage the increasing numbers of tourists (Center for Park Management, 2005b).

4.3.4 Overlapping complementary efforts

User Fees. Entrance fees are identified in the business plan as having the greatest potential to increase revenue to the park. More than 6,000 foreign visitors and more than 4,000 fee-paying visitors visited the park in 2004, generating revenue to cover 40 percent of the total operating costs of the park (Center for Park Management, 2005b). The business calls for expanding this by reaching out to tour companies that offer trips for cruise ships – it mentions one tour company that could potentially bring nearly 14,000 to the park during one year, adding US$89,000 in revenue. This would require improving infrastructure improvements which are included in the park’s 5-year plan. Management of tourism on this scale would require more guides and park staff. The business plan calls for the park staff to train and license SHBHNP guides to “improve the quality of tours…while at the same time increasing the level of stewardship of the park (Center for Park Management, 2005b p 34).”

Concessions. Very little staff time or money was dedicated to managing concessions in 2004, and there are only two concessionaires in the park at this time. The business plan recommends increasing the number of concessionaires from local community members in order to lighten the work load of park staff and generate revenue (Center for Park Management, 2005b).

Education. SHBHNP’s community development and outreach expenditures totaled over US$10,000 for 2004, 60 percent of which (more than US$6,000) went toward the formal education program, mostly to pay for warden staff time and school buses to transport students to the park. The formal education program aims to increase environmental knowledge, awareness and stewardship in future generations of Belizeans (Center for Park Management, 2005b). Visitor education at SHBHNP involves interaction between wardens and visitors, and interpretive signs
and displays. Despite reporting a shortfall of over US$9,000 to reach mission-critical state, the business plan calls for improving the quality and number of interpretive signs (Center for Park Management, 2005b).

Voluntary add-ons. The business plan for Saint Herman’s Blue Hole National Park acknowledges the interaction between strategies and the potential for mutual enhancement when it mentions potential non-monetary benefits to the Belize Audubon Society that can come from a carefully designed and implemented funding strategy. Specifically, the business plan states that the voluntary add-ons to hotel and restaurant bills program would be of limited use for the park on its own, but could work well for the organization overall (Center for Park Management, 2005b).

Marketing. The marketing plan talks about the need to identify and market the park’s particular niche. It recommends that SHBHNP help tour operators sell guided trips to tourists in order to demonstrate the economic viability of such trips, and make them aware of the benefits provided by the park’s infrastructure. The marketing plan stresses the need for cooperation with the tour operators. It suggests that promotional brochures be designed for and distributed to both visitors and tour guides, and that letters be sent to tour operators to inform them about the unique features of the park and the tour-guiding opportunities that are available there. The marketing plan recommends development of two sets of brochures and posters—one for donors and stakeholders, and the other for tourists and tour operators (Center for Park Management, 2005b).
5.0 MAJOR CASE STUDY:
PORT HONDURAS MARINE RESERVE, BELIZE AND THE
TOLEDO INSTITUTE FOR DEVELOPMENT AND ENVIRONMENT (TIDE)

5.1 HISTORIC AND ECOLOGICAL CONTEXT

5.1.1 Port Honduras Marine Reserve (PHMR)

Port Honduras is linked to the Belizean coastal waters that encompass over 1,000 cayes, three atolls, and the largest coral reef in the western hemisphere, the Meso American Reef (Sobel and Dahlgren, 2004). Port Honduras was declared a reserve in January, 2000. The Port Honduras Marine Reserve (PHMR) is located offshore from the Toledo District at the southernmost tip of Belize (PHMR, 2005) (map page 36, photo right). The District’s rainforests, watersheds, savannas, lagoons, mangroves, cayes, and reefs offer the greatest range of natural biodiversity in the country (PHMR, 2005). They are home to numerous species of flora and fauna including lobsters, conch, commercial fish stock, parrots, orchids, and mahogany as well as the endangered yellow-headed parrot, the Hawksbill turtle, and a small colony of West Indian manatee (PHMR, 2005). The Maya Mountain Marine Corridor (MMMC) located here links the ridge of the Maya Mountains with the Belize Barrier Reef and the Caribbean Basin. It covers almost one million acres of terrestrial forest and 1,000 square miles of ocean, and inspires a “ridges to reef” approach to conservation in the area (PHMR, 2005). The MMMC is rich in biodiversity, containing approximately 112 fish species, 95 reptile species, 90 mammal species,
and 32 amphibian species. Giant anteaters, tapirs, howler and spider monkeys and five species of large cats—jaguars, puma, ocelot, jaguarundí, and margay, are among the at-risk mammals. Of the approximately 440 species of trees and 3,000 species of plants identified in the corridor, several are over-exploited. In particular danger are mahogany, Spanish cedar, and Xate—a forest palm coveted by florists in Europe and the United States (The Nature Conservancy, 2002).

PHMR is co-managed by the Toledo Institute for Development and Environment (TIDE) and the Government of Belize (PHMR, 2005). In 2000, TIDE established a ranger station on Abalone Caye, a small island once known as a prime slaughtering site for manatees (photos right). The reserve’s manager, head ranger, three full-time rangers, and temporary rangers use the island as a base while conducting regular patrols. Visitors to the reserve are expected to stop at the ranger station to register and pay park user fees.

PHMR participates with TIDE in the management of the reserve and other adjunct programs such as research, education, community outreach, visitor orientation, and alternative livelihoods (PHMR, 2005).
5.1.2 Toledo Institute for Development and Environment (TIDE)

TIDE is a non-governmental organization (NGO) formed in 1997 by a grassroots effort to address the growing environmental threats such as manatee poaching, illegal fishing, illegal logging, destructive farming, and encroaching development observed in the area (TIDE, 2003). TIDE is located in Punta Gorda Town, referred to locally as PG, the capitol of Belize’s Toledo District. One of TIDE’s core goals is to lead the development of responsible tourism and other environmentally sustainable economic alternatives in Toledo by providing training and support to local residents (TIDE, 2000). TIDE maintains a close relationship with the local communities, and according to its website, is one of the most respected and influential conservation groups operating in the District (TIDE, 2006). TIDE began as an informal group of volunteers and has evolved into a dynamic organization with an executive director and 30 paid staff, as well as a board of directors made up of individuals from a wide range of backgrounds (PHMR, 2005 p 32). TIDE works in seven programmatic areas to:

- Co-manage the Port Honduras Marine Reserve with the Government of Belize - patrol and maintain the protected area;
Co-manage Payne’s Creek National Park with the Government of Belize - patrol and maintain the park;

Implement the Private Lands Initiative - acquire lands to be held in perpetuity for the people of Belize;

Implement the Freshwater Initiative – monitor and conduct research related to freshwater sources in the Maya Mountain Marine Area Transect;

Oversee the Education and Community Outreach Programs – carry out the scholarship program, swimming day camp and junior ranger camp, and radio program;

Participate in the Tri-National Alliance for the Conservation of the Gulf of Honduras (TRIGOH) member – join the cooperative effort between organizations in Belize, Guatemala, and Honduras to conserve the Gulf of Honduras and promote regional fisheries management;

Support and manage TIDE Tours – promote local-level ecotourism to convey the economic benefits of tourism to TIDE and Toledo’s communities (TIDE, 2006; TIDE, 2003).

The Toledo District is composed of a mix of Mayan, Garifuna, Creole, and East Indian cultures. With an unemployment rate of almost 50 percent, it is Belize’s poorest and least developed region. Two villages, Monkey River (population 220) and Punta Negra (population 20), are located within the reserve (Heyman and Graham, 2000). The residents of these villages depend on the reserve for their livelihoods, being mostly commercial fishers or fly-fishing and tour guides (PHMR, 2005). In 2000, there were an estimated 16 boat captains and 49 fishers represented in these two communities (Heyman and Graham, 2000).
5.2.0 PHMR/TIDE ALTERNATIVE LIVELIHOOD INTERVENTION

5.2.1 Role and impact of MPAs in Belize

The Port Honduras Marine Reserve is linked to a series of marine protected areas (MPAs) established by the Government of Belize under its Coastal Zone Management Strategy considered by some to be one of the most advanced and visionary systems of its kind in the world (Sobel and Dahlgren, 2004). In 2002, the network of thirteen MPAs already established in Belize was strengthened by additional legislation that created eleven new no-take marine reserves to protect known spawning aggregation sites for Nassau grouper and other reef fish. Belize’s MPAs are part of a system of more than 100 protected areas scattered throughout the Caribbean Basin (see Figure 2).

MPAs and no-take reserves are established in Belize to achieve multiple objectives that typically include tourism management, fisheries management, and protection of biodiversity (Sobel and Dahlgren, 2004). Tourism management is particularly important in Belize, a country where marine-oriented tourism is a major source of foreign exchange and where “the diversity and comparatively healthy condition of reefs and other marine ecosystems are of recognized international importance (Sobel and Dahlgren, 2004 p 287-288).”

One of the most effective MPA management strategies is the creation of economic alternatives for fishers. While most fishers understand the long-term role of MPAs, they are more likely to support them when offered short-term alternative livelihood options (Sobel and Dahlgren, 2004). As mentioned earlier in this paper, TIDE and FON are two Belizean NGOs that have

Figure 2. More than 100 Caribbean protected areas represent the region-wide efforts to conserve marine resources.
established training initiatives for fishers as part of their conservation programs (Sobel and Dahlgren, 2004).

Well over 200,000 hectares of marine area are protected in Belize, but only about eight percent of that total are strict no-take zones. Data are insufficient to demonstrate conclusively that MPAs contribute significantly to sustainable management of Belizean fisheries and that strict no-take zones are essential. Several potential ecological benefits are indicated, however (Sobel and Dahlgren, 2004).

There is evidence that MPAs in Belize that are protected from fishing enhance fish stocks and improve the abundance, size, and reproductive output of certain species of fish, conch and lobster species (Sobel and Dahlgren, 2004). Most efforts to scientifically determine the effectiveness of MPAs in Belize focus on the ability of no-take zones to enhance commercial fish stocks. Less effort has been made to measure the impact of MPAs on other aspects of marine conservation, such as the health of ecosystem function. There is sufficient evidence, however, to support the conclusion that preserving the habitats—mangroves, sea grasses and others, that are essential to juvenile commercial species, can be expected to increase populations (Sobel and Dahlgren, 2004).

In addition, MPAs in Belize have been shown to support conservation compliance and enforcement of fisheries regulations. There is circumstantial evidence that MPAs adjacent to national borders such as PHMR play an important role in reducing illegal fishing by Hondurans and Guatemalans (Maheia interview, 2006). Over time, research may confirm other benefits. For example, there is anecdotal evidence that MPAs discourage the proliferation of the drug trade in patrolled areas. Because of their focus on a single geographic area, reserve staff may form closer relationships with local fishers and be able to educate and influence them on responsible environmental practices.

The educational and tourism function of MPAs is broadly recognized. Their establishment involves organizing public forums that are attended by members of the fishing community whose livelihoods are affected by the reserve. Fishers usually sit as members of the advisory boards of MPAs and help develop management policy. It is safe to assume that in the process, these
individuals and the fishing community they represent become informed about the purpose of the reserve. Fishers who assist in the development of fishery management strategies are likely to develop a greater willingness to obey management regulations once such regulations are established (Sobel and Dahlgren, 2004).

More long-term monitoring and data-gathering programs are needed to conclusively demonstrate that there are real and potential benefits of the MPA system established in coastal Belize (Sobel and Dahlgren, 2004), including showing definitively that MPA managers can decrease fishing pressure by providing alternative sources of income.

### 5.2.2 Fishing and alternative employment in the Gulf of Honduras

The Gulf of Honduras provides critical habitat for most if not all of the commercial and sport-fishing fish species (Heyman and Graham, 2000). Total landings from the Gulf of Honduras in 2000 were estimated at over 14 million pounds with a value of approximately US$11.5 million (Heyman and Graham, 2000; Sobel and Dahlgren, 2004). Four percent of the landings and eight percent of the value for the Gulf of Honduras—just over US$1 million, were attributed to Belize that year (Heyman and Graham, 2000).

In total, the fishing industry in Belize involves about 800 boats, both sailing and motorized, and employs from 2,000 to 3,000 fishers (Sobel and Dahlgren, 2004). Most fishers are members of one of the five fishing cooperatives that purchase, process, and export their catch. Fisheries make up about one-third of Belize’s foreign exchange earnings (Sobel and Dahlgren, 2004). Lobster and conch are by far the most lucrative markets for fishers in southern Belize. The remainder of Belize’s commercial catch is made up of fin fish species such as snappers, mackerel, jacks, and barracuda (Heyman and Graham, 2000). PHMR is indicated as an important area for juvenile lobster and conch—lobsters bearing eggs are often captured within the northern areas of PHMR. Tarpon, snook, bonefish, and permit are all highly prized by fly-fishing sport anglers, and all of these species are found in PHMR. Jacks, kingfish barracuda, and snappers are also available in the reserve (Heyman and Graham, 2000).

According to a survey of 37 boat captains and 87 fishers in 2000, the drop hand line is the preferred gear of 61 percent of artisanal fishers in southern Belize. Other fishing gears used
include diving (11 percent), seine nets (7 percent), tow hand line (6 percent), long lines (6 percent), gill nets (5 percent), and traps (4 percent). A few fishers free dive for conch and lobster, and several also use fish traps and lobster nets (Heyman and Graham, 2000). The fishers interviewed believe that hook and line fishing is the most sustainable fishing gear available (Heyman and Graham, 2000). High quality freshly hand-caught fish sold directly to restaurants are of higher value than net-caught fish which tend to be less fresh and damaged by the gear.

Belizean fishers have observed declines in fishing stock since the 1990s. They attribute these declines to: overfishing, including overfishing of juveniles and females with roe; smuggling; the use of destructive gear such as gill nets; and limited enforcement of existing regulations (Heyman and Graham, 2000). Gill nets and lobster nets are extremely wasteful (only about two-thirds of every catch makes it to market) and destructive to marine habitats. Shrimp trawler nets are also very destructive to bottom habitat such as sea grass beds and reefs (Heyman and Graham, 2000). Most of the problematic gear found in PHMR is brought in by immigrants arriving from Guatemala and Honduras where gill nets are popular (TIDE, 2000).

The steady decrease in fisheries resources presents major problems for small-scale or artisanal fishers because they are often the primary or sole source of income and protein for themselves and their families (Heyman and Graham, 2000). Local fishers must now travel great distances (an average of over 50 km) away from their homes to find productive fishing and to market their catch. Rising fuel prices (US$4.57 per gallon for diesel in PG in August, 2005) takes a big bite out of their already meager profits. In addition, the high cost of purchasing fiberglass skiffs and engines of choice (approximately US$4,000 and US$5,000 respectively) coupled with expenses related to maintenance, licensing, and marketing of product (Heyman and Graham, 2000), make it increasingly difficult to make ends meet as a full-time fisher.

Of the 124 fishermen interviewed in 2000, only 14 were full-time fishermen. Belizean fishers often switch between alternative occupations to maximize their incomes. During lobster season, traps are pulled every four days. Certified guides often take guiding jobs, allowing them to pull lobster traps in their spare time (Heyman and Graham, 2000). Fishers in southern Belize are most likely to consider alternative livelihoods that fall within the tourism and sport-fishing
industry. Sports fishing typically includes fly fishing, spin casting, trolling, and droplining. Kayak guiding is a water-based alternative to fishing that taps into the birdwatching tourism market which is also popular (Heyman and Graham, 2000).

In 2000, over 80 percent of fishers in the area were over 30 years old and approximately 70 percent of those surveyed had more than ten years fishing experience, although many younger men continue to enter the market (Heyman and Graham, 2000). A person who is knowledgeable about the sea can make more money as a catch-and-release fly fishing guide for permit, snook, bonefish, and tarpon than as a fisher for the local market. Catch-and-release guide jobs are highly valued because they are the most challenging and highest paid (over US$200 per day) in the sports fishing industry. Catch-and-release sport fishing brings the added value of allowing a fish to theoretically be caught more than once (Heyman and Graham, 2000).

But Belizeans are not the only ones fishing these waters. The Port of Honduras is shared by the people of Mexico, Guatemala, Honduras and Belize. The population of Belize’s southern coast is estimated to total approximately 5,000 people, 4,500 of which live in PG (Heyman and Graham, 2000). The number of people living along the Guatemalan and Honduran Atlantic coasts is estimated to be more than 250,000 (Heyman and Graham, 2000). Despite observed declines in fishing stock, the number of artisanal fishers are increasing throughout the region. Belize has the fewest people, the largest portion of reef and mangroves, and the smallest portion of the landings of all the countries bordering the Gulf of Honduras. Increased enforcement and harmonization of fisheries policy would benefit Belizean fishers (Heyman and Graham, 2000). This puts great pressure on PHMR which is located only 45 minutes by boat from Guatemala (Maheia interview, February 2006).

5.2.3 PHMR objectives and program activities

Since its inception, TIDE has worked “to end unsustainable fishing, hunting and farming through replacement with more sustainable and financially rewarding economic alternatives (TIDE, 2000 p 4).” PHMR works with TIDE to implement an alternative livelihood program (PHMR, 2005) that encourages fishers to replace gill nets, lobster nets, long lines, and other destructive gear with more environmentally sensitive technologies; and to supplement or replace
full-time fishing practices with alternative means of employment. Some fishers have transitioned to tourism-based occupations as kayaking, fly-fishing, and tour guides; while others have entered conservation-based occupations, working as rangers or research support for PHMR (Heyman and Graham, 2000). In 2005, as part of its Alternative Livelihood Program, PHMR:

- Trained six fishermen and a tour guide as emergency first aid responders, rescue divers, and dive masters with the support of the United Nations Development Programme (UNDP);
- Met with Monkey River village to discuss the alternative livelihood initiatives being offered through the Caribbean Regional Environmental Program (CREP);
- Met with UNDP/Monkey River Tour Guide Association on a lobster shed project proposal to be funded by UNDP;
- Met with local tour guides to discuss visitor fees and ranger-guide cooperative activities;
- Conducted bird watching training;
- Conducted law enforcement and special constable training through the Punta Gorda Police Department; and
- Attended the Tri-National Rangers Training/Exchange Program held in Belize, Guatemala, and Honduras (PHMR, 2005).

To build PHMR personnel capacity, the following training courses are planned for 2006: protected areas management, open water diving, dive master, boat handling, special constable, Spanish language, law enforcement, team building and leadership courses for rangers (TIDE, 2005).

5.2.4 Evidence of results

Although it is extremely difficult to come up with quantitative scientifically-based evidence to support the claim that alternative livelihood intervention works, the anecdotal evidence, based on personal observation and interaction with local stakeholders, is encouraging. TIDE makes the following claims:
Fishermen who once overfished the local waters are now employed as ecotourism guides, dive guides, and rangers who patrol the protected areas and provide environmental education to surrounding communities.

Fly-fishing guide training and the scuba diving guide training are particularly effective (Sobel and Dahlgren, 2004). The fly-fishing guide program has improved some personal income levels. Local Belizeans who previously earned less than US$4,000 annually as net fishermen are now bringing in up to US$15,000 per year as fly-fishing guides. This is particularly significant in a country where 23 percent of working adults earn less than US$700 annually (Heyman and Graham, 2000);

The Fishing Coop established by TIDE continues to function after five years, making it the longest-lasting fishing coop in the District (Maheia interview, July 2006);

According to Wil Maheia, 80 percent of all tourism activities in the District benefit in some way from TIDE’s presence, and almost every guide employed in the sport fishing industry in the District of Toledo was at one time a net fisherman (Maheia interviews, February and July 2006); and

At the request of other conservation NGOs in the region, TIDE traveled to Costa Rica, Honduras, and Guatemala to help set up alternative livelihood programs there (PHMR, 2003).

There is science-based evidence as well that reflects the impact of PHMR’s management as a whole, which may be seen as a partial indication of the effectiveness of its alternative livelihood program. Monitoring and research are an important component of PHMR/TIDE’s management efforts. Recent data are encouraging. Manatee slaughters have almost disappeared since the program was implemented (PHMR, 2005). During the 910 patrols in 2005, PHMR rangers made 32 arrests and confiscated 18 gill nets, significantly less than in 2004. There were no long line arrests (PHMR, 2005). The assumption is that fewer or no arrests and confiscation incidents indicate fewer gill net fishers active in the area. The reduction in the number of destructive gear and practices recorded in the reserve can be attributed to patrolling and
enforcement activities, but might also be seen as an indication that PHMR’s alternative livelihood program is on the right track.

Recent monitoring suggests the need for continued vigilance and further study, however. According to lobster surveys conducted at 6-month intervals in 2005, the mean carapace length for lobsters surveyed was reduced and numbers of lobsters and conch were significantly down (PHMR, 2005). There could be several explanations for this beyond a failure of the alternative livelihood intervention, in this case involving resumption of over-harvesting of lobsters within the reserve. Monitoring, patrolling, and enforcement continue to be important.

5.2.5 Overlapping complementary efforts

Many TIDE policies and programs overlap and are designed to complement one another. Including several that support the alternative livelihood program. Here briefly are just a few:

*Hiring policy.* TIDE hires mostly young Belizeans as rangers, researchers, and other staff. Many TIDE employees previously hunted and fished in the areas they now help to protect, and have first-hand knowledge of the ecosystems and their significance to the surrounding communities (TIDE, 2000).

*Paynes Creek National Park.* TIDE protects local forests and wildlife using alternative livelihood interventions similar to those established for PHMR in Paynes Creek National Park - trains hunters, loggers and farmers to become kayaking and tour guides (TIDE, 2005).

*Community Ranger Program.* TIDE/PHMR is continuing the Community Ranger Program that trains and engages community members in identifying and reporting illegal activity. As of October, 2005, PHMR/TIDE had trained 14 community rangers (TIDE, 2004).

*Scholarship funds.* TIDE offers scholarships to children whose parents agree to stop using unsustainable fishing and farming methods.

*Net-exchange program.* TIDE allows fishermen to trade gill nets for more environmentally sensitive equipment (TIDE, 2000).

*Education.* Presentations and field trips were carried out at twenty schools during 2004. Those that targeted primary schools focused on the West Indian manatee. The secondary-level presentations dealt with coral reefs. The tertiary curriculum that targeted the University of Belize
Natural Resource Management Program Toledo Center included units on: the purpose of protection, basic management techniques, conflicts in management, research and monitoring, zones within the reserve, habitats within the reserve, etc. All presentations were followed by field trips to the reserve (PHMR, 2005). PHMR staff also took 50 Belizean students from the 4-H student group outside of the Toledo District to Punta Negra village where they helped clean up the beach and listened to presentations (PHMR, 2005).

*Community outreach.* PHMR/TIDE uses a wide variety of tactics and communication channels to reach local fishers and their communities. One example among many is the “Rising TIDE” radio show, now in its eighth season, that now reaches a national audience. The show is broadcast every Monday night from 7-8 pm, and is the longest running radio program in the District (PHMR, 2005).

*User Fees.* PHMR sold 960 tickets to non-Belizean visitors to the reserve, collecting BZ$19,000 (US$9,500) during the first eleven months of the nation-wide entrance fee program (PHMR, 2005).

TIDE Tours stands out as not only overlapping and complementary, but as essential to the success of PHMR’s alternative livelihood program. It is likely that TIDE Tours will be evaluated as a key tourism-based funding mechanism for PHMR/TIDE during the CPM business planning process scheduled to take place later this summer.

5.2.6 *Predominance of tourism-based funding mechanisms*

The business planning market analysis and screening process have yet to take place for PHMR/TIDE, so no list of funding mechanisms exists at this time. However, TIDE carries out a variety of innovative development and funding activities, many of which are similar to those listed in the business plans for Laughing Bird Caye National Park (Center for Park Management 2005a) and Saint Herman’s Blue Hole National Park (Center for Park Management, 2005b). It is likely that similar options will be included in the business plan for PHMR/TIDE, and that most of them will link closely to tourism.
5.2.7 Potential of TIDE Tours

The leadership at TIDE has long understood the opportunities and risks associated with tourism. In 2000, TIDE got into the tour operating business by establishing TIDE Tours, a subsidiary business with the potential to leverage private sector resources to help fund environmental programs (TIDE, 2000).

TIDE Tours operates as a separate entity out of a centrally located office in Punta Gorda Town, a few blocks from the TIDE office. It offers tour packages and merchandise to tourists, books guide trips, and makes other in-bound travel arrangements on demand. Profits realized by TIDE Tours are to flow back to TIDE. So far, however, TIDE Tours has struggled to become profitable, and it even lost money in 2005. Nonetheless, Wil Maheia, Executive Director of TIDE, and others believe that a tour-operating business has great potential as a means of funding TIDE programs and creating local jobs.

It is likely that TIDE Tours will emerge as a key funding mechanism and become the focus of a separate business planning process following the initial CPM business planning process later this summer. Among other things, a separate business plan for TIDE Tours would develop goals for the business, and define criteria for measuring success in reaching those goals.

Assuming that PHMR and TIDE continue to rely on tourism-based alternative livelihood intervention as a key element of their conservation efforts, there will be a need for developing strategies that:

- Promote sustainable tourism;
- Create access to tour guide jobs;
- Support interacting elements of multiple tourism-based strategies; and
- Close TIDE funding gaps.

Whether TIDE Tours will be that mechanism is for others to decide.
6.0 DISCUSSION AND RECOMMENDATIONS

6.1.0 WHAT ALREADY WORKS FOR PHMR AND TIDE

The objectives of the PHMR alternative livelihood program are to 1) decrease fishing pressure on the natural resources within the Port Honduras Marine Reserve, and 2) support economic development in the Toledo District, especially in Punta Gorda and other surrounding communities. To accomplish this, PHMR management trains, certifies and facilitates the employment of local fishers as tourism-based guides, and as reserve and research support staff. The review of literature and supporting case studies suggest several ways that PHMR and TIDE create conditions for success of their alternative livelihood program. They do so by 1) providing strong incentives for the targeted fishers to adopt new fishing technologies and practices, and 2) coordinating the alternative livelihood program with overlapping complementary efforts such as community outreach and environmental education. Additionally, alternative livelihood interventions initiated by PHMR and TIDE are more likely to achieve their objectives when designed and implemented to:

- Target efforts;
- Encourage modification rather than abandonment of livelihood practices for a majority of the targeted fishers;
- Encourage occupational diversity within targeted households which can act as informal insurance against economic downturns and maximizes income;
- Demonstrate the linkages between resource-based livelihoods and the long-term viability of PHMR marine resources;
- Build on local skills, resources, and cultural knowledge, and maintain an occupational connection with the sea;
- Work with established management programs that effectively protect and preserve PHMR resources through patrolling and enforcement activities, and attempt to evaluate programmatic impact through monitoring and research activities; and
- Evaluate and measure success.
In as much as the alternative livelihood program is tourism-dependent, PHMR and TIDE also create conditions for success when they:

- Promote sustainable tourism in the process of facilitating access to desirable guide jobs for TIDE-trained fishers; and
- Support multiple tourism-based funding mechanisms to contribute to the financial security of TIDE.

All of the above suggest a central role for TIDE Tours.

It is important to note that not one of the alternative livelihood programs described in the review of literature and case studies has achieved unqualified success or fully realized their respective missions. Alternative livelihood intervention clearly should not be viewed as a quick fix, but rather as a strategy that demands long-term planning and commitment. Alternative livelihood initiatives are not silver bullets, but they can be used in concert with other strategies to achieve results in the continuing search for resource-dependant workforce solutions.

6.2.0 CPM BUSINESS PLAN FOR PHMR/TIDE

6.2.1 Status of the CPM business planning process

In early March, 2006, Scott Edwards of CPM met with the business planning contact for TIDE, Darius Avila. Together, they consulted with TIDE staff and other stakeholders to lay the groundwork for a Belize Business Planning Initiative directed at PHMR and TIDE to take place in PG. The process was schedule to begin almost immediately, but a dramatic development intervened. Just two months earlier, Wil Maheia, founder and director of TIDE, announced his intentions to leave TIDE to run for election to Belize's Parliament in 2007 (Maheia interview, February 2006). A search committee has been tasked to select an acting director to oversee the transition to a new director (Edwards interview, 2006).

It was decided that the CPM business planning process should be postponed until such time as the acting director is in place, which is estimated to happen by late August or early September, 2006. Those who are directly involved in the CPM business planning process agree that the acting director and search committee should be included in the business planning
process, and that the resulting business plan will help guide the selection process. It is essential that the new director and staff shape the business plan once they come on board so that they eventually buy into and actively engage in its implementation.

As difficult as it will be for TIDE and PHMR to lose day-to-day access to the vision, energy and charisma of Wil Maheia, the timing of his exit and the fact that it coincides with a robust business planning process provides great opportunities as well.

### 6.2.2 Value of CPM business planning process

The CPM business plan for PHMR/TIDE can be used as a tool to reexamine the goals and objectives of the organization and reevaluate existing initiatives, including the alternative livelihood program, in light of those objectives. It can influence the elimination or repositioning of existing strategies, and create new suites of funding mechanisms. The business planning process has the potential to generate practical tools - implementation strategies aimed at moving the business plan off the shelf and into the community, as well as marketing and communication plans directed at increasing the effectiveness of key strategies.

Among other things, the CPM business planning process can screen and evaluate options to reflect the opportunities and risks associated with tourism. It can help TIDE create a diverse portfolio of funding mechanisms, some but not all of which are tourism-based. Because donors have long been and will continue to be key targets of TIDE’s funding strategies, the business plan can also help identify options that reach beyond the donor community to the private sector.

The business planning process presents the opportunity to single out one mechanism within the suite of funding options that has the potential to do it all--both provide tour guide jobs for PHMR/TIDE’s alternative livelihood program, and help close the funding gap for TIDE. While TIDE Tours is seen by some to have great promise along those lines, it is unlikely that it or any other funding mechanism will emerge as a magic bullet. This small tour-operating business does, however, remain an innovative and intriguing approach to addressing funding and programmatic challenges. Should it survive the scrutiny of a rigorous market analysis and feasibility
assessment, TIDE Tours would benefit from its own business planning process and implementation strategy.

**Recommendation:** That the SWOT analysis component of the CPM business planning process be used to determine PHMR/TIDE’s level of dependence on tourism, and identify the opportunities and risks that accompany such dependence; that the business planning process include “tourism-likage” and “portfolio diversity” as criteria to be included in the screening and feasibility components.

**Recommendation:** That the CPM business planning process be used to evaluate TIDE Tours as a key component of a suite of funding mechanisms developed for PHMR/TIDE, and that it determine the level and nature of TIDE Tour’s potential contribution to the PHMR alternative livelihood program and other tourism-based strategies; that a separate CPM business planning process be carried out for TIDE Tours, and that a detailed marketing plan and communication strategy be developed as part of that process.

**Recommendation:** that the business planning team at the Center for Park Management and The Nature Conservancy convene a group of experts and practitioners to brainstorm around issues related to tourism-based funding mechanisms – their predominance in the business plans developed for parks and protected areas in Belize and throughout the region, and the role of tourism marketing in supporting them and addressing complementarity issues.

### 6.3.0 MARKETING PLAN AND COMMUNICATION STRATEGY

#### 6.3.1 Defining terms and establishing a focus

Along with an implementation strategy, a “communication strategy” and “marketing plan” have been mentioned consistently by key stakeholders as important to the successful implementation of the PHMR/TIDE business plan (Edwards interview, 2006; Flores interview, 2006; Maheia interview, 2006). There is no consensus, however, on just what is meant by these terms or what the specific focus and scope of the product would be. As envisioned by various supporters, the communication strategy or marketing plan would be directed at either: 1) the
Recommendation: That the agenda of the business planning process for PHMR/TIDE include a session on the value and feasibility of developing and implementing a communication strategy and/or marketing plan; that the discussion begin with a definition of terms, a comparison of the application and value added of such products, and a delineation of the entity or entities on which the product is to be focused. That, if sufficient interest is indicated, the discussion should also roughly define the scope, process, time table, and budget/funding sources for the effort, and designate a point person who is responsible for following up on the actions indicated.

6.3.2 Marketing plan for TIDE Tours: links guides, tourists, and TIDE

Based on the review of literature related to alternative livelihood intervention, incentives need to be strong enough to drive voluntary change. In the context of the PHMR alternative livelihood program, the strongest incentives take the form of access to desirable guide jobs for trained/certified “graduates” of the PHMR alternative livelihood program. Ideally, such jobs have demonstrable potential to raise income; lower risk (equal or higher dependability; predictability); improve working conditions (hours, equipment, etc.); maintain connection with local culture and the sea; raise status in the community; and increase opportunities for personal growth.

TIDE Tours is positioned to facilitate access to such jobs by increasing demand for guided-tour packages within the inbound tourism market in PG, and by connecting PHMR-trained guides with tourists interested in those packages. Interviews with stakeholders in PG reveal that, once trained and licensed, local guides sometimes bypass TIDE Tours, preferring to solicit clients on their own or to book through other tour operators. A marketing plan would specify ways to increase incentives for trainees to continue their relationship with TIDE Tours beyond the training and certification period. If effectively implemented, it would strengthen the connection between TIDE Tours, the guides and the tourists. It would also position TIDE Tours to capture a
percentage of the financial gains resulting from guide-tourist transactions in order to cover the expenses related to conducting a tour-operator business and become profitable. A marketing plan would provide a detailed action plan, time table, benchmarks for measuring progress, and means of evaluating success aimed at achieving these and other objectives.

**Recommendation:** Develop a detailed marketing plan aimed specifically at TIDE Tours.

**Recommendation:** Target marketing efforts to increase sustainable nature-based tourism in PG in a way that positions TIDE Tours as the link between “graduates” of the PHMR alternative livelihood program and inbound nature-based tourists in PG.

**Recommendation:** Develop a strategy to build trust among the “graduate” tour guides and strengthen the financial relationship between TIDE Tours and the guides in the booking process; engage local residents by conducting community outreach and formal conservation education activities, and organizing regular free community events (meetings, local festivals, sports events, etc.).

**Recommendation:** Take the following additional steps:

- Integrate TIDE Tours with TIDE’s Development Program;
- Provide incentives to the Tourism Coordinator and his/her assistants, the chief point persons for TIDE Tours, to reward them for increases in bookings/profitability;
- Maintain employee morale by recognizing professional achievement and facilitating interaction between TIDE Tours and PHMR/TIDE;
- Polish up TIDE Tours’ image - establish an appropriate balance between the relaxed style of the local culture and the need for reliability and professionalism;
- Define TIDE Tours’ unique niche (branding) in the market;
- Conduct a marketing survey of tourism in PG--compare pricing, value, and product;
- Use volunteers and in-kind contributions where possible to boost TIDE Tours profits;
- Conduct a SWOT analysis of PG as a tourist destination; consult with tourism professionals; turn negatives into positives; and
- Promote quality control throughout.
6.3.3 Marketing plan for TIDE Tours: promotes nature-based tourism

A core element of TIDE’s mission is to lead the promotion of sustainable tourism in PG and the surrounding area. There is evidence that this can be accomplished through the combined efforts of PHMR’s alternative livelihood program and TIDE Tours. TIDE Tours designs, promotes and markets responsible nature-based tour packages. TIDE Tours and its guides epitomize the small local entrepreneurs favored by sustainable tourists. TIDE Tours, together with PHMR/TIDE’s alternative livelihood program, supports local nature-based ecotourism by providing knowledgeable, well-trained guides, as well as the rangers and research assistants to monitor and manage the impact of tourism activities in the reserve.

All TIDE Tours staff and trainees are taught good stewardship practices, and trained to pass that knowledge on to the tourists with whom they interact. Guides and rangers teach, monitor, and enforce such environmentally responsible practices as: catch-and-release angling and fly fishing techniques; sustainable lobster and conch harvesting; protection of endangered species (manatee, sea turtles, birds); and adherence to ecosystem-friendly mooring, access, and speed limit policies for boats.

Most forms of mass tourism have not reached PG yet due to its geographic location and other factors, but cruise ships are now venturing into the area. TIDE has long avoided any association with mass tourism, including the cruise ship industry, but it is only a matter of time before their presence will demand attention.

**Recommendation:** Monitor and assess the environmental impact of the guided tour experience as practiced by PHMR alternative livelihood program “graduates” within the reserve to verify training effectiveness; provide feedback to all involved and reinforce successes.

**Recommendation:** Encourage interaction between tourists and the local experience - create tour packages that, while they may not burst the “ecotourism bubble,” at least make it more porous and transparent.

**Recommendation:** Develop a cruise ship strategy that investigates ways to interact and influence the industry without compromising TIDE Tours’ commitment to sustainable tourism; closely monitor the effectiveness of attempts by others to manage these ships
during their visits to the area; and measure the impact of the cruise ship industry on PHMR, TIDE, TIDE Tours, and the local economy.

**Recommendation:** Coordinate overlapping tourism-based strategies, for example: use the collection of user fees at the Abalone Caye Ranger as an opportunity to conduct surveys, raise awareness, market TIDE Tours, offer services (tours of station, view from turret, restroom facilities, sheltered picnic tables), and PHRM/TIDE merchandise.

**Recommendation:** Ensure safe and pleasurable TIDE Tours experience for both tourists and guides by continuing to: 1) make safety a priority – promote safe practices, and require that guides carry first aid kits and know how to use them; and 2) improve the quality of the amenities provided such as bathroom facilities, boats, gear, and provisions (cushions, ponchos, sun roofs, snacks and drinks, sun screen, bug repellant, towels, etc.) during extended open water tours as appropriate.

**Recommendation:** Lead efforts to build trust among other stakeholders in the local tourism industry; build partnerships and alliances with tourism business in PG to promote, monitor and manage sustainable nature-based tourism in the area – stakeholders include hotels, resorts, restaurants, taxi drivers, and fellow tour operators and tour guides.

**Recommendation:** Convene meetings to discover common values, goals, interests and build trust among a broad range of stakeholders including environmentalists, researchers, other conservation organizations, academic institutions, local tourism businesses, tour guides, large commercial interests (cruise ships, sports equipment industry, etc.), and major donors.

**Recommendation:** Take the following additional steps:

- Share success stories and lessons learned with other tour-operators – network;
- Work with the tourism industry in PG to balance the needs and preferences of local community with those of the visitors to PG;
- Expand the scope of tourism in PG through collaboration and partnerships;
- Conduct a SWOT analysis of PG as a tourist destination; turn negatives into positives;
- Consult with tourism professionals; and
- Work with diverse members of the community to make the PG a good place to live.
7.0 SUMMARY AND CONCLUSION

Alternative livelihood interventions work under the right set of circumstances. This paper demonstrates that where there are strong incentives for occupational change and collaborative, participatory efforts to direct that change toward an environmentally sustainable solution, success is attainable. In the coastal areas of Belize, tourism-based strategies predominate and are associated with both opportunity and risk. For PHMR and TIDE, alternative livelihood intervention involves working with local fishers and their communities, and linking them to tourism, possibly through TIDE Tours, in a way that achieves environmental and socio-economic objectives.

The Center for Park Management business planning process is under way for PHMR/TIDE. It can provide tools and guidance to help increase the opportunities, decrease the risks, and take advantage of the crossover effects of multiple tourism-based strategies. The process may generate marketing plans and communication strategies for key tourism-based strategies that build on the business plan to create conditions for success of the PHMR alternative livelihood program, and capture a segment of the tourism market.

TIDE Tours is uniquely positioned at the intersection of people, parks and the tourism industry. Though it has yet to achieve profitability, it has great potential to contribute to the environmental, socio-economic, and funding objectives of TIDE. It deserves its own business planning process with separate a marketing plan and a supporting communication strategy.

The most important recommendations offered to PHMR and TIDE by this paper are:

Recommendation: Conduct a robust business planning process for the Port Honduras Marine Reserve and the Toledo Institute for Development and Environment that reflects the level of dependence on tourism-based funding mechanisms.

Recommendation: Evaluate TIDE Tours for its potential to contribute to the programmatic and financial objectives of PHMR and TIDE; whether or not TIDE Tours is determined to be a viable contributor, develop a strategy for facilitating the employment of PHMR-trained/certified tour guides in Punta Gorda Town.

Recommendation: Based on that business plan, restructure TIDE Tours and establish its position at the nexus of PHMR/TIDE conservation, economic development and tourism
efforts; develop a marketing plan and communication strategy for TIDE Tours that includes a detailed action plan and budget; implement it; reevaluate it every six months for 2 years.

**Recommendation:** Review the successes and failures of others, including those described in the case studies presented in this paper, for guidance and inspiration.

**Recommendation:** Embrace the invaluable contributions made by Wil Maheia, but treat his exit as an opportunity - use the past success of TIDE as a springboard to create a new organization - with a new style and image based on a new vision; form new alliances but keep old ones when possible.

Most of the recommendations above are already being carried out in one way or another by the highly capable, dedicated PHMR/TIDE staff. This paper merely attempts to provide a few new insights and a fresh look at old ideas. It intends to reinforce the many accomplishments of the past, and inspire transitions to come. It is impossible to foresee what the future holds for the Toledo Institute for Development and Environment and the Port Honduras Marine Reserve, but there are sure to be many challenges ahead. This paper provides evidence that the leadership and staff at PHMR and TIDE, and the people of PG and the surrounding communities will meet them head-on, in a way that brings long-term hope for the parks and people of Belize.
9.0 REFERENCES


INTERVIEWS


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SUMMARY QUALIFICATIONS
Over 30 years experience in communications applied to environmental challenges:

- as a communications consultant - writing, editing, design and production of publications and communications materials, including 8 years with USAID’s Office of Environment and Urban Programs, followed by consultancies for the World Bank, The Communities Group, Inc., and others.
- as co-founder and board member of the Hausman Foundation for Environmental Solutions - grant and program evaluation of NGOs carrying out conservation activities in the Caribbean Basin; grantees in Belize, Mexico and Guatemala.
- as a graduate student - earning a Masters of Natural Resources at Virginia Tech.

NON-PROFIT ADMINISTRATION AND GRANTMAKING
2000 - present
Hausman Foundation for Environmental Solutions (FES)
Co-founder and Vice President/Treasurer of a small family foundation offering grants to local non-governmental organizations working overseas to protect biodiversity. FES’s first grantee, the Toledo Institute for Development and Environment (TIDE), manages the Port Honduras Marine Reserve and conducts a wide variety of community-based initiatives aimed at promoting environmental awareness and economic development in southern Belize. Other grantees include Amigos de Sian Ka’an working in Mexico’s Yucatan Peninsula, and Vivamos Mejor, in Guatemala’s Lake Atitlan area. FES provides financial as well as on-site technical assistance.

ACADEMIC DEVELOPMENT
2004 – present
Graduate Assistant, Natural Resource Graduate Program, Virginia Polytechnic Institute and State University. Working toward Master of Natural Resources (degree to be completed Spring, 2006); Teaching Assistant 2005-2006 - coordinated the Natural Resources Graduate Seminar Series, and researched and co-authored Changing the Face of Natural Resources Management: An Unprecedented Opportunity and a Strategic Imperative with David Trauger (2005). Contact: David Trauger - 703.706.4130.

PUBLICATIONS/DESIGN CONSULTANT
1995 – 2004
Clients included:

The Communities Group, Inc. (TCG). Communications consultant to this Washington-based family of companies which specializes in technical assistance and development services to the domestic and international urban development sector. Projects included editing, design and pre-press production for:

- The Communities Group, Inc. - corporate reports, portfolio and proposal covers;
- TCG International, LLC - project reports, brochures, policy papers and newsletters for such projects as the USAID-funded urban infrastructure FIRE(D) Project in India and the environmental international development SUMIT Project;
- TCG Development, LLC - brochures for six HUD HOPE VI community revitalization projects;

U.S. Agency for International Development (USAID). For 8 years, a communications contractor with USAID’s Office of Environment and Urban Programs; beginning in 1994, a full-time Information Advisor to the Center for Environment, contracted through PADCO, Inc. and The Communities Group, providing the following expertise:

Communications Strategy/Outreach. Helped develop a comprehensive communications strategy for the Center for Environment (1994). Contributed to Agency public relations and outreach efforts, including the nationwide Lessons Without Borders events and the Center’s Success Stories database; served as liaison to USAID’s Office of Legislative and Public Affairs. (1993-1995)

Writing/Editing, Design and Desktop Publishing. Oversaw all aspects (concept development, writing, editing, design, and disk-to-film production) of a wide range of communications materials, including annual reports (8 years), The Urban Report quarterly newsletter (6 years), theme sheets, brochures, posters, and presentation materials. Contributed to USAID’s Front Lines newsletter and served as contact for the World Bank’s Urban Age newsletter. Directly involved in the editing, design, and pre-press production of several technical documents and policy papers, in conjunction with USAID contractors which included Abt Associates; PADCO, Inc.; Research Triangle Institute; The Communities Group; and The Urban Institute. (1987-1995)

Overseas Communications Coordination and Review. Coordinated the outreach communications activities between the Washington and field offices of the Office of Urban Programs. In 1994, detailed to conduct an on-site communications review of the Regional Housing and Urban Development Office for Central America headquartered in Guatemala City.

Information Management. Managed a three-person team in carrying out information management and publications activities including the collection and distribution of field-generated technical reports and policy papers, and the maintenance of a bibliographic database of over 850 documents. (1993-1995)


MARGIE BURKS DESIGN
1975 – 1992

Sole proprietor of a small advertising and graphic design business which served over 60 clients in the Washington, DC area, including:
- WMAL AM63/Washington Redskins
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- WETA 91 and WETA/FM
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  - The Kemper Company
  - Wilkes, Artes, Hedrick & Lane
  - Washington National Zoo
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EDUCATION
University of California, Berkeley - Berkeley, California
  Bachelor of Arts, College of Arts and Sciences (1967)
Michigan State University - East Lansing, Michigan  
Teaching Credential, Secondary Education (1969)  
Virginia Tech, College of Natural Resources - Blacksburg, Virginia  
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- Computer/Internet expertise with advanced training and experience in publication design and pre-press production; limited experience in online publishing  
- Language: Spanish (Intermediate)  

AFFILIATIONS  
- Society for Conservation Biology  
- American Association of University Women  
- Art Directors Club of Metropolitan Washington (Board of Directors, 1993-95)