SUSTAINABLE ECOTOURISM & ISLAND COMMUNITIES: A GEOGRAPHIC PERSPECTIVE

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Abstract: The growth of international tourism has made it the dominant service industry in the world, and ecotourism is now a common prescription for funding sustainable community development in the Pacific. Developing and marketing island nations as tourist destinations, though, may transfigure the inhabitants' social history and landscape by mediating the formation of local identities and cultural patterns of behavior. Through their activities, residents, visitors, and the industry create recreational landscapes that represent opportunities and constraints for those living in a place defined through tradition and tourism. Consequently, the relationship bears closer examination in tourism planning.

To encourage a proactive approach, this paper presents a geographic perspective of tourism development on the Micronesian island of Kosrae. In particular, it uses cognitive maps to demonstrate that tourism functions as both agent and a process of change in the social identity, structure, and meaning of Kosraans as they move from a patriarchal, subsistence economy to a global market. Through differences in place images, it becomes clear that the physical space of Kosrae is defined by both experience and gender, and the “destination” of tourists is an inhabited landscape whose social communities exhibit the influx of new ideas, experiences, and changing patterns of gendered behavior associated with tourism.

Keywords: cultural landscapes, ecotourism, environmental perception, gender, Micronesia, sense of place.

Geographies of Place

The work presented in this paper combines perspectives in human geography and tourism that present the cultural environment of Pacific ecotourist destinations as socially constructed places. In so doing, I emphasize a local landscape that is frequently overlooked in the analyses of tourism planners and developers (Shaw and Williams, 1994; Squire, 1994; Theobald, 1994). The “destination” of the tourist market is a meaningful but different place for residents and visitors, and the communities of people that tourists encounter represent a history of lived experience, their cultural landscapes exhibiting the influx of new ideas and economic transformations associated with tourism development.

Tourism plays a significant role in the lives of people who intersect with or live on the destination of Kosrae in the west Pacific, and mediates the formation of local identities and cultural patterns of behavior and communication. Consequently, I intend to demonstrate how geographic perspectives about ecotourist destinations may better reveal the experience of place for Kosraeans, as they undergo the transition from a subsistence economy to a global market, and thereby more constructively anticipate the range of changes wrought on other emergent coastal and marine destinations.

Physiography

Kosrae is a single island state in the Federated States of Micronesia and the easternmost of the four states, which include Yap, Chuuk (Truk), and Pohnpei, the administrative capital (Figure 1). The second largest island in the Carolines after Pohnpei, Kosrae has a total land area of 68 km² or 42 mi², some of it the result of increased landfill in recent years. It is located approximately 800 km (500 mi) north of the equator and 2,080 km (1,292 mi) west of the International Dateline. Consequently, Kosrae is more proximate to the tourist markets of Japan and Australia than to those of the West Coast, whose visitors are attracted by the relative accessibility of Hawaii and Mexico instead (Figure 2).

Kosrae is the remnant of a classic shield volcano, and one of the first “high islands” encountered in sailing west across the Pacific Ocean. Surrounded by what many consider to be among the few remaining pristine fringing reefs in the world, the interior is rugged and heavily dissected by erosion from the prevailing rains, and the verdant, tropical jungle is inaccessible without local guides. A deep valley between Mount Mutante to the north and Mount Tefeyat and Mount Finkol, to the south, divides the island in two. Finkol is the highest point on the island, at an elevation of 850 m or 2600 ft, and it is the dominant outline of these latter two mountains that cause Kosraeans to refer to their home as the “Island of the Sleeping Lady.”

What makes the island particularly attractive, from an ecotourism perspective, is the relatively pristine natural environment of Kosrae. Less than 3% of the island’s 28,000 acres have been developed as roads and villages, while 63% of the land remains intact as mangrove, swamp, rain, and mountain crest forests. However, this figure is changing rapidly, as the land is cleared for housing and new tourism facilities.

Culture

The population of the island now surpasses 7,000 persons, the highest it has ever been, and a remarkable rebound from the near extinction of Kosraean culture in 1890 when it numbered only ninety persons (Gorenflo, 1993). Much of the growth has occurred in the post-World War II period and an overwhelming majority of the island’s population, or nearly 80%, is now under age fifteen—a situation with consideration implications for the future.
Federated States of Micronesia

Figure 1. Federated States of Micronesia.

Figure 2. Location of Kosrae, FSM.
Highly homogeneous in terms of ethnicity, Kosraeans reside predominantly in the five villages of Tafunsak, Lelu, Malem, Uewe, and Walung, and more recently, in the state government district of Tofof.

Considered one of the more conservative societies in the Pacific, Kosraeans are also among the most devoutly religious of the Micronesian peoples—fully 95% of the population are fundamentalist Congregationalists. The result of intensive missionary activity in the 19th century that succeeded in regenerating the Kosraean populace while eradicating most vestiges of traditional culture (Leibowitz, 1989; Segal, 1989). Community roles have traditionally been defined by gender with the men engaged in agriculture while women fished. However, the advent of jet travel and international tourism is now loosening the cultural restrictions against women in both dress and behavior, though the sexes remain segregated in church and prescriptions continue against cooking and recreation on Sundays. Less than 10% of the population has ever been off-island, although there is now significant out migration, mostly young adults attending universities on Guam or in the U.S.

Together, the people and the practice of their cultural beliefs provide the framework that dictates acceptable social behavior for visitors and residents alike, thereby presenting tourists with a set of opportunities and constraints in an environment that is both physical and socially constructed.

Tourism

Hoping to reduce their dependence on the U.S., which currently provides more than US$40 million a year in development aid (primarily Compact of Free Association funds that end in 1997), the State government has decided to promote Kosrae as a tourist destination, particularly for marine and cultural ecotourism. For many Kosraeans, the phenomenal growth in tourism worldwide is considered solid proof of its enormous potential for development. Indeed, the island is now experiencing a boom in construction of tourism facilities, much of it subsidized by the government—an issue of some concern in that many of the new entrepreneurs are also officials in the same agencies that finance and manage such development.

There is certainly no dispute that tourism can make a significant contribution to Kosrae’s economy. In recent years, the travel industry has been one of the most consistent growth industries worldwide, with an increase of more than 600% since 1960 alone (Vellas and Böcherel, 1995). Tourism now constitutes an extremely powerful social and economic force, second only to oil in world trade, and the total spending of more than 500 million international tourists accounts for more than 8% of the world’s total exports, 12% of the gross national income, and more than a quarter of the total revenues derived from trade in the service sector, making travel and tourism the largest growth industry in the world (Ahmen, 1992; de Kadt, 1979).

In the United States, where the tourism industry is forecast to grow eight percent annually through 1999, international tourism ranks as the largest export of the USA’s international trade in services, worth almost $54 billion in 1992 alone (d’Alessandro and Weston, 1993). By contrast, total receipts for East Asia and the Pacific region as a whole were $53 billion in 1993, or 16% of the world total (World Tourism Organization, 1994).

This figure represents the annual spending of roughly 68 billion international arrivals, of whom 1.5 million visitors—or 2% of the total—visited Micronesia, much of them drawn by the spectacular marine and biological diversity that abounds. Kosrae now averages more than 2,000 visitors each year, ranking it third in the FSM in arrivals, according to the Kosrae State Division of Tourism (Figure 3). Though the number who come is still relatively small compared to other, more developed destinations in terms of actual numbers, the impact is disproportionately high because of the island’s small size and relative isolation, and the exponential growth in visitation.

Ecotourism

Ecotourism was originally promoted to encourage travel that was culturally and ecologically sensitive, in which tourists both enjoyed and protected nature through the practice of low-impact activities and sustainable development (Valentine, 1993). Given this direction, there are a number of activities and attractions on Kosrae that would appeal to those interested in the physical and human environments of Micronesia. The former includes the vegetated, volcanic mountains and the Sonneratia saltwater mangrove forests, the numerous waterfalls and secluded beaches, and the abundant marine life immediately offshore along the reef. But nothing seems to signify the meaning of Kosrae more for residents, or is more ignored by visitors, than the historic Lelu ruins.

Constructed more than 500 years ago, Lelu flourished as the feudal residence of Kosrae’s Kings and High Chiefs for nearly 400 years, and the walled city once rivaled Nan Madol on Pohnpei in magnificence and political power. Even today, there is little in the Pacific that rivals Lelu in complexity or size (Cox, 1984). Yet, the ruins are little visited and the monolithic stone canals are now crumbling and obscured by pig sty and community garbage dumps.
Planning and Management

That places like Kosrae would increasingly appeal to tourism is certainly not unique to Micronesia. Indeed, the foremost goal of tourism proponents is to develop attractions and markets that engender increasing numbers of visitors, both domestically and internationally. Thus, many would be pleased to achieve even a modicum of the growth now apparent in Kosrae. Economic windfalls rarely come without social costs, however, and the marketing of traditional island communities as recreational destinations inevitably forces upon their inhabitants a social transfiguration. In addition, the development of tourism further exacerbates the already severe limitations that exist with regard to resource use in a bounded environment such as Kosrae, including antiquated and unreliable water catchment systems, a relatively small landbase, and competing pressures between agriculture and urbanization.

Traditional Perspectives

From a developer's perspective, the planning process is viewed simply as a matter of selecting the tools and techniques that will accomplish the stated goals in the shortest time with the least expense and disruption to the schedule of the developer. Thus, much of the tourism development now underway on Kosrae is carried out at the broader federal and regional levels, where information and inter-agency cooperation are considered more reliable and easier to obtain. Consequently, community plans that would benefit from the different experiences of other islands in the Pacific find, instead, apparent conformity and success in the regionalization of place.

Though some attention is given to the needs of environmental preservation and the community, the focus remains on the broader, economic dimensions of recreational development. Where cultural factors are considered more than superficially, the predominant interest is on the role and perceptions of the visitor, rather than the resident. Unappreciated are the perceptions that define the behavior of local people—images that may reveal, over time, transformations in the identity, structure, and meaning of Kosrae as an inhabited place for local people. The result is less informed knowledge at the local level—what happens to the people of Kosrae and their immediate community as ecotourism grows remains frequently unknown and beyond the purview of the observer based in Pohnpei, Guam, or Hawaii.

A Geographic Perspective

At a minimum, the very act of "selling a place" diminishes the unique history and cultural dynamics of a community and alters the residents' sense of identity. By so doing, important questions are left unanswered. In particular, to what extent do current tourism planning procedures accelerate the depth and character of the social changes apparent in places like Kosrae? Second, how might the adoption of certain geographic skills and techniques encourage a proactive process that is more cognizant of the repercussions of tourism development on this place and its communities?

I wish to preface my response by noting that the theories and ideas presented in this study are not intended to supplant those normally identified with traditional marine or coastal tourism planning. Rather, it is my hope that the inclusion of a geographic perspective will be regarded as contributing an additional layer of meaning and insight to the processes of ecotourism planning and marketing now underway in places such as Kosrae. The inclusion of the community's values and images, of itself and its place in the immediate recreational landscape, can do much I believe to determine whether any tourism strategy or land use system is successfully implemented or not.

Nor am I opposed to tourism, per se, and this discussion should not be construed as a diatribe against its further development. To the contrary, I believe that responsible ecotourism has tremendous potential for providing those who travel with a broad range of educational and cross-cultural benefits, regardless of whether their intended destination is local or international. And I do not deny tourism's ability, as an economic tool, to make a substantial contribution at easing the financial burdens of many resource-dependent communities. Indeed, examples abound of rural towns and villages where the formation and growth of a local tourist industry have resulted in a net increase in employment.

Unfortunately, higher employment figures do not always equate to a corresponding rise in per capita income. And the displacement of lower income residents, forced to confront accelerating costs with minimum wage employment, remains an issue buried in the jargon of job "mobility" and capital "relocation." As a consequence, the significance of the social effects that tourism has on local places, as well as its potential for further disruption, remains unappreciated. Indeed, "possibly the biggest issue tourism will be facing in this decade, and its most serious restraint, is its potentially damaging impact on the people and places visited" (Pacific-Asia Travel Association, 1992:3).

This is of particular importance since it is the hospitality of the "host" or resident population that ultimately decides whether tourism thrives or not. If development activities are not carefully planned to meet the needs and expectations of local people, then the threshold of acceptability will be quite low. Thus, a central question for Kosraeans concerns the long-term consequences to the community of gradually replacing a landscape forged
Figure 3. Annual visitor arrivals to Kaosrae State.
through time *in-situ* with one that caters primarily to visitors’ stereotypes?

**Cultural Effects of Tourism**

Recent critiques in tourism studies focus on the attitudes and behavior of the tourist and the industry as agents of social change, rather than acknowledge the significance of places as "centres of felt value" (Tuan, 1976) for the local populace. However, there is at least anecdotal evidence that social behavior between tourists and residents in shared, communal spaces is sensitive to the “different socio-cultural settings in which they perceive themselves to be” (Mowl and Towner, 1995), and some studies have suggested a set of cultural indicators that might be used as part of a tool of planning tools that identify and help to manage tourism’s impacts (Craig, 1995). Listed among them are criteria that would ascertain the:

- degree to which a community becomes economically dependent upon tourism over time, and the equitable distribution of any benefits to the community at large,
- extent to which the public is involved in the planning and administration of tourism projects and activities,
- loss of social amenity and environmental degradation, both visual and perceived, and
- changing sense of identity and autonomy.

Yet several critical themes remain ignored, including the commercialization or commodification of local sites and culture, the marginalization of the “host community,” and the production and privatization of tourist landscapes and services (Roach, 1994; Urry, 1990 and 1994). In response, the results of this study focus on tourism as both agent and process in the structure, identity, and meaning of Kosrae for local people, as they and their island become further embedded in the global tourism economy. It is suggested that the most suitable guidelines for future development are those which express sufficient awareness of the socially constructed landscape of residents, and employ controls and incentives (both economic and social) to encourage sensitive development that is low volume and locally controlled, carefully monitored, and fairly priced.

**Perceptions of Place**

Anxious to preserve the cultural “sense of place” that prevails while tourism expands, I was asked by the Kosrae State Division of Tourism in 1992 to initiate a community-based ecotourism program that balanced recreation with respect for cultural traditions and practices. As one component of the project, a composite map of the island’s social landscape was constructed from the cognitive images of those who visit or reside on Kosrae, in order to provide some means of monitoring tourism’s ability to affect Kosraean culture and behavior patterns over time.

**Methodology**

To establish a baseline for determining future change, 45 residents and visitors were randomly selected and asked to participate in a perceptual mapping exercise. Each was asked to depict physiographic elements in the Kosraean landscape according to situation or function (Lynch, 1960). Thus, participants were asked to identify features around the island according to whether they served as a 1) path or route of transport, 2) a landmark or fixture of location, 3) an activity center or settings for social interaction, 4) neighborhoods, or 5) an edge or boundary, whether physical or perceptual. In part, this was intended to distinguish the experiential landscapes of visitors, who emphasize paths and landmarks as markers of orientation, from the images of residents, who typically express greater awareness of the socially constructed nature of neighborhoods and activity centers.

**Tourism Landscapes**

Consequently, one finds a preference among tourists for descriptive images of the physical landscape of Kosrae—not surprising, given that most tourists are initially drawn to a place by its scenic grandeur (Figure 4). Areas identified for their activity are exclusively travel-related: the State Tourism and Immigration offices in Tofol, and the Sandy Beach Hotel and Marine Diving Center in Tafunsak. Again, this finding is rather predictable, given that these are the places at which tourists congregate.

More disappointing, however, is the relative lack of awareness expressed by visitors of the hinterlands of the island beyond the functional role of mountains as landmarks. Not is there any evidence in the maps of the four villages around the island and the people who dwell in them. Only the administrative district of Tofol is identified, where tourists must go for visas and the post office.

On the maps of residents, however, a great deal more information about the human landscape is provided that is both intimate and meaningful (Figure 5). Most notably, the presence of local people is clearly indicated on every map and each village is shown as a separate neighborhood, though interestingly, Tofol is excluded from this representation of community. In addition, there is a greater diversity of activity centers shown, tangible recognition that residents engage in a variety of ritualized social activities defined by particular locations and seasons. Indeed, the social context and richness of the natural landscape for Kosraeans is illustrated in the naming of selected waterfalls and mangrove channels, sites that have historically served as gathering places for men and women, as well as routes of communication and transport.
Kosrae: Visitors

Figure 4. Visitor's perceptions of Kosrae.

Kosrae: Residents

Figure 5. Residents' perceptions of Kosrae.
Gendered Landscapes

This latter finding makes clear that, not only is the physical space of Kosrae defined by perception, it is also gendered through the social and physical structure of the environment as well. Many of the maps of the older adult residents depict images that mirror their traditional spheres of work and knowledge in farming and fishing: men showed a preference for naming inland areas while women were more cognizant of the landscape along the coast and mangrove channels. However, there is little disagreement in the maps of younger Kosraeans, both male and female, who also exhibited a greater common awareness of the island as a whole. In part, this may reflect the disparity between men and women in benefiting from tourism, since women and young Kosraeans are more likely to be employed in tourism services and, therefore more familiar with the island’s biota and landscape (Harvey et al., 1995).

In sum, variances in the perceptions and attitudes of Kosraeans, tourists, and the tourism industry, underscore the critical role that ecotourism plays in shaping the human landscape of the travel destination, with its mosaic of gender and ethnicity. Collectively, they make clear that the general social processes which shape daily life on Kosrae for members of the community are “filtered through a local cultural sieve that produces a different set of outcomes” (Mowl and Towne, 1995:106) for visitor and resident, male and female.

Recommendations

I do not intend, in closing, that this study serve as a standard by which the incorporation of geographic perspectives into the traditional planning process might be measured for their effectiveness. Instead, I propose that the limited information presented herein function not only as a source of fresh subject matter for consideration, but even more so, as a whole new direction in tourism planning, i.e., a process rather than a means of attaining a particular set of goals.

In a continuing “process,” the achievement of success is best measured by the level of satisfaction, stated by the participants, rather than by the imposition of functional “land use” zones, an increase in employment numbers, or the kinds of facilities or total leisure dollars that accrue to a community through tourism. Through the inclusion of a wide range of individual perceptions into the planning process, and the meanings and values which they ascribe to a local landscape, insights may be elicited that would substantially improve our understanding of the impacts of tourism, not only on Kosrae, but in similar coastal recreation settings throughout the world.

Many of the social transformations associated with the expansion of tourism on Kosrae are not readily apparent to the casual visitor, couched as they are in the vernacular myths and lifestyles perpetuated by local people, given form only when perceived from positions of social intimacy. Yet, in a very real sense, these “place images” represent the physical manifestation of a socially constructed topography around which people learn to communicate, play, motivate, and navigate. Though admittedly, they proceed at a level that is more localized and personal, they remain as important to the successful conceptualization and implementation of a comprehensive community tourism plan as do the inclusion of scientifically concrete information, buttressed by empirically proven “facts.”

Sustainable Ecotourism

Adopting this holistic approach makes evident the extent to which sustainable ecotourism on Kosrae, or any other marine destination, is dependent upon the implementation of appropriate management policies and skills that benefit both visitor and resident, as well as clear, long-term benefits to the local community; recognition of cultural practices and beliefs; and the creation of productive linkages between residents, nature conservation efforts, and the tourist’s choice of destinations. These objectives are hindered by the difficulties of preparing a marketing plan for such a remote location, questions and conflict over local people’s values and those of tourists, differences in the preferred scale of development and location, defining appropriate levels of use of the island’s land and marine resources (reduced harvesting of the mangroves in the channels used for outrigger tours, for example, and the endangered mangrove crab, now exported to Hawaii), adopting litter control and encouraging greater recycling efforts, and promoting cooperative efforts among villages, and between government and the private sector (Valentine, 1993).

The dilemma then, for those truly concerned with the development of ecotourism on Kosrae and elsewhere, is to ascertain how to prepare these places for the visitor growth associated with their new fame and exposure as vacation destinations, when it is the existing qualities of remoteness and traditional culture that make them desirable. While the events discussed briefly in this paper describe a specific location and set of circumstances, the processes are endemic to the travel industry and affect local people and communities everywhere.

I suggest in conclusion, therefore, that an appreciative awareness of the symbolic nature of the cognitive images carried by local residents and visitors, however subjective, could prove a useful starting point for regional planners in understanding social behavior in ecotourism communities. To ignore such information, I believe, may precipitate the
unalterable destruction of a pattern of life that took years to (re)evolve and, by itself, represents a historically intact, culturally dynamic continuum on the physical landscape of the tourist destination.

References


SUSTAINABLE TOURISM PLANNING FOR A NEW MILLENNIUM: OR AT LEAST A GOOD PLACE TO START—MULTIPLE OBJECTIVE PLANNING TECHNIQUES AND THE GUIMARAS, PHILIPPINES EXPERIENCE

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Abstract: There is widespread recognition that tourism must move towards sustainability by embracing a more balanced planning approach. This is especially true for many small islands in the Pacific where tourism is being aggressively promoted, often with limited attention given to the overarching socio-cultural, economic, biophysical and institutional parameters. In a revealing Filipino case study, multiple objective decision analysis (MODA) proved to be an effective contributor to sustainable tourism planning.

On the small island province of Guimaras, MODA focused the preliminary planning efforts of the Philippine Cooperative Farm Tourism Project: The Guimaras Pilot Project. The iterative and participatory use of MODA was well received by Guimarasins while successfully integrating local knowledge and values into the planning process. This objective-based approach was also successful at positioning the Farm Tourism Pilot Project within existing provincial, regional and national plans.

At the core of the MODA process on Guimaras was a planning workshop. Here presentations reviewed important contextual issues (i.e., market conditions). This was followed by a qualitative and quantitative examination of project objectives. The insights gained were used to create and clarify a range of alternatives that culminated into a grassroots vision of 'farm tourism.' MODA systematically promoted an open process that established both a framework and a forum for multi-sectoral integration. The resulting group decisions overcame entrenched positions while nurturing a sense of commitment that is critical for effective project implementation. The success of this method on the rural island of Guimaras suggests that it is widely applicable, and thus capable of contributing to sustainable tourism initiatives in many planning contexts.

Keywords: tourism planning, participatory approach, creating alternatives, farm tourism, the Philippines

Introduction

As the world nears the new millennium, there is widespread recognition that the tourism must move towards sustainability by embracing a more balanced planning approach. This is especially true in developing countries where tourism is being aggressively promoted, often with limited attention given to the overarching socio-cultural, economic, biophysical and institutional parameters. This paper looks at a promising approach for sustainable tourism planning based on multiple objective decision analysis (MODA). Practical application of MODA is then examined in a case study of The Philippine Cooperative Farm Tourism Project: The Guimaras Pilot Project.

Analytical Approach

MODA is an approach to planning and decision making that draws from many disciplines including economics, psychology, operations research, negotiation theory and statistical decision theory. It is based on six fundamental steps: (1) defining the decision problem effectively; (2) establishing the planning context; (3) identifying relevant stakeholders; (4) elicitling and structuring a comprehensive set of objectives; (5) creating alternatives to achieve the stated objectives; and, (6) evaluating the alternatives with the objectives. This 'people-based' approach seeks to clarify inherent value tradeoffs while promoting the development of alternatives that are more likely to appeal to stakeholder interests. The insight gained from the MODA process allows decision makers to make better informed and more defensible choices—choices that can responsibly address the difficult issues of sustainable tourism and are more likely to result in successful project implementation.

Background

In 1992, The Philippine island of Guimaras (population: 130,000; area: 60,465 hectares) was declared a full province. Historically, Guimaras has been used for resource extraction and largely neglected in terms of development. This exploitation has left a damaged environment with 75% of the people living in poverty, making Guimaras one of the poorest province in the Philippines (MDP, 1993). The current administration's push for economic growth and new provincial responsibilities (ushered in with the 1991 Local Government Code) have exacerbated traditional institutional planning constraints including: no formal planning process or planning framework; opportunistic ad hoc land development; a dearth of (or difficult access to) materials, information and technical expertise; and, limited communication capabilities. Finally, there is a commonly held local belief that Guimaras is on the verge of a tourism boom, a belief that has been alive for over 30 years with little substantive support.
Project History

The Guimaras Cooperative Farm Tourism Pilot Project is an attempt to galvanize the Filipino ideal of ‘people power’ within a rural agricultural/coastal-zone context. According to the project’s Memorandum of Agreement, the project is “to render maximum socio-economic benefit to the local community through the collective and entrepreneurial effort of cooperatives” and achieve sustainable rural development. Cooperatives are entrepreneurial, economically motivated, ‘grass-roots’ organizations (e.g., basket makers, pump boat operators). Cooperatives would be the “mechanism—the viable structure which shall support and sustain a planned strategy for an agri-tourism merger.” But, for many reasons, there was general project confusion that signaled potential conflict, such as:

- few Guimarasños had heard of “farm tourism” or had had contact with a tourist;
- no clear planning, development or management process had been established;
- the industrious officials in Guimaras did not wait for federal funding and, on a marginal site (called Macopo Falls) with no formal plan, road construction began;
- many of the key Farm Tourism personnel had become deeply committed—emotionally, psychologically and financially—to developing the “donated” (through the agricultural land reforms) Macopo Falls site as a farm estate for tourists.

A cursory assessment based on interviews and a site visit suggested that the Farm Tourism project could benefit from exploring other alternatives. A balanced planning approach that addresses contextual constraints would be possible for two distinct reasons. First, meaningful stakeholder involvement could encourage group decision making and allow lead government personnel to fall back into a supportive role. Second, there was the opportunity to introduce a new planning approach with the external ‘expert’ (the author) shouldering the responsibility for the process results. Therefore, key participants could simultaneously ‘save face,’ while considering alternatives other than the immediate development of the Macopo Falls site.

Planning Strategy

A project strategy using MODA was crafted in coordination with key national and local project personnel and was based on a similar successful application in workshop setting (see Gregory and Keeney, 1992). MODA provided an ‘actor-oriented approach’ (Hickock et al., 1993) and avenue for stakeholder contributions and ‘buy-in’—in terms of both the process and the results. The stakeholders could then constructively question the project direction, address the potential danger of resource mis-allocation and utilize a ‘new’ framework for identifying stakeholders preferences. This could best take place in a workshop setting and follow-up meetings because of the powerful of the spoken word in Guimaras (due in part to culture and in part to a lack of report making technologies like computers, copy machines, etc.). Specifically, MODA was used for the following reasons:

- Decisions could be structured to promote more comprehensive and creative thinking in an overarching framework that is continuous, incremental and flexible.
- Integration of programs, plans and projects would be possible through the structuring of objectives and the use of multiple stakeholder participation.
- MODA is objective-based, future oriented and explicitly focuses stakeholder values and interests. By focusing on interests, values and objectives (e.g., promote economic opportunities) stakeholders could dissociate themselves from positions (e.g., the farm estate concept) creating an atmosphere for the invention of options for mutual gain (Fisher and Ury, 1983; Gregory and Keeney, 1992).

MODA was utilized on ‘data poor’ Guimaras because, as McDaniels (1994) explains, “the approach can be tailored to strategic comparisons across a wide range of alternatives, when less detailed information is all that is available” (italics added).

The Workshop

Workshop Preparation

To use the workshop time as efficiently as possible, preparations began weeks in advance. Document review and interviews with key project personnel provided a solid information base to expedite steps one through four of the MODA process. Aside from preparing for the substantive elements of the workshop, interviews—especially those requiring iterative sessions—were particularly instrumental towards developing personal relationships and uncovering informal personal dynamics existing on the island.

Defining the Problem Question

The obvious problem question, What is the most appropriate farm tourism concept for Guimaras?, was inappropriate for immediate consideration in the workshop due to the overall poor understanding of farm tourism. Therefore, the first question asked was What is Farm Tourism? Answers to this question provided insight into the most appropriate form of ‘farm tourism’ for Guimaras while establishing a foundation for discussion.
Identifying Stakeholders

Most of the local stakeholders were clearly identifiable from the earlier workshops. However, other groups, organizations, and individuals would be impacted by or could contribute to the Farm Tourism Project and should be offered a chance to participate. Initially, the suggestion of expanding the representative stakeholder groups was resisted. The underlying friction behind the unwillingness to accept additional groups included anxiety over a loss of control by established groups and apprehension that too many participants would slow project development.

However, compelling reasons for an inclusive process were offered. First, inclusion would foster greater cooperation and acceptance of the project because there would be no hidden agenda. Second, concerns over equity (who pays and who benefits) could be immediately and openly discussed. Finally, thoughtful foresight about the potential role of stakeholders and their early inclusion is an important way to minimize future conflict, integrate the Farm Tourism Project with other projects and activities, and, for the purpose of the workshop, provide additional insight into creating alternatives.

A systematic process using a tourism stakeholder matrix was developed for identifying stakeholders and summarizing existing and potential responsibilities. A review of the matrix with local officials revealed that two groups of paramount importance were not included in the upcoming process: (1) the existing tourism industry of Guimaras and (2) the residents of the local barangays (villages). Subsequently, these groups were represented.

Establishing the Planning Context

As expected, the participants were all sensitive to the charged “yes, yes” (fast forward) development atmosphere on Guimaras. However, none were aware of the constraints of the marketplace. Therefore, in addition to eliciting objectives, most preparatory interviews attempted assess about the Guimaras tourism market. Professional judgments, along with available statistics, provided a reasonable basis for constructing a tourism market profile. Near-term and long-term market potentials were projected prior to the workshop. The market profile was considered to be essential new information to the overall tourism context, reducing important economic uncertainties critical in creating and clarifying alternatives.

Identifying and Organizing Objectives

Numerous objectives were scattered among governmental plans, policies and specific Farm Tourism documents. Some were general (improve the standard of living) while others were unique to the Farm Tourism Program (strengthen cooperatives). Surprisingly, objectives elicited from stakeholders did not necessarily mirror the objectives in planning documents. Some objectives elicited from stakeholders further defined fundamental objectives while others were entirely unique. Interviews also revealed that different individuals were pursuing different objectives under the guise of the Farm Tourism Project, threatening conflict and uncoordinated action. The captious goal-cluttered environment was simplified into a hierarchy (Clemen, 1991) to promote consensus among all stakeholders as to a single ordering of values (Gregory et al., 1993). The planning process benefited from this structuring of values because the objectives were not tailored to alternatives being considered, promoting the creation of alternatives that might be particularly useful (Keeney, 1988).

Workshop Organization

The workshop was attended by 35 participants and began with a prayer, the singing of the national anthem, introductory comments and a review of the state of the project. The agenda for the workshop would be: (1) Understand market conditions—present and future—and discuss target markets for ‘farm tourism’; (2) Review objectives; (3) Create and clarify alternatives; and (4) Organize a ‘farm tourism’ committee. Below is a summary of the presentations and discussions.

The Guimaras Tourism Market

The Guimaras tourism market was the least understood, yet one of the most crucial areas, for planning ‘farm tourism.’ For without tourists, there is no tourism project. Therefore, a profile of market conditions and opportunities was presented. Two things were stressed specifically in terms of the Farm Tourism Project. First, a successful project would diversify the overall tourism product offered on Guimaras. Second, it would provide a diversion for the popular, but easily substitutable, “sea, sand, sun” resort tourism proliferating throughout the Philippines and, indeed, the world. Thus the project was highlighted as an opportunity for Guimaras to create a unique product and maintain viability in an increasingly competitive tourism industry.

A brief review of the available data was then presented. Besides the strong influence of seasonality, the most revealing finding about the Guimaras market was the shallow overnight and foreign market segment. An estimated 1,750 of the high-spending overnight and foreign visitors came to Guimaras out of a total 11,220 visitors. This represents an average of only five per day. In June an estimated average of just one foreign or overnight tourist per day arrived in Guimaras! In addition, market projections were made and potential markets identified.
Objectives-Focused Planning

A review of objectives, their importance and how they were to be used during the workshop followed the presentation of the market conditions. Participants were urged to add any objectives they felt were missing or discuss any existing objectives (one participant noted the importance of international relations and recognition). Participants were then asked to prioritize the list of means and end objectives using a 0–100 scale to weight preferences. Ties were allowed. The primary purpose of the ranking exercise was to give the participants a chance to reflect on what they were trying to achieve with the Farm Tourism project. Prioritization was initiated with end-objectives first, followed by means objectives. In other words, all fundamental objectives were compared and weighted against each other, then, under each fundamental objective, the first-tier means objectives were weighted, and so on. This approach was selected because it emphasizes the overall decision setting, more appropriate in cases when participants are unfamiliar with the problem in question (Hamalainen, Salo and Poysti, 1995). Furthermore, it was hoped that by organizing the objectives in the means-end relationship, a positional familiarity with a broad range of objectives would foster more creative thinking about potential Farm Tourism alternatives. The ranking also served to begin their own conceptualization of difficult trade-offs between objectives and reflect upon their own value systems.

Creating And Clarifying Alternatives

By design, the majority of the day was spent in a group discussion of farm tourism alternatives. In a brainstorming session, each participant offered an answer to the question: What is farm tourism? In an attempt to create an environment which fosters creativity and innovation, all ideas were to be expressed and no judgements or comments were to be made until everyone had exhausted their list of ideas (Fisher and Ury, 1981). Furthermore, any individuals who felt constrained by English were encouraged to use Hiligaynon, followed by an English translation.

Some participants felt restricted by the term 'farm' and felt that it inhibited their vision of the project. The term 'farm' seemed to preclude opportunities such as 'history' and 'religion,' which could be shared with the visitors and instill a sense of place similar to the tourist agrarian options. Regardless of these, many simply named, the 'Farm Tourism' label unnecessarily constrained project opportunities and was a potential source of disagreement. As Gregory and Keeney [1992] observed: "Disagreements tend to occur when the initial statement of the decision context explicitly or implicitly rules out either objectives or alternatives that certain stakeholders consider important. To reach consensus, one needs to remove the constraint on excluded objectives or alternatives." Agreeing that it was only a "metaphorical" term, the group immediately supported any expression of 'farm tourism.'

Farm Tourism Alternatives

Although many participants claimed little understanding of 'farm tourism,' thoughtful and viable ideas were articulated. All the participants felt that 'farm tourism' should be activity-based and a learning experience. Issues of authenticity, scale, control vs. spontaneity, spatial distribution, temporal influences, and the importance of place promoted a rich dialogue—ultimately answering the fundamental question: What is the most appropriate form of 'farm tourism' for Guimaras? Three clear alternatives emerged from the session (see Figure 1).

Alternative 1: Excursion Farm Tourism. An excursionist is a day visitor. In the context of developing 'farm tourism,' excursions would take place from either the resorts or from nearby large cities of Iloilo or Bacolod. Excursion Farm Tourism would take advantage of the existing tourism market (local and foreign) on the island by designing specific 'tours' to events, exhibitions, and activities—and help initiate the development of festivals. Close coordination with the resorts of Guimaras and promotion in the Iloilo/Bacolod would be required. The location of the events, exhibitions, activities, or places to be interpreted would be spatially dispersed. All participants agreed that this concept could be implemented quickly. It would not require any large investments in infrastructure and would serve as an essential starting point to expand the 'farm tourism' concept.

Alternative 2: Barangay Farm Tourism. Barangay Farm Tourism is spatially extensive and calls for tourism development in selected barangays throughout the island with the primary beneficiaries being the members of the Federation of Cooperatives. Most participants felt that to learn about farm-life is to learn about barangay-life. This alternative included three possible sub-concepts: 1) a barangay lodge; 2) a guest house (a separate house but associated with a family); and 3) a home-stay or bed-and-breakfast program. Of all the alternatives discussed, the idea of Barangay Farm Tourism received the most discussion, ranging from implementation to impacts.

Alternative 3: Farm Estate. As discussed, the Farm Estate alternative was the most familiar to many of the participants. The concept is locationally specific to the Macop Falls site. The concept called for construction of an entire farm (crops, livestock, fishponds, etc.) and a lodge/farm house on a site. Many issues were discussed, but the most significant planning constraint revealed was the fact that it will take at least five years before the provincial department of agriculture could develop a working and interesting farm. The department of agriculture representative identified procurement procedures as an
Figure 1. Farm tourism alternatives and market potentials.
additional problem to be considered when planning for tourism development in tandem with agricultural development. The Department of Tourism also indicated that at least five years would be required to develop a market for this product.

Evaluating the Alternatives

Of the alternatives identified, none were deemed to be mutually exclusive. Trade-offs among alternatives and between objectives would be made over the issue of timing and phasing. Strongly influencing the dialogue was the new information presented during the course of the workshop. The participants reached consensus that exhibits, events, tours and festivals should be immediately developed for the Excursion market segment. Next, Barangay Farm Tourism should be promoted, followed by estate farm tourism after five years.

The proposed phasing had a number of advantages. First, the low initial cost would reduce the financial exposure of the project. Second, because this is a experimental effort, the opportunity for incremental development would allow for basic knowledge to be discovered and, perhaps most importantly, it would allow key project personnel to gain valuable project specific experience. Third, a more complete understanding of the impact of different alternatives on desired objectives would be developed. Finally, the Farm Tourism Project could be integrated with provincial and municipal plans under consideration.

Conclusions

Field research in the Philippines benefited from the systematic MODA process, quickly identifying critical gaps in the data, providing an opportunity for the contribution of all stakeholders and expert judgment and easily incorporating ‘new’ information (i.e., market constraints) into the planning and decision process. The initial results from the MODA approach should be seen as just one of many steps required to develop a successful Farm Tourism Project. However, important insights were achieved including:

- The workshop successfully established important local area values, positioning them within the national and regional framework.

- Local knowledge, including competing or complementary programs and site specific considerations, were integrated into the planning process.

- The positional embrace of the ‘Farm Estate’ concept by many key Farm Tourism personnel was expanded, while being harmonized with the previously un-articulated ideas and objectives among stakeholders.

- The workshop signalled the need for planners and stakeholders to recognize the novelty of introducing ‘farm tourism’ into a young province that is aggressively trying to “catch up” with the nation and the world.

MODA proved to be an effective method to help structure and provide insight into the Farm Tourism Project planning process. With limited time and resources, in an under-developed, un-technical planning environment, MODA established a logical process that was intuitively grasp by stakeholders. Perhaps this was because it genuinely embraces what proponents of the method call "a formalization of common sense" (Keeney, 1982).

Discussion: MODA and Sustainable Tourism Planning

While the results from applying MODA to planning ‘farm tourism’ on Guimaras were robust, it is doubtful that the method, in its entirety, will be embraced by Guimarasnons in the future—particularly without a planner familiar with the method. However, some of the more important aspects of MODA were being incorporated into the local planning and decision making process after exposure to MODA. These included: efforts towards an inclusive process; discussions concerning creative alternatives; consideration of other programs through an understanding of multiple objectives; and, consideration of trade-offs, particularly who benefits and who bears the burden of tourism development.

Two specific comments from participants highlight the success of the MODA methodology in the workshop setting, and reflect the internalization of important aspects of the process. At the follow-up meeting to the workshop the President of the Federation of Co-operatives articulated (1) the need to expand the Farm Tourism Task Force in order to include as many stakeholders as possible; and, (2) reiterated the novel concept that the “site” should be the “Island of Guimaras” not simply the “Macapo Falls” site in order to achieve more of the project objectives.

It is important to realize the responsibility of the external expert to understand their role as an ‘agent of change’. Of critical importance in any situation, but especially in an Asian context, the expert can provide an avenue for “saving face” as new realities become apparent. The external expert can provide the opportunity for the group to attempt new methods and explore new ideas while shouldering the responsibility of failure (i.e., the President of the Federation of Cooperatives, referred to the ‘expert’ to help validate the idea of a broad inclusion of stakeholders). Therefore, change, or serious discussion of change, can be more easily initiated from within the group (where it must be made to have any lasting effects) without
radically disrupting existing networks, relationships and structures. This effort to 'keep the process in the comfort zone,' by using existing institutional structures and established relationships, should promote more rapid realization of substantive change.

It is the responsibility of the expert to be aware that besides important knowledge, they also bring their values into the process. MODA, especially through the value hierarchy, helps to address this issue of expert bias. As McDaniels (1994) explains, the planner's role is to: "ensure completeness and avoid redundancies in structuring the objectives" and "clarify the distinction between ends and means." This discrete role and the iterative process of establishing an objectives hierarchy minimizes the problem of an excessive infusion of expert values in the tourism planning and management process (see Williams and Gill, 1994; Stankey, 1990). MODA strives to separate expertise and experience from values and objectives. In this way, the focus is on the objectives being pursued and the creation of alternatives, not what the expert believes. The expert should recognize this distinction in their actions and make it explicit to those involved. On the other hand, it is not possible to completely eliminate expert bias and responsible "biasing" should be encouraged as part of the role of the expert. Responsible biasing includes "suggestions that cause the group to think deeper about their problem and reach what they consider a better understanding." (Keeney, 1988).

While the conceptual approach used has potential for broad application in numerous settings, more advanced and quantitatively powerful extensions of this method (i.e., testing probability with Monte Carlo Simulation or the establishment of decision maker utility functions) would be inappropriate in settings similar to Guimaras due to: a reliance on verbal communication; limited expertise; general unfamiliarity with the techniques; lack of high tech equipment to facilitate analysis (i.e., a computer); and lack of time and interest among key decision makers. Nevertheless, enormous advances were achieved by using the approach simply to structure, organize and open dialogue surrounding important issues. The process in general, and the workshop in particular, achieved the more important objective of value focused thinking—which is, according to Keeney (1988), "to better understand the decision situation, which could lead to identification of better alternatives, better communication, better use of data, and hopefully better decision making.”

References


ENDNOTES

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2 For example, there are two cellular phones on the island, the road system is poor, the transportation system is overburdened and inconvenient, there are very few computers and no photo copiers.
ECOTOURISM AND MARINE RESERVES IN NEGROS ORIENTAL (PHILIPPINES): A SUSTAINABLE SOURCE OF INCOME FOR FISHING VILLAGES?

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Abstract: The coral reef marine reserve of Apo Island, Philippines is widely regarded as an impressive success of community-based reef conservation. The reserve attracts increasing numbers of tourists as well as environmental groups thus generating additional income and promoting reef protection. This is an attempt to evaluate the economic benefits of the protected area for fishermen, resort owners and dive tour operators.

The questions has been raised as to whether this model can be applied to other reserves in Negros Oriental, with similar economic benefits. Therefore, some selected sites have been described in terms of attractiveness and accessibility with regard to ecotourism. The potential for ecotourism varies greatly between the 17 other protected inshore and offshore reefs, with some sites showing considerable potential for tourism development. In order to support tourism the reserves have been marked and sign-posted to help fishermen and tourists locate the reserves. A jointed photo exhibition with the Provincial Tourism Board was held to promote a high profile campaign for reef conservation.

Keywords: Philippines, coral reef reserve, economic value, ecotourism, fishing communities

Introduction

Apo Island is located in Negros Oriental in the Central Visayas, Philippines (Figure 1). This is a volcanic island covering only 72 ha with a total population of 460 people (Savina and White, 1980), whose main source of income is fishing. As early as 1979, Stimson University based its coral reef conservation programme on the active involvement of the fishing community of Apo (Cabanban and White, 1981). The underlying principle was that only the main reef users could provide efficient protection for small size reserves. Since 1985 when the marine reserve of Apo was formally established, it has developed into a model site (Savina and White, 1986; White 1989a, b), attracting scientists, reef managers and increasing numbers of tourists. Numerous studies mainly concerned with changes in fish populations and fish catches have been published (Acuña and Luchavez, 1981; Savina and White, 1986; White and Savina, 1987; White, 1988, 1989).

However, these studies concentrated on the fishery aspects and did not include the benefits of tourism.

Tourism in Negros Oriental is still in its infancy. The social and political setting in the province is stable and foreigners can enjoy the warm welcome and the hospitality of friendly people. The potential for tourism development is very promising (PATA, 1994). Hiking in an impressive mountain scenery with volcanoes, waterfalls and caves are only a few of the numerous attractions (Figure 2). The marine environment offers a particularly interesting spectrum of activities such as dolphin and whale watching, dive trips to coral reef reserves, as well as bird watching in mangrove forests.

However, the marine resources are heavily over-fished and additional sources of income for the fishermen are scarce. In a joint programme by CEMRINO, PPO-RMD and GDS1 small-sized marine reserves of 4–10 hectares are currently being established (Vogt and Schirm, 1995, 1996). These reserves allow fish stocks to recover, and it is hoped that a spill over effect will lead to increased sustainable fish catches in the adjacent areas. This paper aims to assess tourism as an additional source of income for fishing communities.

Financial Benefits of the Marine Reserve at Apo Island

A cost benefit analysis of Apo Island marine reserve was conducted. For this purpose, published catch data (White and Savina, 1987) were combined with enquiries made on Apo island and at the Dumaguete fish market. The major economic advantages and disadvantages for fishermen, resort owner, dive tour operators, scientists and environmental groups are presented in Figure 3.

Fishermen

In order to establish a reserve on Apo, the fishermen had to stop fishing at a site where fishing had been profitable before. The value of this loss in fish catches is estimated to be approximately US$2400 every year. However, the financial benefits of transporting tourists to the island is substantial. In the resort, four additional jobs have been created providing income for four people. The income gained from selling souvenirs appears to be limited though. The overall income due to tourism exceeds by far the loss due to reduced fish catches (Figure 3). However the total amount is less than for the other groups.

Resort Owner

Accommodation on Apo Island is very limited. Located about a 15 minute walk away from the reserve the "Canopy
Figure 1. The location of the province of Negros Oriental within the Philippines.

Figure 2. Tourism perspective of Negros Oriental (reproduced with permission of the Provincial Tourism Office).
Cove” is the most frequented resort. It consists of six beautifully arranged huts, and a small restaurant made of local design and materials. Recently, diving facilities have been added, allowing divers to fill their tanks and to rent equipment. The resort has become increasingly popular with Filipinos and foreigners. The resort owner had to make a substantial investment in setting up the resort, thus taking serious risks. The income generated by the resort is considerable (Figure 3). The future of the resort is strongly dependent on the health status of the coral reefs, and the reputation of the reserves as model for other areas.

Dive Tour Owner

Dive tour operators are predominantly Filipino, although foreigners carry divers to Apo as well. The Apo coral reefs are regarded as one of the top dive spots in the Visayas, thus divers visit Apo as part of a dive tour. The dive tour operators are a group that potentially benefit the most without having to invest in the site (Figure 3). The risks involved for this group are limited, because they are not dependent on one site alone. They can choose to take their group to other sites once one reef has lost its attractiveness. However, in the long-term it is also in the interest of dive operators to support the sustainable use of the reserves because the number of attractive sites is limited, and frequent site changes may have a negative impact on their business.

Scientists and Environmental Groups

Neither group directly benefits financially. However, the Apo reserve provides a study and model site for both groups. Considerable effort by Silliman personnel was initially needed to achieve the protected status of the reserve.

There are no documented negative effects of tourism on the environment of Apo island. However, large amounts of plastic bags and other garbage gets trapped in the bay where the resort is located. The origin of the waste is unknown and it may not originate from the island. Tourists have to walk through the village in order to get to the marine reserve; however, it appears that the friendly inhabitants of Apo do not mind their presence.

Can This Model be Transferred to Other Reserves in Negros Oriental?

Coral reef reserves in Negros Oriental receive wide support by the local fishing communities, provincial authorities, political and environmental organisations. A joined photographic exhibition with the Provincial Tourism Board was held to highlight the main attractions of the province. As part of the natural heritage coral reef were included to heighten awareness of reef conservation and to promote their sustainable use.

In a province where Filipino and foreign travellers are welcome, ecotourism may be considered as an additional economic benefit of marine reserves. In May 1996, there were 18 active coral reef reserves in Negros Oriental. The potential of six additional sites to become reserves is currently under investigation (Table 1). All of the marine reserves are small in size (< 1.5 ha), and are managed by the local fishing communities. The reef reserves vary largely with respect to their attractiveness to tourists. A vital factor for the selection is the structure and species diversity of the coral reef. All sites marked as “well developed” in Table 1 provide dive locations similarly attractive to the reserve in Apo. However, the other locations have individual characteristics, and may be of interest for divers as well. Most reserves can be visited on day trips. Travel time from Dumaguete to the reserves varies between 30 minutes to 3 hours. A trip to Apo will take 30 minutes by car and a further 30 minutes in an open outrigger boat. This may be considered either adventurous or inconvenient. As it may take some time to hire an outrigger boat, the total travel time may be about one hour 30 minutes. Many other reserves require less travel time and can be accessed from the shore.

However, tourists may be prepared to travel longer distances if the destination is worth the trip, and if suitable accommodation is available. Accommodation may be a limiting factor (Table 1). In 1994, only 168 rooms were available in the entire province (PATA, 1994). However, it is likely that this number has at least doubled since the recent opening of new resorts and hotels.

Based on the above criteria, the reserves are grouped and their potential for tourism are discussed.

Tambobo Bay group

In the municipality of Siton, south of Dumaguete, development has already commenced. Two reserves have recently been established in this region (Tambobo and Andalay), and a third reserve (Lutohan) is strongly being recommended (Cemmo, 1996). This region provides coral reefs similar to Apo Island in terms of size and diversity, and is accessible by road. Accommodation is available in scenic surroundings for a small number of people. Similarly to Apo, the reserves are owned by foreigners. Dive tour operators do not seem to include this area in their tours yet. Unlike Apo, fishermen do not benefit by renting out their boats to transfer tourists. Thus the economic benefits are then considerably less, compared with Apo. However, if this region becomes frequented by divers outrigger boats may be rented to transport divers to the most interesting locations. As a second measure to compensate for the loss in fishing ground, it is suggested that a fee for entering the
**Table 1. Economic benefits and disadvantages of the marine reserve in Apo Island.**

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<th>min</th>
<th>max</th>
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<td><strong>fishing community</strong></td>
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<tr>
<td>benefits: boat transfers to Apo</td>
<td>0</td>
<td>4</td>
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<td>38</td>
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<td>selling of souvenirs etc.</td>
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<td>new jobs in resort</td>
<td>4</td>
<td>13</td>
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<td><strong>disadvantages: fishing grounds reduced</strong></td>
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<td>catch loss in reserve (11.2 ha)</td>
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<td><strong>resort &amp; dive base owner</strong></td>
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<td>benefits: accommodation beach hut hill top</td>
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<td>restaurant</td>
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<td>14</td>
<td>7</td>
<td>81</td>
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<td>4212</td>
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<tr>
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<td>32692</td>
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<td><strong>dive tour operators</strong></td>
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<td><strong>scientists</strong></td>
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<td>benefits: study sites model</td>
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*This value was computed by fish catch data of White and Savina (1987) combined with fish prices at Dumaguete fish market. It was assumed that the fishermen receive 75% of the market price.*
reserve is applicable. The fee should be made available to the Bantay Dagat (fishing association).

Bais Bay

Bais Bay, located approximately one hour drive north of Dumaguete, has become well known for its dolphin and whale watching tours. These trips include guided tours through a mangrove forest and a swim in sandy area. However, nearby coral reef reserves (Table 1) are not included in the programme. It appears that considerable potential exists to include snorkelling and diving in these tours. A small fee should be due for tourists entering the reserves. These fees should be for the benefit of the fishing organisations in charge of the reserves to compensate for loss in fish catches in these areas. Accommodation is available in Bais City including a newly opened hotel on a hill top overlooking the bay.

North of Dumaguete

Most of the reserves are located north of Dumaguete (Table 1). The conditions of the reefs and their attractiveness to tourists vary strongly. However, the interested traveller may easily arrange a collection of sites to be visited during day trips or with overnight stay in, for example, in Bais City.

South of Dumaguete

Apart from the reserves in the Tambobo group only two other reserves are located south of Dumaguete in Masoplod Norte and Bongalonan. The reserve of Masoplod Norte is conveniently close to Dumaguete, whereas Bongalonan offers a particularly well-developed reef situated at the southern end of the province. Tourists prepared to travel for three hours may find accommodation in nearby Basay.

Discussion and Conclusions

Using the example of Apo, it has been shown that fishing communities can benefit economically from community based reserve management through tourism. The Apo model may be transferred to other locations where conditions are comparable. However, the extent to which each community may benefit varies considerably depending on site factors. A study of the tourism potential of Negros Oriental concluded that the province should take full advantage of its tourism assets (PATA, 1995). Along with this report, it has been strongly urged that small scale, sustainable tourism is promoted only, adjusted to the specific environment of each site. This form of tourism may be addressed as ecotourism, special emphasis being placed on avoiding undesirable long-term effects. The time scale for evaluating tourist development should be viewed within the context of intergenerational quality of life. This requires both sustainable use and the protection of biodiversity as preconditions for the needs of future generations (McManus, 1995).

In areas such as Tambobo Bay conflict may arise between the already developing ecotourism and plans to build a moderate-sized hotel with an attached marina. It is planned that a 30-room hotel is built with an option to expand at a later stage (PATA, 1994). Given the very positive conditions in this area, it is possible that the area will be developed to accommodate and entertain tourists on a two to three-star level. However, the potential of the bay as a site of a marina, used for sport fishing for the clientele of the four to five star level may be another future plan. This development will doubtless create new job opportunities. It appears likely that a large number of positions will require specially trained personnel, which may be employed from other areas. The benefit for the fishing community may be increased if fishermen provide transportation to the reserve, or are entitled to charge admission fees. However, this would require a united group dedicated to use the reserve as a source of income. The danger exists that more business minded people may take over this role, thus reducing the benefit of the fishermen.

In the past, Tambobo bay escaped the threat of becoming a U.S. American naval base. However, it can be expected that within one to two generations, tourism will have changed it beyond recognition. The possibility exists that this change will have irreversible effects for the artisanal fishing community that exists now. Whether this change will be for the economic benefit of these people is difficult to predict. Regardless whether two to five star facilities or ecotourism prevail, either form of tourism is dependent on a healthy environment, including the existing coral reef reserve. Preservation of the marine life is thus mandatory.

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References


ENDNOTES

1 Centre for the Establishment of Marine Reserves in Negros Oriental, Philippines (CEMRINO), Provincial Planning and Development Service–Resource Management Division (PPDO-RMD) and German Development Service (GDS).

2 From 20-29 March 1996, the Provincial Tourism Board organised the "Balik Negros Oriental" tourism week. As part of the programme a joined photo exhibition was held at the at the Lee Super Plaza Shopping Centre with contributions from the Provincial Tourism Board, CEMRINO, GDS and PPDO-RMD.