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TOWARDS A RATIONAL USER FEE SYSTEM FOR TOURISM IN SAGADA, PHILIPPINES

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The study attempts to analyze the potential of developing a user fee system for the sustainable development of tourism in Sagada, Mountain Province, Philippines. Estimates of willingness to pay of tourists for nature's services derived from a non-market valuation study provided the springboard for the range of user fees. Use allocation of potential revenue from user fee included education and awareness, improvement of facilities, waste minimization and clean-up, capacity building, and response to accidents and disasters. A council composed of various stakeholders was identified to be the institutional mechanism for developing, adopting and evaluating the operational policies as well as reviewing and approving programs and projects to be financed by the fund. Policy procedures and processes including information sharing and consultation, and the administrative arrangements for implementation and enforcement would best be conducted through this management authority to ensure that the environment and the community benefit the most.

market based instruments, user fees, willingness to pay, tourist and recreational sites, Sagada

INTRODUCTION

Economic instruments have been receiving a lot of attention as the way forward for environmental management and have been described as promising tools for advancing sustainable development. Described as market-based instruments (MBIs), they are levers that can be used by natural resource managers to change behavior of users so they are aligned with the objectives of resource management (Stavins 2001). Any instrument that aims to induce a change in behavior of economic agents by internalizing environmental or depletion cost through a change in the incentive structure that these agents face qualifies as an economic instrument. Creation of 'markets for ecosystem services' can promote conservation and support for local livelihoods since it rewards the resource owners/managers for their role as stewards in providing these services (Mayrand and Paquin 2004). Theoretically, they offer a way to introduce more flexibility and thereby reduce costs associated with achieving environmental outcomes. Economic instruments are basically market mechanisms that are designed to address context specific problems of environmental quality including natural and cultural resources for tourism.

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In the tourism industry, a number of relatively simple MBIs known collectively as tourism user fees can gather significant revenues from tourism-based activities which can be directed toward supporting the site and other conservation efforts (Dwyer and Forsyth 2010). The fees partially reflect the cost of supplying recreational services, the demand for natural resources and the value that visitors place on their experiences on the site. The direct link between maintaining natural areas and income from user fees is a strong economic incentive for conservation (CFA 2004).

When considering various MBIs like user fees, the question on the right level of charging or taxation is important. Ideally, the instrument should be designed to internalize external costs, i.e., all direct and hidden environmental costs that would be borne by the community in the area of environmental influence should be built into the pricing (Chou, et.al 2012). For developing countries like the Philippines, a phased approach of initially setting user charges that approximate the externalities may be appropriate to address willingness and ability to pay. In this regard, non-market valuation plays a prominent role for the optimal operation of economic instruments. Non-market valuation can be used to improve the use and effectiveness of economic instruments by providing an estimation of benefits and costs associated with the use of natural resources.

This paper aims to analyze the potentials of developing a rational user fee system for Sagada, a favorite destination in the Philippines. The remainder of the paper is organized as follows: Section 2 provides a description of Sagada, while section 3 presents the initial attempts for the sustainable management of tourism in the site. Section 4 reviews materials related to valuation of the recreational services of the site. Section 5 discusses the establishment of a user fee system for Sagada, and its administration and management. Some concluding comments are given in Section 6.

Sagada, a Tourist Destination in the Philippines

Endowed with rich natural and cultural heritage, the Philippines is one of the countries aspiring to become a strong player in the ecotourism industry. Emerging economies like the Philippines are expected to be increasingly important engines of growth in the ecotourism industry, boosting both international travel and also generating increasingly vibrant domestic tourism sectors (Balmford, et al. 2009). An ideal ecotourism destination in the Philippines identified by the Philippine Department of Tourism is Sagada, often called the "off the beaten track" (Tacio 2009). Sagada is a mountain resort town in Mountain Province tucked between the Cordillera and Ilocos mountain ranges and is famous for its highly acclaimed ancient engineering marvel and natural and cultural attractions, most notable are the caves, waterfalls, natural pools and the 'hanging coffins.' The best-selling travel guide, Lonely Planet has listed Sumaguing Cave in Sagada as one of the best adventure travel destination in the world for 2009 (Lonely Planet 2009). Sagada has been the subject of research studies mostly discussing indigenous culture and practices, political institutions and governance, biodiversity and natural resources management, among others (Carino 1996, Corpuz-Diaz 1994, Dulnuan 2003, Mendoza et al. 2006), but there is very little attempt to look at the economics of tourism which is a growing industry in the municipality.

Tourism has grown as a significant industry in Sagada beginning in the late seventies. It grew rapidly in the mid 80's and resulted in the mushrooming of inns and lodging houses as well as the rise in the number of small restaurants and cafes that cater mostly to foreigners. For the past twenty years, it has grown into a bustling tourist destination with

the accompanying growth in commerce and trade (Carino 1996). From 2007 to 2010, total visits to the site per year ranges from 24,030 to 31,456, with peak periods from February until May (Sagada Tourist Information Center 2011).

In a study by Abansi (2011), tourists in Sagada engage in cave activities, waterfall activities, trekking/nature hikes and visiting cultural sites. Four hours of spelunking in Sumaguing Cave offers steep descents and rewards the spelunker with wonderful stalactites and stalagmites formations. The more adventurous ones proceed to cave connections which require seven hours of rappelling and crawling through tight and narrow spaces. A visit and dip in the towering Bomod-ok Falls (also called the Big Falls) requires an hour trek to the falls and along the way, tourists are treated to the sight of graceful rice terraces that hug the mountains. The undulating rice swaying in the wind like green waves in a terraced sea is enough to hypnotize and lull a visitor to calmness. A bonus in this nature trek is passing through a village filled with traditional houses of indigenous people. The spectacular sunrise viewing at Kiltepan and sunset viewing at Lake Danum followed by bonfires also provide remarkable enjoyment to tourists. Visitors are also amazed by Sagada's traditional way of burying the dead – either by stacking the coffins at the opening of a cave like in Lumiang Cave, or by hanging them precipitously from cliffs. Admiration is expressed for the tribal celebrations religiously observed by the locals while interest is shown in the Sagada pottery, weaving and museum. Weaving is an important Sagada industry where tourists are able to see looms and the colorful patterns of the different native cloths that are used for garments, bags, and placemats. The Ganduyan Museum showcases shields and machetes used during the headhunting days of the natives, traditional attires, home implements, jars, jewelry and burial shrouds, and gives travelers a better understanding and profound admiration of the Sagada people. Tourists engage with the cultural heritage of Sagada not only through monumental forms but in more intangible ways as the past is enshrined in contemporary behaviors and practices. While tourist demand to see cultural displays and rituals can produce conflicts with the local community, this tension does not exist in Sagada because rituals are done not to suit the timing of tourist arrivals and visitors' curiosity. They are enacted traditions that are effectively preserved by the locals.

Tourist activity in Sagada has been a major source of employment for local residents and sales for local businesses, however, there are also accompanying social stresses and culture clashes arising from differences between norms and income levels of tourists and locals. Environmental stress from garbage accumulation contributes to the occurrence of flooding, while vandalism especially in the caves inflicts worst damage on the stalactites and stalagmites (Dulnuan 2003). The foregoing confirms that the greatest paradox of tourism is centered upon its capacity to generate benefits, and yet at the same time create pressures and problems.

Initial Attempts for the Sustainable Management of Tourism in Sagada

To sustain the tourism industry and at the same time protect the environment, the local government of Sagada passed an ordinance in 1994 requiring all visitors of Sagada to register at the Tourist Information Center within 24 hours from arrival and pay an entrance fee of ten pesos (PhP10). The collection was dedicated to a fund which was managed by the Sagada Environmental Guides Association (SEGA), a non-government organization that enjoyed a seat in the Municipal Tourism Council. The fund was used mostly to improve pathways to the sites especially those which were not easily accessible, to conduct clean-up, and to respond to accidents and natural disasters.

In 2007, Sagada revised its Tourism Code through Municipal Ordinance 07-2007. In the revised code, the local government of Sagada shall be in charge of the registration of tourists and collection of fees, this time termed as environmental fee. Collections are submitted and accounted in the municipal treasury office as income/general fund. Of the total tourist fee collections, no less than 50% of the annual collections shall be used purposely for tourism projects. In 2008, the environmental fee was increased to twenty pesos (PhP20) by virtue of Ordinance 07-2008. There was an initial opposition to the increase in fee because visitors claimed they were not enlightened on where the collection went. There were also debates on the proposal to increase the fee, of which the most heated one was the questions on the desirable and appropriate amount. After sufficient time was allotted for public information and communication, the local government proceeded with the implementation of the new fee. To minimize revenue leakages from the collection, all hotels and inns were enjoined to ensure that their guests are registered in the Tourist Information Center before they are provided with accommodation. Registration at the Tourist Information Center not only ensures payment of the fee but also alerts the authorities on the whereabouts of tourists especially during accidents.

Key informants interview of the members of the Tourism Council of Sagada revealed that the amount of fees in both the first and second ordinances were determined arbitrarily. The major consideration was to generate some fund without antagonizing the locals who perceive that the local government is putting Sagada 'on sale'. It is quite obvious that the local government recognizes its power to use taxation to finance conservation efforts however, its current capacity in charging appropriate visitors user fees may be limited.

Economic Valuation of Sagada's Recreational Services

Optimum pricing for resources that are public good in nature such as Sagada's recreational resources should be based on user's benefits. Economic valuation provides the necessary initial step in imputing a value to Sagada's resources so their use can be sustainable. This will support a sustainable management plan that will maintain the quality of recreational attractions in tandem with the preference of the locals to preserve their community.

Abansi (2011) conducted a study on willingness to pay of tourists for recreational services in Sagada using contingent valuation method (CVM), a non-market valuation technique. CVM is a stated preference method that can elicit willingness to pay (WTP) to measure both use and non-use values of recreational resources and is considered a popular approach for measuring the demand for recreational resources with public good elements (Haab and McConnel 2002). In the absence of local government funds, willingness to pay for recreational benefits can be a basis for identifying potential sources of sustainable financing. CVM has been applied in the Philippines to value benefits in major marine sanctuaries (Arin and Kramer, 2002), in the Tubbataha Reefs National Marine Park in Palawan (Subade, 2005), in the Banaue Rice Terraces, a UNESCO heritage site (Calderon et al, 2008), among others.

In her study, Abansi (2011) conducted a face to face survey among a total of 302 local and 70 foreign tourists of Sagada using cluster sampling with the adventure sites as the basis for clustering. The dichotomous choice approach, also called referendum method was used to elicit information about the respondent's WTP. The respondent was offered a random price, to which the answer was either 'Yes' or 'No'. Specifically, respondents were asked the following questions and were required to respond either 'Yes' or 'No':

"Suppose that a trust fund for the improved management and preservation of Sagada's recreation sites will be created and will be managed by a council composed of various stakeholders. Proceeds from a new entrance fee will go to the trust fund. If entrance fee is increased to PhP x, would you be willing to pay so that you could continue to enjoy Sagada's recreational sites?"

where x ranged from PhP50 to PhP150, representing a 'reasonable' amount of entrance fee from results of pretest and focus group discussions. The preference function was estimated using parametric techniques, which allowed the calculation of the willingness-to-pay value from the estimated parameters and the identification of factors affecting willingness to pay.

Using logistic regression, the mean WTP were calculated and the estimates were PhP82.63 for local tourists and PhP128.64 for foreign tourists[1]. In the analysis for local tourists, bid amount, household income and age of the tourists were found to significantly influence willingness to pay for protection and preservation of Sagada's attractions. For foreign tourists, only bid amount and income were found to be significant variables. The result for bid and income is consistent with the *a priori* expectation that the price of the good and ability to pay would influence peoples' willingness to purchase the good or service.

Establishing a User Fee System for Sagada

Computing a User Fee from WTP Estimates

Estimates of willingness to pay from logistic regression in Abansi's study (2011) are PhP82.63 for local tourists and PhP128.64 for foreign tourists. This means that at prevailing conditions, each local and foreign tourist on the average realizes a net benefit of PhP82.63 and PhP128.64 per visit, respectively. Although these WTP estimates are relatively smaller than those obtained in the CVM studies cited in Section 4, they are significantly higher than the current entrance fee of PhP20 collected by the Sagada Tourist Information Center. This implies that there is scope for increasing current tariff and exploring a price discrimination scheme. Such option has to take into consideration the higher percentage of locals willing to pay compared to foreigners as well as the implications to projected amount of revenues from such measure.

Estimated Potential Revenue from User Fee

Sagada stands to benefit from an increase in entrance fee in terms of having available funds for the management of its natural environment. An estimate of the total value of an environmental good can be obtained by multiplying the average WTP estimated from the survey by the total number of visitors to the site.

The Sagada Tourist Information Center reported that local tourism wildly fluctuates throughout the year with most people choosing to visit Sagada during summer and in December. Visitors during the peak period in 2010 were 2,186 in March, 4,645 in April, 2,756 in May and 2,741 in December, for a total of 12,328. Of this figure, 18% were foreigners while 82% were local tourists. Total for the year including off-season visitors was 24,030.

Applying the highest bid amount of PhP150/visitor that would pass an actual referendum to the total number of visitors who visit Sagada in year 2010, potential revenues from increased entrance fee could get as high as PhP3,604,508 annually. Using the mean WTP of PhP82.63 of local tourists will generate PhP1,985,599 per year, while using the mean

WTP of PhP128.64 of local tourists can result to annual revenue of PhP3,091,219. If Sagada will implement a two-tiered or differentiated pricing system for local and foreign tourists, the estimated revenue is PhP2,209,438 (Table 1). The revenues that can be generated under the various scenarios described can be used for various programs dedicated to the preservation of Sagada's natural and cultural heritage.

Table 1. Potential revenues* from WTP values under various scenarios

Scenario	Number of visitors	WTP Value (PhP)	Estimated Annual Revenue (PhP)
Total visitors charged with highest bid amount	24,030	150	3,604,500
Total visitors charged with WTP of local tourists	24,030	82.63	1,985,599
Total visitors charged with WTP of foreign tourists	24,030	128.64	3,091,219
Two-tiered pricing system			2,209,438
Local tourists charged with their expressed WTP	19,165	82.63	1,583,604
Foreign tourists charged with their expressed WTP	4,865	128.64	625,834

*The annual average exchange rate in 2010 is PhP45. 11 per US dollar

While the above revenue figures are derived from a WTP study, the final amount of the user fee has to be agreed upon by all parties concerned (Tabien, et.al 2008). Public consultations must be conducted, first to assess people's reactions with respect to this economic instrument and secondly to agree on the most feasible amount to be paid. A transparent consultative process must be used and a clear legal mandate must also be sought for allocating the fund.

Allocation of User Fee Revenue to Various Uses

The purpose of the environmental fund is to protect and improve the quality of the recreational resources and environment in Sagada. While initial cost for recreational parks may be too high to be recovered through fees, revenues can be generated to cover operating costs. User fees also provide a fair and efficient policy tool to manage the consumption of these goods.

Using the revenue figures in Table 1 as basis, a total of 157 tourists, consisting of 106 local and 51 foreign tourists[2] were interviewed to elicit their preference for the uses of the fund. Positive public attitude is an important component of a cost-effective user pays system because public support for user fee structures is directly related to the level of compliance (Bowlby, et. al 2001). Table 2 shows that among local tourists, education and awareness got the highest percentage (32%) followed closely by the improvement of facilities of various recreation sites (30%). The same preferences were shown by foreign tourists, although in the reverse order.

Education and awareness is very important for both groups to ensure preservation of the site. Both groups openly expressed their concern with the desecration of burial sites and vandalism on caves. Local tourists consider the stalactite and stalagmite formation in the caves as one of the most important attractions of Sagada however not every visitor

understands how fragile these stone formations are. Some tourists who went on spelunking in the cave took chips or inscribed their names in the stone formation. The issue of desecration of burial sites is raised because in the past some less knowledgeable visitors forcibly opened the wooden coffins and took pieces of bones for souvenir. Such action is frowned upon by tourists especially by the foreigners who demand for the original and authentic elements of a destination's culture. The natural and cultural heritage of a destination is the main motivation for a tourist's visit, and this is especially the case for nature and cultural tourism. The outstanding natural and cultural features of a destination are those which make a place like Sagada special and worth a visit. Some tourists suggested that guides must play a significant part in education by ensuring that tourists understand the rules before starting a guided tour.

The improvement of facilities may come in the form of safer tracks, viewing decks and clean restrooms, with the condition that the design and materials harmonize with the physical attributes of the site. Improvements to be introduced must not destroy or substantially alter the natural condition of sacred places and scenic spots. Preferably, improvements on sacred places must seek the favorable recommendation of the community elders. Likewise, tourists prefer the craggy and wild character of the sites to fully commune with nature. Experiencing the geologic features and natural beauty in the context of the whole landscape of Sagada makes the visit to this destination special.

Preferences were also shown for waste minimization and clean-up, water management, capability-building and certification of tour guides. Some tourists shared their observation that plastic bottles and food wrappers were scattered along the way in some sites. This was confirmed by the members of the Sagada Environmental Guides Association, who claimed that by the end of the tourist season, they assist the local government on a voluntary basis in clearing the accumulated garbage, otherwise these contribute to flooding in the rainy season. The water shortage problem is felt at the height of the tourist season when water consumption is high resulting to water use conflict between lodging houses and local residents (Dulnuan 2003). Visitors shared that water pressure was already low even in the lodging houses. The last two issues have implication on the determination of how many guests are manageable in terms of waste disposal and water supply facilities. It can be argued that communities like Sagada can market itself as a destination with minimal tourist amenities, but basic infrastructure is required both for visitor convenience as well as for resource protection.

Some amount must also go for response programs to defray the cost of response actions to accidents and disasters. Some tourists suggested earmarking a portion of fees to be used for study and review purposes and for administration and management. In this way the charging department or agency would be better able to respond to a growing demand for its service (Bowlby and Gilbert 2001).

Table 2. Preferences of tourists for the allocation of fund

Use	Local tourist		Foreign tourist	
	Number	**Percentage**	**Number**	**Percentage**
Education and awareness program	35	32	18	35
Improvement of facilities of various recreation sites	33	30	19	38
Waste minimization and clean-up programs	26	25	12	24
Integrated water resource management	17	15	9	18
Capability-building and certification of tour guides	19	18	8	15
Response actions to disasters	21	20	13	25
Research and review purposes	8	8	6	12
Administration and management	7	7	5	9

Management of the User Fee System

Respondents were also asked to choose their preference among three options for managing the fund. An overwhelming majority expressed their choice for a council composed of stakeholders in the community. The council can serve as the main governing body of the fund comprising of members coming from representatives of the local government unit, guides associations, academe, religious sector and indigenous communities. The Council is responsible for developing, adopting and evaluating the operational policies and programs for activities to be financed by the fund, as well as reviewing and approving the work program and projects submitted for approval.

The choice for a non-government organization or private entity managing the fund was expressed by 18 percent of the local tourists and 16 percent of the foreign tourists. There are three NGOs involved with the tourism industry in the community, (i) the Sagada Environmental Guides Association (SEGA), (ii) the Sagada Genuine Guides Association (SGGA), and the Sagada Association of Hotel, Inn and Restaurant Operators (SAHIRO). For years since the early nineties, the environmental fee in the amount of ten pesos had been collected and managed by SEGA, however since 2007 collections of tourist fees are directly remitted and managed by the municipal government.

If a new user fee system is to be implemented, then there is a need to revisit the management of the user fee revenues. Since this is a trust fund, it must be off limits to purposes other than the designated purpose. The council charged with administering the funds must comply with the intended purposes of the funds and with the policy choice of supporting environmental efforts. There must be no opportunity for the legislature of the LGU to transfer funds away from environmental programs during times of budget shortfalls. This has been the experience of funds whose administration is dominated by government, where temptation to abuse the fund is too much to resist (Bowly, et.al, 2001). A good example is Nigeria where the fund to address flood, erosion and desert encroachment which are the commonest environmental disasters that Nigeria faces were used for withdrawals and loans to agencies and persons, mainly irrelevant to objectives of the fund (Vanguard 2011). Therefore, taking money from special purpose funds to bolster the general fund or making up for shortfalls elsewhere could have devastating consequences on the natural heritage of Sagada.

Table 3. Preferences for tourists on the management of the user fee system

Management Mechanism	Local tourist		Foreign tourist	
	Number	Percentage	Number	Percentage
LGU thru Tourism Office	16	15	6	12
NGO (SEGA, SGGA, SAHIRO)	19	18	12	24
Council composed of stakeholders	71	67	33	64

SUMMARY AND POLICY IMPLICATIONS

The study has drawn attention to the application of market based instrument in the sustainable development of tourism in Sagada. The development of a user fee system was analyzed taking into consideration the existence of a valuation study that estimated the willingness to pay of tourists for nature's services in the site. It should be noted that some of the fundamental causes underlying the loss or unsustainable use of natural resources resides in the fact that societies have failed to value correctly the environment and the goods and services it provides and sustains. The WTP estimates are indicative figures which can possibly be used in the determination of potential revenue source for environmental protection since they approximate the value of nature's services in Sagada and can be the basis of a more rational fee for visitors. While the LGUs' fear that charging higher fees may drive tourists away is understandable, it should be pointed out that such a fee captures and reveals costs and benefits that exist but may not be recognized by potential stakeholders. Sagada can adopt a single pricing system for its user fee or it can explore the option of a two-tiered pricing system with lower fee for locals and higher fee for foreign tourists. Likewise, the potential of having a pricing scheme per tourist spot/site should be considered. Those which need more maintenance and protection could possibly charge higher fees. This type of disaggregated pricing versus the "blanket" type of one price for Sagada needs to be explored further.

The study discussed the management of potential revenue from the charging of a rational user fee. The administration of the fund pointed to allocation for various uses such as education and awareness, improvement of facilities, waste minimization and clean-up, capacity building and certification of guides and response to accidents and disasters. A portion of the fee can also be earmarked for study and review purposes and for administration and management. A council composed of various stakeholders was identified to be the institutional mechanism which should be responsible for developing, adopting and evaluating the operational policies and programs for activities to be financed by the fund, as well as reviewing and approving the work program and projects submitted for approval. Policy procedures and processes for implementation including information sharing and consultation, and the administrative arrangements for implementation and enforcement would best be conducted through this responsible management authority to ensure that the environment and the community benefit the most.

Notes

[1] At the time of the survey, the annual average exchange rate for 2010 is PhP45. 11 per US dollar (Philippine Statistical Yearbook, 2011).

[2] The number of tourist respondents was determined from the total visitors of Sagada in December 2011. The sample size (n) included in the survey was determined using Slovin's formula as follows:

$$n = \frac{N}{1+Ne^2}$$

where: n = sample size;
N = total number of visitors in the area in December 2011
e = desired margin of error, 5 % in this study

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