Religious Tourism Assessment and Carrying Capacity: The Case of National Shrine of Saint Padre Pio in Batangas, Philippines

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Abstract - This study in National Shrine of Saint Padre Pio, Batangas, Philippines aims to assess the religious tourism and carrying capacity of the area where survey and key informant interviews were used to gather information like church structure, rules and regulation of the shrine, as well as sociodemographic profile of the tourists/visitors. The study revealed that majority of the 120 respondents in the area are young adults in the age group of 20-25 years old that have a monthly income of 200 USD (PhP10,000.00) and below. Church, healing, family bonding and recreation are the top reasons of the tourists in visiting the area. Mode of transportation is mostly by the use of private vehicles specifically cars and motorcycles. Using the formula of Boullon and Limit of Acceptable Change, the carrying capacity for the Shrine was computed to be 1,720 (upper limit) and 431 (lower limit) in the assumption that 8,000 square meters is being utilized. With the growing population volume of visitors, environmental concerns like orderliness and cleanliness, specifically in terms of solid waste management must be included in the set of rules and regulations of the National Shrine so that environmental degradation in the area can be minimized.

Keywords: religious tourism, carrying capacity, environmental concern

INTRODUCTION

Institution is defined as a society or an established organization for an educational, social, religious or similar purpose that is working together for a common goal. Church is an example of religious organization representing an institution. According to Williams [1], the word church in the Bible comes from the Greek word "ecclesia", which means a called out company or assembly. Church is also an association which have its own belief system, rules, norms and structure.

Catholic Church also known as Roman Catholic Church is the biggest Christian church in the world. Every year, holy week is being celebrated by this church organization. As part of this church activity, pilgrimage is being observed by the Catholic members by visiting the different Stations of the Cross. This customary activity by its members is considered as religious tourism.

A kind of tourism wherein people travel together as a group or in individual for leisure, fellowship, pilgrimage or missionary purpose is what religious tourism is all about. It is commonly known as "spiritual" or "faith" tourism. Rinschede [2] defines religious tourism is as the form that is exclusively or strongly motivated for religious reasons. He classified religious tourism in various forms such as short term, long term and organizational form. The short-term religious tourism is distinguished by excursions to nearby pilgrimage centers or religious conferences. The long-term describes visits of several days or weeks to national and international pilgrimage sites or conferences. Organizational forms of religious tourism can be distinguished by definitive characteristics such as number of participants, choice of transport, seasonal travel, and social structure.

"The religious person is one who seeks coherence and meaning in this world, and a religious culture is one that has a clearly structured world view. The religious impulse is to tie things together---All human beings are religious if religion is broadly defined as the impulse for coherence and meaning. The strength of the impulse varies enormously from culture to culture, and from person to person" [3].

Under cultural tourism, religious tourism is especially categorized and segmented [4]. There are

two types of tourism according to Nieminen [5] it includes, mass tourism and niche tourism. The "large-scale phenomenon, packaging and selling standardized leisure services at fixed prices to a mass clientele of religious journeys would pose a number of issues for discussion relevant to attracting religious tourism and may suggests new aspects to investigate in the religious tourism realm [8].

includes, mass tourism and niche tourism. The "large-scale phenomenon, packaging and selling standardized leisure services at fixed prices to a mass clientele referred to as the mass tourism while Niche tourism, is understood to cater to more specifically defined groups where individuals are identified by the same specialized needs or interests for certain products. Niche tourism can further be divided into five different segments. Finally, cultural tourism is categorized into micro-niches, where religious tourism also belongs.

Different tourism destination have its own carrying capacity. This important to be observed so that the maximum capacity of a place can be monitor, so that it will not be maintain its good condition over time.

The Carrying Capacity Network (CCN) defines carrying capacity as "the number of individuals who can be supported in a given area within natural resource limits, and without degrading the natural social, cultural and economic environment for present and future generations". The carrying capacity of any given area might change for the worse when the environment is degraded. Due to the increasing pressure on our natural environments brought by the increasing population, the concept of carrying capacity has gained so much attention. In tourism, the carrying capacity, in its most traditional sense, refers to the maximum number of tourists or tourist use that can be accommodated within a specified geographic destination [6]. The capacity indicators that can be used to set the "limit", "ceiling", or "threshold" which tourism should not exceed include, but not limited to, volume, density and market mix.

The carrying capacity, as a planning tool, is important in many tourism areas in the Philippines which experience threats due to anthropogenic interventions, biodiversity loss, and climate change [7]. This is important in order to make the operation economically viable and ecologically sustainable. The recent policies in the country that will help protect our ecotourism sites include the Executive Order No.111 (Guidelines for Ecotourism Development in the Philippines) and the RA 9593 (Tourism Act of 2009).

For the significance of the study, understanding the historical and cultural importance of a religious site for tourism and its carrying capacity would give rise for its appreciation among people and this can be a key for site preservation, conservation and proper management of the area. In sacred site management and marketing of religious tourism, consideration of assessment of demographic characteristics, religiosity and frequency

OBJECTIVES

The study aims to assess the religious tourism and carrying capacity of the National Shrine of Saint Padre Pio in Batangas. Specifically to (1) to determine the socio-economic and demographic characteristics of the visitors, (2) to determine the institution's guidelines, norms and structure, (3) to determine the carrying capacity of the National Shrine of Saint Padre Pio, and (4) to identify and draw possible recommendation to improve the present religious tourism management system.

FRAMEWORK



Figure 1. Framework

Figure 1 above shows how religious tourism or tourism in general-proceeds. The two-way arrow on top shows the ever-expanding tourism activities of The National Shrine of St. Padre Pio as evidenced by its rapid expansion and development since the declaration of which as national shrine in 2015. Tourism as literatures say has its development phases. Butler's Tourism Area Life Cycle (TALC) identifies six (6) phases for tourism activities. These phases are

exploration, involvement, development, consolidation, stagnation and rejuvenation/decline. The case of St. Padre Pio is placed overarching the exploration and involvement stages. Exploration as visitors of the place come more as the place as seen as responding to their religious needs. But involvement also as Butler explains this stage as visitors come en masse and usually in groups. However at this time the Shrine sees management to be more organized as revealed by the key informant interview to the church staff.

The current state of the Shrine is somehow "balanced" so to speak because it is still new. However, fact has it that tourism impacts both social and ecological systems. There are benefits and ill-effects the Shrine brings. The identified social favors the Shrine brings are provision of venue for families and groups to bond more and socialize, provides economic opportunities for the locals, employments to name a few. But on the other side, the Shrine also triggers traffic congestion, noise pollution, issues of corruption and more. On the ecological systems, problems on waste generation both solid and water were revealed. Notwithstanding the GHGs emissions given the overall energy usage of the Shrine.

Now, the Shrine is seen on top of an arrow, illustrating a system on a "tipping point". That without a sustainable religious tourism, The National Shrine of St. Padre Pio would suffer "decline". This decline according to Butler is marked by "disastrous economic and environmental consequences".

The following statements show how National Shrine of St. Padre Pio immense popularity worldwide: from measly over a hectare of donated lot in 2003, it is now 6 hectares; from just one main church that caters 2500 church goers all at the same time, it has an additional two other structures: the extension which can accommodate 1000 people and the newer addition called Divine Mercy Sanctuary for Pilgrims which sits 3500; and because it gains attention global, the Shrine is chosen as venue for both local and international activities of the Catholic Church. One of these activities was the 2017 4th World Apostolic Congress of Mercy (WACOM 4). This international gathering, according to the KII informant, was attended by 15,000 people.

SCOPE AND LIMITATIONS

The study focused on the assessment of the religious tourism and carrying capacity of Saint Padre Pio in Batangas. Information gathered were only limited to the visitors within the juridical boundary of the National Shrine in Batangas. The guidelines, norms and structure is limited only on the information given by the National Shrine of Saint Padre Pio, information from literature review and observation of the researchers. The data in the computation for the carrying capacity is only limited to figures given by the management of the Shrine and base on the estimation of the researchers.

STUDY SITE AND METHODS Study site

According to the website of the Parish and National Shrine of St. Padre Pio, it was established with a vision to build a sanctuary that is centered on Jesus Christ, as inspired by St. Padre Pio. Its mission is to provide pilgrims with a place that draws them to encounter God and reconcile with Him, be evangelized, have faith in His generosity, and to know St. Padre Pio, being the patron saint. It is considered as the first national shrine in the Archdiocese of Lipa. It was originally recognized on June 28, 2003 as the parish of San Pedro, Sto, Tomas, Batangas, when His Eminence Gaudencio Cardinal B. Rosales, D.D. Archbishop Emeritus of Manila served as the Archbishop of Lipa.

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Figure 2. Aerial view of Saint Padre Pio on 2006 (left) and 2016 (right)

Image from Google earth in Figure 2 was acquired during the years 2006 and 2016. The figure shows the before and after construction photos of Saint Padre Pio. It can be observe the depletion of the agricultural land in the area. Land conversion occurred for the expansion of the National Shrine of St. Padre Pio's site.

METHODS

The information for the study were derived using primary and secondary data collection. Primary data came from the survey through personal interviews of the tourist and key informant interview with the representative of the Shrine. Secondary data were collected from existing literature and other related studies. The formal field data collection of the researchers was conducted in April 2018. Secondary data on institutions in religious tourism, studies on carrying capacity and other related literature were used. Secondary data was also used to determine all the facts and figure in the National Shrine of Saint Padre Pio.

Sample Size and Survey

A total of one hundred twenty respondents were selected through convenience sampling. Respondents came from the tourists visiting the Shrine. Convenience sampling also known as availability sampling is a specific type of non-probability sampling method that relies on data collection from population members who are conveniently available to participate in study [9]. This sampling method involves selecting participants in a convenient way, wherein you can easily look for them in the area of the study.

The survey questionnaire consists of personal information, economic status, perception about the Shrine and the reason of their visit. Questionnaire was developed to capture all the needed information.

Key informants interviews (KII) with the in charge and volunteer workers in the accommodation of guests in the Shrine were conducted. KII was done to know the important information about the National Shrine.

Analysis

Carrying capacity considerations revolve around three basic components or dimensions: physical-ecological, socio-demographic, and political-economic. These dimensions reflect also the range of issues considered in practice. In considering carrying capacity the three components are assigned different weights or importance in different destinations [10]. The review of available literatures provided the information used in the determination of the carrying capacity of National Shrine of Padre Pio.

Carrying capacity and Total Daily Visit were determined using the Boullon's Carrying Capacity Mathematical Model (BCCMM). Average individual standard values that was used came from Carrying Capacity Guidelines used by the Florida Department of

Environmental Protection, Division of Recreation and Parks. Equations of carrying capacity, rotation coefficient and total visit are shown below.

Carrying Capacity = area used by tourists/average individual standard

Rotation Coefficient = no. of daily hours area is open to tourist/average time of visit

Total Daily Visit = carrying capacity x rotation coefficient

RESULTS AND DISCUSSION

Table 1 shows the socio-demographic characteristics of the 120 tourist-respondents. This table gives background of the tourists visiting the National Shrine of Saint Padre Pio in Batangas, Philippines.

Table 1. Profile of the tourist-respondents in the National Shrine of Saint Padre Pio, Batangas, Philippines

Profile	Options/Categories	Percentage (%)
Sex		
	Male	50
	Female	50
Address		
	Batangas	32
	Cavite	3
Province	Laguna	24
	Metro Manila	23
	Quezon	5
	Bicol, Central Luzon,	
Region	Davao, MIMAROPA,	13
	Zamboanga Peninsula	
Age (years o	ld)	
	20-25	20
	26-30	19
	31-35	19
	36-40	12
	41 and above	30
Civil Status		
	Single	56
	Married	39
	Widow	3
	Separated	2
Educational .	Attainment	
	Elementary	2
	High School	29
	College	67
	Graduate	2

Table 1 (cont). Profile of the tourist-respondents in the National Shrine of Saint Padre Pio, Batangas,

Philippines

Profile	Options/Categories	Percentage (%)
Monthly Inc		
-	10,000 and below	51
	10,001 to 20,000	7
	20,001 to 30,000	26
	30,001 and above	16
Source of In	come	
	Allowance from relatives	14
	Business	12
	Salary	69
	Savings	2
	Pensions	3
Mode of Tra	nsportation	
	Public Utility Vehicle	36
	Private Car	64
Reason for V	/isit	
	Church	43
	Healing	27
	Family Bonding and	23
	Recreation	
	Pilgrimage	7

The tourist-respondents are comprised of fifty percent male and fifty percent female. Most of the respondents or the church goers that were interviewed came from Batangas (32%), Laguna (24%) and Metro Manila (23%). Some other came from the province of Cavite and Quezon and from the regions of Bicol, Central Luzon, Davao, MIMAROPA and Zamboanga Peninsula. Most of the tourists' age 41 years old and above. Since they have more time in visiting different places compares to young people. Fifty six percent (56%) are single and the remaining percentages are married, widow and separated. The study revealed that the sixty-seven percent (67%) of the respondents are college level/graduate and the remaining percentage are elementary, high school graduate (masters student and PhD students). Fifty one percent (51%) of the tourists' monthly income are PhP 10,000 and below while the remaining percentages are PhP 10,000 to PhP 20,000, PhP 20,001 to PhP 30,000 and PhP 30,001 and above. Sixty nine percent (69%) of the tourists have their salary as source of income while the others tourists' sources are allowance from the relatives, business, pension and savings.

The study shows that most of the visitors in the National Shrine used private vehicle with sixty-four percent while thirty-six percent used public utility vehicle. The study revealed that forty-three percent visits the Shrine because of church purposes, and the

other remaining percentage for healing, pilgrimage, family bonding and recreation.

Estimation of carrying capacity

Given/Assumptions:

Land Area – 16,000 square meters

Area used by tourist -8,000 square meters

Average visitors per Day 5,000(Sundays), 1,500 (Weekdays)

Number of days open – 365 days

Average stay of tourist -3 hours

Time open for masses—7am to 5pm (10 hours)

Carrying capacity and Total Daily Visit determination using the Boullon's Carrying Capacity Mathematical Model (BCCMM). Average individual standard values that were used came from Carrying Capacity Guidelines used by the Florida Department of Environmental Protection, Division of Recreation and Parks.

Carrying Capacity = area used by tourists/average individual standard

Rotation Coefficient = no. of daily hours area is open to tourist/average time of visit

Total Daily Visit = carrying capacity x rotation coefficient

Table 2. Computed Daily Carrying Capacity for Padre Pio Shrine

area requirement limits	area used by tourist (sqm)	average individual standards (sqm)	carrying capacity (individuals)
Lower Limit	8,000	5	1,720
Upper Limit	8,000	19	431
Lower Limit	16,000	5	3,441
Upper Limit	16,000	19	861

Table 2 shows that the carrying capacity is still observed in the lower and upper limit based from Carrying Capacity Guidelines used by the Florida Department of Environmental Protection, Division of Recreation and Parks (area limit standard 4.65 square meters as for the lower limit and 18.58 square meters for the upper limit) even if the total land area usage is 50% and 100% during weekdays because the average visitor is 1,500 per day. On the contrary it exceeds the carrying capacity during Sunday and if the basis is the upper limit because the average visitor is 5,000, therefore cuts off during Sunday is recommended in order to minimize congestion.

Standard Total Daily Visit for Padre Pio Shrine

Table 3. Computed Total Daily Visit for Padre Pio Shrine

area requirement limits	rotation coefficient (3hr stay)	total daily visit (3hr stay)
Lower Limit (8000 sqm)	3.33	5,735
Upper Limit (8000 sqm)	3.33	1,435
Lower Limit (16000 sqm)	3.33	11,470
Upper Limit (16000 sqm)	3.33	2,870

Presented in Table 3 are the values needed in order to compute for the standards total visit by using the carrying capacity and the rotation coefficient which is the daily hours the area is open to tourist divided by the average time of visit. The formula for the total daily visit is simply carrying capacity multiplied by rotation coefficient. With reference to the standard used by Florida Department of Environmental Protection, Division of Recreation and Parks, the area requirement for tourist activity is 4.65-18.58 square meters. If we use the lower limit the carrying capacity is still observed for during weekdays and Sundays even if the area is in 100% usage. On the contrary if the upper limit is used carrying capacity during Sundays is not observe giving an average visitor of 5,000 persons and if each person stays for an average of 3 hours.

CONCLUSION AND RECOMMENDATION

Tourist-respondents in the area are majority young adults in the age group of twenty to twenty-five years old that have a monthly income of ten thousand pesos and below. This is because in this stage of life, youth enjoy doing adventure and activities like going to different places that have significant features in the country. Church, Healing, Family bonding and Recreation are the common reasons of the visitors in visiting the area. Mode of transportation are mostly by the use of private vehicles specifically cars and motorcycles.

As a parish church, National Shrine of St. Padre Pio National Shrine follows the Cannon Law that is enforced by the hierarchical authorities of the Catholic Church in regulation of the external organization and governance and to direct order of activities of Catholics toward the mission of the Church. Its organizational structure shows order as the Pope to be

higher authority with the clergy and the laity. Norms and guidelines has been standardized all over the Catholic Church in the world in observance of attending holy mass that shows mass etiquette that also been applied in Padre Pio these are as follows fast before mass, no food and drink in church, men take your hats off, don't chew gum in church, cross yourself with holy water on entering and leaving the church, dress modestly and appropriately, show up at least a few minutes early, cell phones should never be used in mass for calls or texting, don't sit on the edge of the pew if you sit down before others, when we enter and leave church, genuflect toward the tabernacle, please be quiet while in church, take loud children to the back, no bulletin reading during mass, respect boundaries others may have, bow before receiving holy communion, do not receive from the chalice if you are sick, do not leave early, pray after mass and leave quietly.

The carrying capacity for Padre Pio Shrine was computed to be 1,720 and 431 for the upper and lower limit respectively in the assumption that 8,000 square meters is being utilize while the carrying capacity for 16,000 square meters is 3,442 and 861 for the lower and upper limit respectively. The Padre Pio Shrine plays a very vital role in the lives of the people especially the devotees aside from being a popular tourist-religious attraction. For the standards total daily visit the lower limit is 5,735 and 11,470 persons for 50% and 100% usage of the area respectively. For the upper limit the standard total daily visit is 1,435 and 2,870 persons for 50% and 100% usage of the area respectively. In conclusion the shrine can accommodate visitors except for Sundays if the upper limit is the basis because it exceeds the carrying capacity.

The beauty of Padre Pio Shrine should be maintained. Computation of the Carrying Capacity is important to determine the limits of our environment and to minimize degradation. This also serves as a good reference or basis for the creation of environmental/tourist policies. Carrying capacity is needed to create environmental policies of different agencies or institutions. Questionnaires and surveys should be done to determine the observations, experiences, and recommendations different visitors.

Surge in pilgrims or visitors are observed in the last years. The Shrine admits problems in the management of the site both socially and environmentally. The barangay where the shrine is located is encountering problems such as traffic congestion and waste management.

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The following are recommended in order to preserve Padre Pio Shrine, (1) maintain limited number of tourist per day (1500 tourist per day) except during Sundays because the average visitors is 5,000, it exceeds carrying capacity if the average time of stay per person is 3 hours, (2) formulate rules and regulation regarding solid waste management, and (3) conduct survey involving tourist to determine opinion on overcrowding, lack of space, nature disruption, and pollution in the area

With the growing volume of visitors environmental concerns like orderliness and cleanliness may also be included in the set of rules when in the premises of Padre Pio more specific for the solid waste management so that environmental degradation of the study site can be minimized.

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