ASSESSMENT OF ECOTOURISM MANAGEMENT IN A STRICTLY PROTECTED AREA OF A NATIONAL PARK: HANG EN CAVE, VIETNAM

Dr. Tuan Phong Ly
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ABSTRACT:

Since 2011, the National Park Management Board of Phong Nha Ke Bang National Park, Central Vietnam has been offering a new trekking tour that brings tourists to strictly protected areas within the core zone. The tour passes by the Ban Doong Village, treks into the primate forest, and visits the Hang En Cave, the second largest cave of the park after the Son Doong Cave. This unique ecotourism site has not yet been studied in the history of the Vietnamese park system. Thus, this study investigates the Hang En Cave site within the Phong Nha-Ke Bang National Park as a case study. The study describes, analyzes, and evaluates the ecotourism site and its operation in the Vietnamese park system using the management effectiveness evaluation framework of Hockings, Stolton, Leverington, Dudley, and Courrau in 2006. This study contributes to the knowledge on ecotourism management in Vietnam. Practical applications of ecotourism site management in other regions and countries are also discussed in this paper.

KEYWORDS: ecotourism, management effectiveness, strictly protected area, national park, Phong Nha-Ke Bang National Park, Hang En Cave
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1. ECOTOURISM SITE IN A STRICTLY PROTECTED AREA OF A NATIONAL PARK

Ecotourism is a type of sustainable tourism that has experienced rapid growth in the background of global concerns on sustainability (Weaver, 2001). Ecotourism helps third world destinations, particularly Southeast Asian, find an answer to the classic deadlock: the need for profit from their tourism resources to earn foreign exchange without destroying those resources and thus compromising sustainability (Cater, 1993). However, a very real danger exists in viewing ecotourism as the universal panacea (Cater, 1993; Orams, 1995). Given the difficulties in defining ecotourism and in measuring its outcome, the appeal of ecotourism has been increasingly tarnished (Mastny, 2001). Weaver (2011) and Scott (2011) concluded that the efforts of Southeast Asia to achieve sustainable tourism over the last 15 years have been slow and unimpressive. Furthermore, ecotourism reportedly faced many problems confronted by traditional tourism. For instance, eco-tourists were criticized for consuming similar resources and producing similar wastes (Wall, 1997). Many scholars criticized ideal statements that affirm ecotourism as a practice that could mitigate all tourism problems (Cater, 1993; Dodds & Joppe, 2005; Parnwell, 2009; Wall, 1997; Weaver, 2001). Indeed, a growing evidence has demonstrated the negative effects of ecotourism around the world, which seem to indicate the nature of its usual business operations (Sirakaya, Sasidharan, & Sönmez, 1999; Wight, 1993).

Vietnam’s modern history has been one of constant political change, from the French colonization to the Vietnam–American War, from division to reunification, and from trade embargoes to subsequent reform (Lâm, 2000). These changes have affected tourism development (Cooper, 2000). In their search for tourism revenue, the Vietnamese government has relinquished some aspects of centralized control. Therefore, the local authorities are highly autonomous (The Government of Vietnam, 2006, 2010, 2012). One document of the Vietnam National Administration of Tourism indicates that a lack of synergy in the planning and investment of different sectors and regions, overlapping powers of ownership, and authorization procedures would confuse and delay the development of the tourism industry (Suntikul, 2010). Moreover, a roughly defined idea of ecotourism, one without detailed guidelines and principles with regard this new kind of tourism product under the doi moi policy, is another barrier that hinders the development of ecotourism (The Vietnam Parliament, 2005).
In 1962, a system of special-use forests (SUFs) was established in Vietnam, which was updated in 2003 and 2010. The up-to-date classification of SUFs includes four categories: (1) national parks (NPs); (2) nature conservation zones, including nature reserves and species or habitat conservation zones; (3) landscape protection zones, including historical–cultural relics and scenic places; and (4) scientific research and experimental forest zones (The Government of Vietnam, 2010). Certain changes could be found in the classification of Vietnamese SUF system, but NPs continue to play a crucial role and most of them operate ecotourism or nature-based tourism (Suntikul, Butler, & Airey, 2010; The Government of Vietnam, 2003, 2010). In other words, the majority of the discussions on nature-based tourism or ecotourism in protected areas (PAs) in Vietnam mainly refer to tourism development in the NP system instead of the other three categories (The Government of Vietnam, 2003).

In 2006, the SUF system of Vietnam obtained a revolutionary update in the management bodies of ecotourism activities in the parks and PAs. The first legal article dealt with the organizational methods of ecotourism activities in Vietnamese NPs, announced in Article 55 of the Decree No. 23/2006/NĐ-CP on implementing the Forest Protection and Development Law by the government (The Government of Vietnam, 2006). The same was then updated and re-developed in 2007 (Ministry of Agriculture and Rural Development, 2007) in 2010 (The Government of Vietnam, 2010) and in 2011 (Ministry of Agriculture and Rural Development, 2011). According to the new SUF policy, the National Park Management Board (NPMB) is the forest owner and has the right to manage ecotourism activities within a park under the following three different models. (1) The state-management model refers to the management by the NPMB. The Tourism Management Unit under the NPMB is responsible for managing the ecotourism business itself by establishing certain sub-units to manage the relevant ecotourism products within the park. The NPMB seldom manages any ecotourism site by itself. (2) The private-management model refers to the leasing of the forest environment to private groups or companies to operate a park’s tourism business. (3) The joint-venture model refers to the association of the public and private sectors and to other forms of investment (Ministry of Agriculture and Rural Development, 2007). The researcher names this new management phenomenon as the co-existing management model. The two or more management bodies are adopted concurrently. They manage the park tourism and recreational services in the same NP. However, this study is not focused on studying the management models of the Vietnamese park system.
While doing research at the Phong Nha-Ke Bang National Park (PNKB NP) in Central Vietnam, the researcher has found a significant phenomenon. Since 2011, the NPMB of PNKB NP has been operating a new trekking tour that brings tourists to the strictly protected area of the park. The tour passes by the Ban Doong Village, treks into the primate forest, and visits the Hang En Cave, the second largest cave of the park after the Son Doong Cave. This tour is special because it is the only tour that is directly managed by the NPMB; other tours are managed by the Tourism Management Unit or by private companies. Moreover, the tour claims to be the real ecotourism site in the park. The academic world is doubtful about the real ecotourism experience in Southeast Asian countries (including Vietnam), and distinguishing between Asian conventional tourism and ecotourism is difficult (Cochrane, 2009). The establishment of the Hang En Cave site calls for research because no literature has studied this subject in detail. To fill the knowledge gap, this paper describes and evaluates the management effectiveness of the Hang En Cave site. This study answers two major questions: (1) What is the Hang En Cave site in terms of context and planning? (2) How does the Hang En Cave site operate in terms of inputs, process, outputs, and outcomes?

This study primarily contributes to the growing body of knowledge by enriching the understanding on ecotourism site management within strictly protected areas in the Vietnamese park system. In addition, the assessment of management effectiveness of the site can guide emerging areas of planning and managing experiences in the ecotourism development of a park. Lastly, a regional analogy might allow transferability of the ecotourism management skills of Vietnam to other countries in Southeast Asia (Yin, 2003a, 2003b).

2. LITERATURE REVIEW

2.1. Definition of Ecotourism

In the three decades since the term ecotourism was first used in the English-speaking academic field by Romeril (1985), ecotourism has elicited significant attention within the tourism industry and literature (Weaver, 2005; Weaver & Lawton, 2007), sometimes appearing under the terms such as natural tourism (Boo, 1990; Ziffer, 1989) or ecological tourism (Ruschmann, 1992). Considering that ecotourism has been and will continue to be important in tourism worldwide, the United Nations declared 2002 as the
International Year of Ecotourism (Deng, King, & Bauer, 2002; Maclaren, 2002) and published the first issue of the *Journal of Ecotourism* in the same year (Weaver, 2005).

Certain important ecotourism definitions represent the leading idea of ecotourism. For example, the International Ecotourism Society in 1990 (The International Ecotourism Society, 2013) defines ecotourism as “responsible travel to natural areas that conserves the environment and improves the well-being of local people.” The Ecotourism Australia Association defined it as “ecologically sustainable tourism with a primary focus on experiencing natural areas that fosters environmental and cultural understanding, appreciation and conservation” (Ecotourism Australia, 2013). Despite considerable attention, an internationally agreed upon definition of ecotourism still does not exist (Deng, et al., 2002; Weaver, 2005). However, according to the conclusions of Blamey (1997; 2001) as well as Weaver and Lawton (2007), scholars have reached a near-consensus that ecotourism should satisfy three criteria. These include the following: (1) the attractions should be primarily nature-based; (2) tourist interaction with these attractions should focus on learning and education; and (3) experience and product management should follow principles and practices associated with environmental, socio-cultural, and economic sustainability ideas. Each criterion leaves sufficient room for interpretation and allows the industry to consider the appropriate application of each parameter (Weaver & Lawton, 2007). The conclusion of Blamey likely led to the development of different modes of ecotourism. For example, Weaver (2005) identified both a minimalist and comprehensive mode of ecotourism or a new theme in the literature characterized by the attempts to expand the boundaries of ecotourism beyond its original pattern in the mid-1980s as a nature-based form of unconventional tourism. These involve the inclusion of recreational angling as a form of ecotourism (Holland, Ditton, & Graefe, 1998; Zwirn, Pinsky, & Rahr, 2005), the trophy-hunting idea of Novelli, Barnes, and Humavindu (2006), or the consideration by Ryan and Saward (2004) of the possibility that redesigned zoos are non-captive habitats meet the criteria of ecotourism.

Miller and Kale (1993) argue that all forms of tourism might be considered as ecotourism depending on the extent of human responsibility implemented. “Ecotourism can only be achieved when the behavior of destination managers, stakeholders, and tourists is ecologically, economically, and ethically responsible. Such behavior should adhere to criteria which have sustainability as their primary objective” (Deng et al.,
2002, p. 424). These previous discussions show that the definition of ecotourism is important in leading ecotourism. However, the interpretation and operation of ecotourism by authorities and operators in actual practice is its primary determining factor.

2.2. Management Effectiveness Evaluation Framework

Information on management effectiveness is a cornerstone of good management. Using the discussion on the importance of management in parks and PA development, the World Commission on Protected Areas proposed the management effectiveness evaluation framework in 2000 to assess management effectiveness (Hockings, Stolton, & Dudley, 2000; Hockings, Stolton, Leverington, Dudley, & Courrau, 2006). The management effectiveness evaluation framework (Hockings et al., 2006) is defined as the following:

It is the assessment of how well the protected areas is being managed, primarily the extent to which it is protecting values and achieving goals and objectives. The term management effectiveness reflects three main themes: (1) design issues related to both individual sites and protected-area systems; (2) adequacy and appropriateness of management systems and processes; and (3) delivery of protected area objectives, including conservation of values (p. xiii).

Based on this framework, different systems using a range of evaluations tools or methodologies can be used to conduct evaluations at different scales and depths (Hockings et al., 2006). The management effectiveness evaluation framework is based on the idea that PA management follows a process of a management cycle with six distinct stages or elements, namely, context, planning, inputs, process, outputs, and outcomes (Hockings et al., 2006). A management cycle (adopted from Hockings et al., 2006) is described by the following: (1) begins with understanding the context of the park, including its values, threats that it encounters, opportunities available, stakeholders, management and political environments, and tourism site description; (2) develops through planning, including establishing goals, objectives, and strategies to conserve values and reduce threats; (3) allocates resources (inputs) such as staff, money, and facilities to work towards the planning objectives; (4) implements management
actions through accepted *processes*; (5) eventually produces goods and services (*outputs*), which should usually be outlined in the management plans and work plans; and (6) results in effects or *outcomes*, hopefully achieving the defined goals and objectives.

Hockings et al. (2006) confirm that good management needs to be rooted in a sound understanding of every single condition related to a park, including careful planning, implementation, and regular monitoring, leading to changes in the management if required. To fully understand the management effectiveness of parks (including a site within the park), researchers should ideally assess the six elements of the management cycle (i.e., context, planning, inputs, processes, outputs, and outcomes). Based on the above discussion, the conceptual framework to evaluate the management effectiveness of an ecotourism site within the park (i.e., Hang En Cave) is showed as Table 1. When conducting an evaluation, researchers should importantly recognize that each element may interact with the other five and should consider all that is needed to understand a comprehensive view of management effectiveness and to have greater explanatory power (Hockings et al., 2006; Leverington, Hockings, Pavese, Lemos Costa, & Courrau, 2008). The researcher evaluated each element of the management cycle (Hockings et al., 2006), through answering certain major questions and sometimes with certain follow-up questions that based on the national park context, the research purpose has been reached.

Table 1. Framework for Assessing Management Effectiveness of Ecotourism Site within a National Park

<table>
<thead>
<tr>
<th>Elements of Management Cycle</th>
<th>Context</th>
<th>Planning</th>
<th>Inputs</th>
<th>Process</th>
<th>Outputs</th>
<th>Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Focus of Evaluation</td>
<td>Assessment of importance, threats and</td>
<td>Assessment of park design and</td>
<td>Assessment of resources needed for</td>
<td>Assessment of the way in which management</td>
<td>Assessment of the outcomes and the extent to which they</td>
<td></td>
</tr>
</tbody>
</table>

14
Source: Adapted from Hocking et al., (2006)

3. HANG EN CAVE SITE OF PHONG NHA-KE BANG NATIONAL PARK: A CASE STUDY

PNKB NP is located in the western part of the Quang Binh Province, about 500 kilometers south of Hanoi and in the narrowest part of Vietnam between Laos and the Tonkin Gulf. PNKB NP is the largest limestone area in Asia and the second largest in the world, with abundant resources for tourism development (Nguyen, Dang, Nguyen, Nguyen, & Phan, 2006). The complete core zone of PNKB NP is recognized as a World Nature Heritage Site since 2003 under the Criteria VIII (Geological and Geomorphological) and became the fifth World Heritage Site in Vietnam (UNESCO, 2013). The related core zones are divided into three functional areas: (1) strictly protected area (64,894 ha); (2) ecological restoration area (17,449 ha); and (3) administrative and service area (3,411 ha). The buffer zone has a total area of 217,908.44 ha and includes 13 communes with a population of more than 64,000. The present study mainly focuses on tourism activities in the core zone because this area is an official NP and World Heritage Site.

Two types of NPs exist in Vietnam: (1) cross-provincial national parks, under the management of the Ministry of Agriculture and Rural Development, and (2) within-provincial national parks, under the administration of Provincial People’s Committee. PNKB NP belongs to the province-managed NP typology. Direct responsibility for the park’s daily operation and management lies within the NPMB, which is under the
authority of the Provincial People’s Committee of Quang Binh. One tourism management unit is under the authority of the NPMB, namely, the Phong Nha Tourism Centre, which is the most relevant unit that takes part in state-owned tourism management activities in the park. In addition, the park has several private-management units or companies (i.e., the Truong Thinh Group and the Oxalis Company) and one international non-governmental organization (i.e., The Deutsche Gesellschaft für Technische Zusammenarbeit or GIZ) concurrently working on tourism development businesses in the region, which are under the monitoring of the NPMB.

When the research was completed in 2014, only six tours or sites are found within the core zone (five sites are managed by the Phong Nha Tourism Centre and one site (i.e., Paradise Cave) is managed by the Truong Thinh private group) (Table 3). All of these six sites or tours are under the authority of the NPMB. Apart from those mentioned six sites, the Hang En Cave site is directly managed by the NPMB because of its unique features. First, the site is located at the strictly protected area within the core zone of the park. Second, the site only serves selected eco-tourists who are willing to pay for the pure-nature trekking tour. Third, the operation of the tour is flexible. The Phong Nha Tourism Centre, Truong Thinh Group, and Oxalis Company can operate the tour. However, the operation process needs to be based on the planned process of the NPMB. Lastly, all trips to the site need the supervision of the forest rangers from the Forest Protection Department.

3.1. Data Acquisition through a Single Case Study

The assessment of ecotourism site management in a strictly protected area is a complex phenomenon. Therefore, a rich contextual information study is necessary to understand the related reality. The single case of the Hang En Cave in PNKB NP was chosen for this study because of the following reasons. The idea of polycentricism is related to overcoming the pitfalls of traditional state-based governance. Therefore, state-managed parks may not be appropriate when compared to the province-managed ones. Furthermore, province-managed parks explicitly elaborate the power of empowerment and engagement. Therefore, one of the 22 province-managed parks can ideally become a case for this study. Among those province-managed parks, only PNKB NP is listed as a World Natural Heritage Site (UNESCO, 2013). The World Heritage status seems to give the NP more accountability in managing tourism and recreation in a sustainable
way (Hall, 2006). Moreover, the World Heritage Site has an endorsement effect: other parks that want to be included in the World Heritage List or want to improve their ecotourism management effectiveness can learn from the Hang En Cave site as a role model (Dean & Biswas, 2001; Ryan & Silvanto, 2009). More importantly, according to the managers of the NPMB, the Hang En Cave of PNKB NP is the only site that allows eco-tourists to trek within the strictly protected area at the moment when the research was conducted. Therefore, the site is the only object used to study the phenomenon.

3.2. Data Collection

The researcher conducted several studies regarding tourism and recreation management in this park (for anonymity reasons, the two citations are removed during submission but will be brought back after review). The researcher has longitudinally observed the changing system of the park’s management model since 2006, especially after the implementation of the new Vietnamese SUF policy about the co-existing management model (The Government of Vietnam, 2006, 2010), and has witnessed the transformation of the park’s management from the “old” to the “new” model. In 2011, the researcher went back to the park to collect data for his doctoral study about the co-existing management model and discovered the announcement of the start of the Hang En Cave site. This incentive signaled the researcher to conduct the current study.

Data for this research were collected in three phases: from 10 July 2012 to 13 September 2012, from 14 February 2013 to 15 April 2013, and from 23 March 2014 to 30 March 2014. The researcher stayed at the park for more than four months to build connections and develop rapport with stakeholders or informants in the park’s tourism management (Parameswaren, 2001). To facilitate the access to information for this case study, the researcher observed and applied the four-stage model of getting in, getting on, getting out, and getting back (Buchanan, Boddy & McCalman, 1988). Given the established trust, possible distortions in the data could be identified and corrected (Creswell, 2003; Li, 2004; Lincoln & Guba, 1985; Padgett, 1998). After building rapport in Phase 1, the researcher was considered as a temporary staff member by the NPMB. Therefore, he was invited to work as an English–Vietnamese interpreter and guide to take international eco-tourists trekking for a two-day, one-night trip to the Hang En Cave. The demand for this trip is not high at the time of the research, but the researcher was fortunate to guide one trip in each phase (i.e., in 2012, 2013, and 2014).
This separated arrangement could bring benefits related to reflexivity (Mason, 1996, cited in Liamputtong & Ezzy, 2005). As this research did not start with any propositions, the research instrument (i.e., semi-structured interview questions) was developed based on a literature review, the researcher’s personal experience, and the prompt ideas from field observations and documents. By dividing the data collection process into three phases, the researcher had an opportunity to pilot the interview questions or guides with different groups of interviewees in Phase 1, and he modified them if any inappropriate themes or concepts were found. Another benefit was having more time to build rapport between the interviewees and the researcher (Parameswaran, 2001).

Triangulation involves the investigation of a subject from two or more angles to enhance the reliability and validity of a research (Altrichter, Posch, & Somekh, 1993; Padgett, 1998). Notably, participation observation, documentation, and in-depth interviews were employed to capture relevant data to address the study’s objectives. In Phase 1, the focus of the participation observation was on the physical settings and the social interactions in the site. In addition, potential interviewees were approached. In Phases 2 and 3, the observation’s attention switched to the action and interaction with interviewees. In this study, most of the related documents were provided by some key gate-keepers before, during, and after the data collection period. They were used as a component of the data, which was put together with other data collected by other methods.

Qualitative research uses non-random methods of participant recruitment, or purposeful sampling (Hennink, Hutter, & Bailey, 2011). As the purpose of this study is to understand the eco-site within the strictly protected area of the park, those who are involved in the operation and management of the site are included in the evaluation. They include the following: program executives (i.e., Group 1- the NPMB’s representatives, who are the top leaders of the site), program administrators (i.e., Group 2 - officers and representatives of the Phong Nha Tourism Centre, the Truong Thinh Group, and the Oxalis Company, who served as operations managers), program staff (i.e., Group 3a - the staff of the Phong Nha Tourism Centre, the Truong Thinh Group, and the Oxalis Company, who served as tour guides and interpreters; Group 3b - local communities participating as logistic helpers and road-leaders), end users (i.e., Group 4 - eco-tourists), and auditing stakeholder group (i.e., Group 5 - forest rangers, who...
served as forest resource monitors). The number of interview participants for this study is determined by the principle of saturation (Glaser & Strauss, 1967). The point of theoretical saturation was also different because of the different characteristics of the stakeholder groups. However, the researcher stopped recruiting more interviewees within a group upon reaching information saturation, which means that the information collected begins to repeat itself (Hennink et al., 2011). Table 2 indicates the quantity of interviews for each group under the duration and stakeholder settings. A total of 26 in-depth interviews were conducted.

Table 2- Quantity of Interviews for the Five Groups

<table>
<thead>
<tr>
<th>Duration</th>
<th>Group</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phase 1</td>
<td>Group 1 - NPMB’s representative</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Group 2 - operations manager (Phong Nha Tourism Centre)</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Group 3a - tour guide</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Group 3b - logistic helper or road-leader</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Group 4 - tourists</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Group 5 - forest ranger</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td><strong>SUB TOTAL</strong></td>
<td><strong>11 interviews</strong></td>
</tr>
<tr>
<td>Phase 2</td>
<td>Group 2 - operations manager (Oxalis Company)</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Group 3a - tour guide</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Group 3b - logistic helper or road-leader</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Group 4 - tourists</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Group 5 - forest ranger</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td><strong>SUB TOTAL</strong></td>
<td><strong>6 interviews</strong></td>
</tr>
<tr>
<td>Phase 3</td>
<td>Group 2 - operations manager (Truong Thinh Group)</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Group 3a - tour guide</td>
<td>1</td>
</tr>
</tbody>
</table>
3.3. Data Analysis

This study applied a grounded theory approach for its data analysis (Glaser & Strauss, 1967). The grounded theory approach is informed by the steps favored by Strauss and Corbin (1998) for the theoretical guide of the method and by Hennink et al. (2011) for the method’s operational guide. Data analysis began shortly after the data collection was initiated, and it continued throughout the data collection process. Data transcription and translation were conducted in the field, but the verbatim transcripts were finished only at the researcher’s office in mid-May of 2014 because of the rich interview data sources. Twenty-six recorded interviews were turned into verbatim transcripts capturing both the words spoken by the interviewees and the researcher.

The researcher used NVivo 10 (Bazeley, 2007; QSR International, 2013) to help him store, organize, code, and manage the collected data. A systematic procedure of open, axial, and selective coding was followed as mentioned by Strauss (1987). This adoption allows theory to be generated from the data. To confirm the validity of the developed theory, the researcher applied the following techniques proposed by Hennink et al. (2011), including using consistency checks, returning to data, and using member-checking to validate concepts in the newly built theory.

4. MANAGEMENT EFFECTIVENESS OF THE HANG EN CAVE

4.1. Context

PNKB NP is full of potential resources for tourism development, especially for ecotourism (i.e., cave, forest trail, and indigenous communities). Since the
announcement as a World Heritage Site in 2003, the park witnessed the opening or reopening of certain new tours or sites apart from the classic Phong Nha- Tien Son Cave site (Table 3). However, no sites bring eco-tourists into the strictly protected area of the park for the real ecotourism experience yet. This limitation is the major reason leading to the opening of the Hang En Cave site in 2012 (Phong Nha- Ke Bang National Park, 2012).

<table>
<thead>
<tr>
<th>Year</th>
<th>Tourism Site</th>
<th>Location</th>
<th>Site Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>Nuoc Mooc Spring Eco-trail site</td>
<td>Administration and service area</td>
<td>Scenery value, eco-walk within the primate forest</td>
</tr>
<tr>
<td>2009</td>
<td>Eight Heroic Volunteer Cave site</td>
<td>Ecological restoration area</td>
<td>Spiritual value, a monument to worship Vietnamese martyrs</td>
</tr>
<tr>
<td>2010</td>
<td>Paradise Cave</td>
<td>Ecological restoration area</td>
<td>Dry cave value</td>
</tr>
<tr>
<td>2011</td>
<td>Chay River-Toi River</td>
<td>Administration and service area</td>
<td>Dry cave value and boat service on the Chay River</td>
</tr>
<tr>
<td>2013</td>
<td>1,500 meters deep in the Phong Nha Cave site</td>
<td>Administration and service area</td>
<td>Adventure tour into the deeper parts of the Phong Nha Cave</td>
</tr>
<tr>
<td>2013</td>
<td>New Phong Nha- Tien Son Caves site</td>
<td>Administration and service area</td>
<td>Dry and wet cave value, the reopening of the Phong Nha- Tien Son Cave after facility upgrading in September</td>
</tr>
</tbody>
</table>

Certain social, economic, and political factors influence the establishment of the Hang En Cave in the park. A trend is seen for ecotourism development in domestic and international markets as this term of tourism management can reduce the pressure on the use of natural resources and can create a sustainable management atmosphere. Many
ecotourism centers in the Vietnamese park system have started to operate ecotourism products in the core zone of the park. According to the representative of the NPMB, “Comparing with other parks, the ecotourism products of PNKB NP are limited and monotonous. Therefore, it is necessary to develop a significant tour or site that can be seen as a signature of the park or as of Quang Binh Province.” Not only can the site bring more working opportunities and income for local residents at Phong Nha-Ke Bang areas, but it can also reduce some pressure on the preservation of the World Heritage Site. Based on the above-mentioned reasons and factors, a feasible scheme of the establishment of the Hang En Cave Site was submitted by the NPMB of PNKB NP to the Provincial People’s Committee of Quang Binh in 2012. In March 2012, the Hang En Cave site application was approved and opened to the public (Phong Nha-Ke Bang National Park, 2012).

4.2. Planning

The main questions to be answered in the planning part are the following: Where do we want to be? and How do we get there? (Hockings et al., 2006). The NPMB intends to establish a signature trekking tour into the strictly protected area of the park, offering a real ecotourism experience. To achieve this objective, the NPMB developed the site or tour on legal and practical bases. The establishment standards of the site fulfilled all the legal and official arrangements of the UNESCO, the Vietnamese Tourism Law, and ecotourism activities management in the SUFs of the country (Phong Nha-Ke Bang National Park, 2012; The Government of Vietnam, 2010). For the practical basis, the model of the tour was designed based on the successful cases in Vietnam (e.g., the Sapa Trekking Tour and the Pu Mat NP trekking tour) and other countries (e.g., the trekking tours of Zion NP in the United States and of Gunung Mulu NP in Malaysia).

To test the feasibility of the tour, the NPMB has arranged 12 pilot tours from July 2011 to February 2012, which successfully received 87 tourists (with 76 international tourists). The tour received such a good feedback from the tourists, with its stunning primary scenery of the tour, professional environmental protection mindset, and service standard from the staff and forest rangers. In summary, the preparation of legal and practical bases and the feasibility tests confirmed that the NPMB is capable of monitoring and operating the site in the park. However, having the capability to manage and monitor the site does not mean that the planning is fully effective and sustainable.
The Vietnamese NPMB is considered as a young and scarcely developed system. The Vietnamese NPMB lacks management experience in sustainable tourism activities, especially after the decentralization of the governance power to the lower levels of the provincial government (Creswell & MacIaren, 2000; Phan, Quan, & Le, 2002; Suntikul et al., 2010). The planning aspect for the Hang En Cave has been interrupted here and opened to the public since March 2012. Under these circumstances, the researcher is concerned about the ability of the NPMB as seven months is such a short period of time to observe and test the site, which has an important location function as the Hang En Cave. Furthermore, because of the innovative feature of the site, the management planning and designing was conducted with learning-by-doing, based on the experience obtained from the 12 pilot tours. This method is a common solution of the management of the Vietnamese park system as every step in the park management is new to them, and they cannot find any reference to guide them through the adaptive management.

4.3. Management Process

With the management experience obtained from the pilot tours in this new ecotourism site, the NPMB has decided to operate the tour under two options. Option 1 is the two-day, one night trip (most of the tourists choose this option), and Option 2 is the three-day, two-night trip. The major difference between the two options is staying the second night at the Ban Doong Village, whereas the rest of the trekking path is the same.

The management process of the tour included the following steps. The tourists can book the tour with any one of the three official tour agents (i.e., the Phong Nha Tourism Centre, Truong Thinh Group, and Oxalis Company) in person or through email or website at least one day in advance for logistics and approval preparation. After receiving the booking order, the tour agent needs to do two things. First, it needs to check whether the climate and weather condition is appropriate for the tour operation as the trekking tour passes by some many streams and rivers in the primate forests and as the camp site is set up inside the Hang En Cave, which is beside a strong stream from Laos. Second, the tour agent needs to organize the staff that will serve and monitor the tour (including one staff member from the NPMB, one tour guide, one or two local helpers, and one forest ranger). Afterward, tour contracts and travel and work insurances are made and purchased for staff and tourists. After these two steps, the tour agent needs to show all the prepared documents to the NPMB’s representative for
approval. After obtaining the approval letter from the NPMB’s representative, the tour can officially form and depart as contracted.

The management process for Option 1 is discussed and analyzed here because its overwhelming selling records are based on the service experience of the researcher (three times of the data collection trips were also Option 1). In the morning (around 8 a.m.) of Day 1, the shuttle bus comes to pick up all the required staff and tourists from the Phong Nha Town Tourism Centre and rides along Road No. 20 Victoria to arrive at the Km. 37 of the Western Ho Chi Minh Trail Road. All staff members, tourists, and trekking materials (including food and drink for the trip) are loaded off at this starting point. From Km. 37 (the starting point), all people follow the downhill trekking trail (approximately four kilometers in length with a slope of 45 degrees). After the slope, the Rao Thuong Stream is seen, and all people can take a rest and eat lunch here (stop point no. 1). After eating lunch, the group keeps trekking for about five kilometers through different kinds of terrains (e.g., streams, slopes, and forests) before reaching the Hang En Cave (stop point no. 2). The staff guides the tourists by torchlight to discover the second biggest cave in the park, which has three entrances and is 1.7 kilometers long. Back from the cave tour, all people can swim at the stream along the cave entrance, eat dinner cooked by the local helpers, and rest at night. As the group sleeps by the stream, the staff members take turns in monitoring the level of the water all night for safety reasons. In the morning of the second day, after having a well-prepared breakfast, the group leaves the cave and treks back to the Ban Doong Village (stop point no. 3) to visit the Bru Van Kieu minority. After lunch at the village with the local community, the group treks back in the reverse way to Km. 37 (the end point). Around 2 p.m., the shuttle bus comes to pick up the group and sends it back to the Phong Nha Town.

After operating for three years, the NPMB has received no major complaint about the management process of the tour. Although it cannot be stated that this process is the best system and standards of management being followed, all agreed policies and procedures in place are being implemented well in the site. According to the feedback of the tourists, some minor improvements are needed in the operation of the tour. For example, it sometimes takes the group one or two hours to wait in front of the NPMB office for the approval letter. Some tourist rubbish is found at the stop points (i.e., nos. 1, 2, and 3) and along the trekking trail.
4.4. Inputs

The NPMB has avoided directly discussing the carrying capacity of the site. However, because of the adventure feature and the safety reason of the tour, the feasible scheme states that each group of tourists cannot accommodate more than 12 people in one trip (Phong Nha-Ke Bang National Park, 2012). According to the operations managers, the input of resources is based on the maximum served capacity. For effective management, the foundation of the inputs is invested in the following aspects: human resources, insurances, facilities, and equipment. All trips need to include the following fundamental staff to serve different functions and purposes: (1) one staff member from the NPMB, serving as the tour leader and supervisor; (2) one staff member serving as the tour guide (normally English-speaking, capable of interpreting knowledge about the site, and from one of the three official tour agencies); (3) one or two local helpers (depending on the size of the group), serving as logistics porter, road leader, and catering server; and (4) one forest ranger from the park, serving as the environmental, safety, and security monitor. The staff and tourists involved in the trip are required to purchase the Vietnamese working and tourism insurances before departure.

As the site is located within the strictly protected areas of the primate forest, building any new facilities for tourism development is not allowed (The Government of Vietnam, 2010, 2012). The Hang En Cave site has followed the Vietnamese policy in operating the ecotourism site within the SUFs. It has used the current natural resources to facilitate the needs of tourists with the assistance of environment-friendly, mobile camping equipment. As mentioned previously, three stop points are found along the trip, and no extra toilets were built to serve the tourists (except for the toilets in the Ban Doong Village, which were built by the local community). Camping equipment, food, and beverage materials were brought from the Phong Nha Town. However, the tourists are allowed to fish in the stream near by the campsite of the Hang En Cave. After cooking, no rubbish is allowed to be left behind at the camping side or at stop points.

Based on the assessment of the tourists, adequate investment has been made by the NPMB on the site facilities and equipment management. Most of the tourists feel comfortable to do personal cleaning in nature. However, no single signs or directions were found during this nine-kilometer trip from the starting point to the entrance of the
cave and in the reverse way back. The staff and tourists are both concerned about some potential risks of getting lost in the primate forest, although it has hardly happened.

4.5. Outputs
The major questions for output assessment are the following: Has the management plan and work program been implemented? and What are the results of management? (Hockings et al., 2006). According to the NPMB representative, after three years of operation, the Hang En Cave has implemented 90 percent of the actual plan, which means that most of the management plan and work programs have been implemented adequately. The NPMB representative states that most of the tours departed and operated as planned. However, some exceptional cases lead to the cancellation or interruption of the tour (e.g., the rising level of water in the cave, slippery roads after heavy rain, not have enough English-speaking tour guides or forest rangers to lead the trip). The reasons for the cancellation of the trip can be summarized into two major factors: the weather and climate condition and the human resource capacity. They have become the major barriers for the further development of the site.

4.6. Outcomes
The desired outcomes of developing the trekking trail include three major benefits: economic benefit to the park, social benefit to the minority group living in the site, and conservation benefit. The park claims that it has partly fulfilled the three benefits of management as planned. First, the operation of the site has brought some economic effectiveness not only for the local community and the PNKB NP but also for the national tax revenue (i.e., each tourist needs to pay 500,000 VND/trip, around 24 USD). The total annual revenue of the site in 2014 was 328,400,000 VND (around 15,640 USD) (the data of 2012 and 2013 were not published because of some statistical issues), and part of the tourism revenue was used to re-develop or maintain the environmental issues of the park. Second, the site has developed certain important social results. It has diversified the tourism products of the park and of the Quang Binh Province, and then it increased the working opportunities of the local communities, especially for the six families in the Ban Doong Village (as one of the resting points or stop points of the tour).
Lastly, the development of the site has enhanced the preservation work of the primate forest in the strictly protected area. During the trekking trip, the staff members of the NPMB and the forest rangers have cooperated in patrolling, detecting, educating, and punishing all activities of the local people and the tourists that violate the Forest Law of Vietnam. This supervising activity of the park management has contributed to the preservation of the integrity of the park, especially of the strictly protected area. When the Hang En Cave site did not operate, the park management rarely has a chance to contact local people (including the Ban Doong villagers) who use forest resources for living. Therefore, the site has strong educational functions to local people and ecotourists.

5. CONCLUSIONS
This study is a response to the call for more empirical studies investigating ecotourism development in Southeast Asia, especially Vietnam (Chon, 2000; Hitchcock, King, & Parnwell, 2009). While studying about the co-existing management model in the PNKB NP in Central Vietnam, the researcher had a chance to discover and study the special phenomenon, the operation of the Hang En Cave Site, which brings eco-tourists to trek into the strictly protected area of the park. Such arrangements exist in parks and PAs all over the world, but it has never occurred and has never been studied in a Vietnamese context. The main purpose of the present study is to describe, analyze, and evaluate the Hang En Cave Site by using the management effectiveness evaluation model of Hockings et al. (2006). It addresses the “what” and “how” questions about the ecotourism site. The study contributes to the ecotourism management literature with an example from Vietnamese NPs. More specifically, the study has developed an explanation of the operation of ecotourism sites in Vietnamese NPs, based on empirical data from documents, field observations, and in-depth interviews in the PNKB NP.

In 2011, the site has received 87 tourists for the pilot tours. However, the tourist arrival to the site has reached 821 tourists in 2014. Scholars show concern about some undiscovered risks of bringing tourists to the strictly protected area of the park, but the tourist arrival number and the result of the evaluation of the current management effectiveness does not show a major influence to the site. In fact, the desired outcomes of the site have been partly achieved after three years of operation. Not only can the tour bring a new and attractive ecotourism product to the park and the province or attract
international tourists to Central Vietnam, but it can also improve the living standards and preservation awareness of local people. The NPMB representative affirms that this way is the right action, and it is necessary to operate such a tour (personal interview in 2014).

The current success of the Hang En Cave as a tourist attraction displays a role model for other ecotourism sites in Vietnam to learn from, based on the six elements of the management cycle (Hocking et al., 2006). To bring a selected number of ecotourists to the strictly protected area of a park, park management needs to understand in particular the timing. In the case of PNKB NP, there is a need to understand the diversified needs of the tourism market, in parallel with the support of country policies and management requirements. In this context, the NPMB followed a feasibility plan to make the Hang En Cave site available to the public, based on the relevant legal and practical basis. After testing the plan in one year through pilot tours, the ecotourism site was opened to tourists. The key management process principle is learning-by-doing, as every step in the park management process is new to the Vietnamese park system. The NPMB input and updated relevant human resources, insurances, facilities, and equipment serving the tour. At the same time, the NPMB confirmed the outputs of the eco-site implemented. According to a NPMB representative, after three years of operation, the Hang En Cave site has implemented 90 percent of the actual plan. Last but not the least, the NPMB examined the outcomes of site management to ensure that it can reach the designed objectives. The Hang En Cave site has been partly reaching its planned three major economic, social and conservation benefits.

This study also offers ecotourism management implications to parks and PAs in similar contexts. The transferability of the management does not in any way mean a full copy of a new case in a new region because “analytical generalization” is deemed necessary in follow-up case studies (Yin, 2003b, p. 37). This generalization means that the researcher can provide sufficient contextual details of the fieldwork in Vietnam for readers to decide whether the prevailing environment is similar to another situation with which they are familiar and whether the findings can be applied justifiably to other cases (Lincoln & Guba, 1985; Shenton, 2004). In general, readers should attempt to transform or transfer the findings on the Hang En Cave site in Vietnam to theory that may also apply to other countries. However, they must pay attention to specific local contexts (Shenton, 2004; Yin, 2003b).
This study has several limitations. First, building rapport with the interviewees through a case study approach requires a longer time. Second, conducting in-depth interview is a challenge and calls for researcher experience. Third, despite the use of triangulation in data collection and analysis, reports and interpretation of a qualitative undertaking such as this case study necessarily reflect the perspectives of both the researcher and their informants. The study should not be read in complete freedom from the values, standpoints, and sometimes even bias of the researcher and the study participants. Lastly, studying the ecotourism site (i.e., the Hang En Cave Site) in Vietnam is still at an early stage. This limitation can be confirmed by the fact that the first operation of the site was in 2011. For future research, the ecotourism site could be longitudinally revisited when the design becomes more complete.
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