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Chapter

Why Could the “Hatun Ñan Orqupi Llamcama” Ecotourism Microcircuit, Apurímac-Peru, be Sustainable?

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Abstract

The purpose was to describe and illustrate the characteristics that give sustainability to the use of the ecotourism microcircuit Hatun ñan orqupi Llamcama. The design is non-experimental, linked to the case study design. The sample was the closed circuit of ecotourism resources located in Llamcama's town. The method applied was on-site with the satellite capture support for orientation, location of resources, and mapping of trails, added to assess the vulnerability of ecotourism resources, use of the interview technique. Sustainability focuses on: (a) organizing local tour operators, who could serve a maximum of 80 visitors a day and 400 visitors a week, at a ticket cost of 5 PEN per visitor, total revenue per week and month, will be: 2000 PEN and 8000 PEN respectively; (b) accessibility is good to moderate in high season, changing to low in rainy season; (c) the security in the transfer and internal route is high, the signaling exists; d) the resources are characterized by being geometric shapes or anthropomorphic or zoomorphic approximation in the relief, caused by the forces of rain and wind; added to cave formations.

Keywords: accessibility, administration, inventory, tourist resource, tour operators

1. Introduction

We understand by ecotourism microcircuit, a small and controlled space with passageways or trails, made up of a series of natural structures, which were created by nature due to the action of rain, wind, and tectonic movements over time, and which in view of the human being, it is a great opportunity to take advantage of the landscape, reach mystical places to exchange energy, spending the night to admire the sky, and the noises of nocturnal species, among other attributes. Indicate that in the Apurímac region, there are comparative advantages, which the region in question has, supported by the ecological, geographical, water, cultural, and archeological aspects [1].

Ecotourism resources exist, they are categorized with level two or more, which are identified as: natural sites and cultural manifestations. However, there are limitations in the tourism sector, especially in the ecotourism type. The reason why tourist resources are categorized at level two, according to the guide for the inventory and update of tourist resources of [2] present little connectivity regarding technological opening of digital communication, moderate land access by trail or affirmed road that arrives even the tourist resource itself, local operators that are not very developed, dependent on the central support plant or main city, limited marketing development and positioning of the tourist resource.

The ecotourism resources are contained in the peasant communal territories, under the legal norm Official Gazette [3] Law 24,656 and [4] Law 24,657, the first known as: General Law of Peasant and native communities; the second Law of Demarcation and Titling of communal and native territories; what was verified and described by [5] indicates that the peasant communities, through the communal assembly, approve the organization of the protection and conservation work, based on the consensus of programming of annual activities, which are fulfilled and guarantee the conservation of the various tourist resources and natural areas or protected reserves.

The Pampachiri district, contained in the Apurímac region, has a vast ecological and cultural heritage, from the archeological, natural, and experiential, whose state of conservation is heterogeneous, for the reason that some resources are exposed and close to road access and others with road access limitations; Likewise, although there is progress in the way of exploiting the ecotourism microcircuit through the formation of tourist committees (association), these present a series of difficulties, which are focused on customer service, the conformity of the service provided, the capacity to respond to unforeseen events, security during the internal journey, among others.

The microcircuit that exists, has the minimum services necessary to continue sustaining itself in a precarious way when providing the service. The peasant community has a certain level of interference regarding the control of these tourist resources, so vulnerability is low, but progressing, because it is subject to the way in which ecotourism resources are used. The problem is centered, on the existence of deficiencies in updating the inventory and in the way in which tourist resources are used, it is a space or area that has roads and trails that allow limited transit of vehicles, limitations in spaces or collection points, and waste evacuation, some deficiencies in control and security during the internal route, limitations in the existence of signage.

The general question of the investigation was: Will it be possible to take advantage of the ecotourism microcircuit "Hatun ñan orqupi Llamcama," district of Pampachiri? This resulted in formulating the following general objective: Describe and illustrate the characteristics that give sustainability to the use of the eco-tourism microcircuit Hatun ñan orqupi Pampachiri. The dimensions that built the research were: (a) the organization of local tour operators; (b) accessibility to and within the microcircuit; (c) security in the transfer, internal route, and signaling; and (d) the attributes of ecotourism resources.

The justification of the research project focused on two aspects: the legal-academic relevance, and the impact of the proposal for sustainability:

- a. Regarding the first, it is located within the UNESCO research area, area number 53, sub-area 53.11, research line 53.11.06 market study; within the Regional Research Agenda approved with Resolution No. 013-2015-GR-APURÍMAC-CR, economic agenda, tourism component, rural-community and archeological tourism thematic area, and line of research on the subject: Design of insertion processes and articulation of corridors and tourism products in new areas with tourism potential.

- b. The second, from the socio-economic point of view, in the medium term the ecotourism microcircuit will help to improve income and position the cities of Pampachiri and Andahuaylas, as cities with ecological, historical, and touristic potential of cultural. In addition, it will materialize with the increase in demand by foreign and national tourists, between the short and medium term.

The scope of the investigation is an extension of the first stage that focused on the San José de Chontaya annex of the same district, and a specification of the second stage, aimed at describing and strengthening the use with the difference of proposing the conditioning of tour operators, both located in the Llamcama Town Center.

The concepts of accessible tourism are taken, linked to the theory of alternative tourism, which contains ecotourism, one of them being what was stated by [6] who indicates that “accessible tourism allows people with access requirements, in mobility dimensions, vision, hearing and cognition, function independently with equity, dignity, through the delivery of universally designed tourism products, services and services,” (p. 519) in the concept of [7] who express that: “accessible tourism it is an activity that all people can access regardless of their abilities, thus enabling full participation and integration in society as a whole.” (p. 26) We close the concept stage, We close the concepts stage with [8], who specifies that: “accessible tourism must be understood from a global point of view, covering the set of facilities and operators that make up the tourist offer, delving into entertainment and leisure services, among others” (p. 59).

Based on what was established in the concepts of Accessible Tourism, the same background of similar investigations was continued, to strengthen the methodology, design, and comparison of results, these being:

Being the contribution of [9] they mentioned that tourism is an alternative to improve the quality of life of households in communities. Creating tourist routes is essential because they allow for expanding tourist activity, however; the final results depend on various actors, involvement, and coordination are essential. The investigation concludes that the tourist routes located in the province called “El Oro,” are not properly exploited, problems in tour operators, and the conditioning of tourist infrastructure by the local municipality. The methodology used was: documentary analysis, a historical-logical method, complemented with observation and interview.

Another perspective, by [10] states that protected natural areas and parks present benefits for environmental conservation; However, it offers opportunities for outdoor recreation and for the enjoyment-awareness of preserving the landscape, both associated, because they are linked by a variety of scales of improvement and economic use, such as the case of the socio-ecological system in which all resources interact, facilitating an ecotourism articulated with the support plant.

Public parks fulfill the function of strengthening ecological tourism, allowing biodiversity to be displayed and preserved, preserving small established ecosystems, allowing sustainability; However, for the case study, the results show little sustainability for the settlements, there is less development of marketing and advertising tactics; The final role of the state should be the design of a project to consolidate and recover nearby tourist resources, through the promotion of investment packages [11].

We have [12] from the investigation of the design of the ecotourism route in Coloso-Sucre; It focused first on identifying the obstacles related to the infrastructure of the tourism plant, the weak tourism promotion by the local municipality. He described the natural, historical, and cultural potential that Coloso-Sucre possesses; and concludes by proposing a descriptive design of the tour based on natural

attractions, history, customs, architecture, culture, and involving tourism service providers, with the promotion of the local municipality.

From [13] they indicated that the local municipality from 2006 henceforth, strengthened the creation of an ecotourism center as part of a development policy, based on the commercialization and promotion of rural tourism, influencing investment in infrastructure improvement and training to local residents, incorporating them into the economic model, as a lifestyle to increase their income, through the diversification of some productive activities, sustained businesses in kinship ties and geographical space.

Studies [4, 5] show us that peasant organizations are a semi-commercial economy, with decapitalized resources, frequent use of available eco-tourism resources, with limited projection regarding improvements or renewal, which do not allow the leap of growth, horizontal, as well as limitations in peasant education and organization. According to [6] the assets owned, are usufruct based on some characteristics made by [14] the perception of local communities about the development of ecotourism, it focuses on: (a) preserving cultural traditions, (b) sustainable community, and (c) planning and ecotourism management with state intervention. The results show a significant association between the attitude and the intention to preserve the cultural tradition with the planning and management of ecotourism.

According to [15], they influence that to expand and strengthen the tourist practice, first promote it, based on the implementation of a didactic medium as a tool, in such a way that good practices with the environment and sustainable use are disseminated; The results showed that over 50% are aware of what ecotourism is and 37% have difficulty understanding ecotourism.

The contributions of the authors, on the ecotourism route of the village of Shitabamba in the national park of Cutervo, Cajamarca [16]. The design focused on the active participation of the community, who formulated, based on their knowledge of the territory, the potential in tourism resources they possess. The methodology was based on unstructured interviews, complemented by the inventory methodology of the Ministry of Foreign Trade and Tourism. The research project provided the justification for the formulation of the Cutervo National Park.

Ref. [17] stated that the Canton of Tena has the potential for tourist resources, but that they do not have the conditions for development toward a tourist attraction, due to the absence of adequate infrastructure, which affects the well-being of the population, impediments to recover and strengthen culture, added to deficiencies in the population; the study proposes the design of a minor circuit, based on local businesses, with the focus of preserving the natural environment [17].

2. Methodology

This research has a qualitative approach, due to the characteristics of the study variable according to [18]; of the basic type, which allows us to provide current knowledge of the study variable from [19]. The design is non-experimental, linked to the case study design, because it analyzes the diagnoses, the characteristics, the accessibility, and the state of conservation of the ecotourism microcircuit. The description allowed us to propose modifications, and adjustments both in the microcircuit and in the planning of tour operators, this is supported by [18].

The population was the geomorphological and cultural system that contains the territory of the Populated Center of Llamcama, and the ecotourism resources sample, as exposed in [18]. The support to collect information was the inventory guide and

update of tourism resources of the Ministry of Foreign Trade and Tourism of Peru, approved in December 2018.

The data collection procedure was as follows: first, field trip for coordination with local authorities and signing of commitment documents setting a start date; second, induction talk with participants about the work that has been programmed to be carried out under the policy and guidelines on research of the José María Arguedas National University; third, training talk and review of the process in the field, carried out with the local authorities and the community organization; fourth, information gathering with the support of local authorities, for each tourist resource, the impression of satellite captures was used to identify the tourist resources, then on the Google earth platform measurements were made of the surface it occupied, likewise, we measure the distances with this tool and the support of GPS, we continue with the capture of photographs of flora and fauna species, we close with the data collection with a check sheet regarding the services provided and their level of quality; fifth, collection and summary of secondary sources to strengthen the interpretation and description, and sixth, systematization in the office.

3. Results

3.1 The organization of local tour operators

There are no hostels, lodgings, or restaurants of level or category from 2 to 3, in the indicated neighborhoods of the populated center. For this reason, tourists or visitors who arrive at Llamcama must choose three alternatives:

- a. The first alternative, is to spend the night in the district capital of Pampachiri, where there is a lodging infrastructure, and hostels, in regular to good conditions and even with complementary services, this will allow the tourist to rest easy, and can leave the next day, without the long journey from the city of Andahuaylas. There are restaurants, whose service is minimal because there is no variety in the gastronomic offer and restricted access to toilet service. There are no night games, or shows in the district capital Pampachiri; however, the interview with owners indicates that it can be implemented in lodgings and hostels.
- b. The second alternative is to stay overnight in Llamcama, this is possible if they agree with the authority to provide a local community or environment of the local municipality (saves lodging costs) followed by coordinating and agreeing on a food business with families known that provides the food service; It has minimum basic conditions for national or international visitors of the backpacker type, the need for overnight stays, is based on providing communal premises, which are conditioned with mattresses and blankets. Communal premises, in general, have several separate environments, and hygienic services in a regular state.
- c. The third alternative is to return to the city of Andahuaylas the first day, spend the night, and leave the next day at dawn to arrive at 9:30 am and continue with visits to tourist resources; this is tiring, but it can be tolerated by visitors who are not located in the third age or older adults; This will have to be done at least twice, at most three times. The city of Andahuaylas, has sufficient tourist infrastructure, varied, as well as places for recreation. Added to the fact that the land terminal and transport companies are located.

On the use of tourist resources by tour operators, they have implemented and conditioned the following: In agreement with the Directorate of Foreign Trade and Tourism, added to training, they installed the tourist ticket, which is executed as a statistical registration procedure and attention in two entrances: Huaccoto and Llamcama. At the moment the administration of the ecotourism microcircuit has two types of administration, to reduce the degree of conflict; the entrance of Huaccoto, exercises a first control and registration; and the Municipality of Llamcama the second control and registration.

The first entrance has a higher frequency of visitors compared to the second. The management or attention regarding the tourist orientation that is provided to know the attributes of the tourist microcircuit, focuses on the number of members per group per orientation service, which is a maximum of 7 to 8 members, who can be easily guided. This allows for a maximum average of 80 visitors per day and 400 visitors per week. If the cost of admission is 5.00 soles, the total income per week reaches 2000.00 soles (two thousand PENs) and per month a total income of 8000.00 (eight thousand PENs) will be obtained, this is achieved as a goal in high season between the months of May to October, because the low or rainy season is from December to April, and visits are reduced due to the inaccessibility of the carriage trails.

A social problem that is addressed by the Municipality of Llamcama, is to give guarantees and formalize giving job opportunities to mothers with dysfunctional families; abandoned, which is justified because of every 5 women between 1 and 2 present this difficulty in generating income for the family, this is done through a resolution act and delivery of identification clothing (vests) they are granted authorization to develop tourist orientation, previous training with tutelary institution; In addition, this singular group is immersed in earning a living in various activities. They are the ones who presented the greatest predisposition to start in the tourist activity; Likewise, these operators in tourist orientation, are the ones that present communication between the Municipality of Llamcama, and the Primary Care Health Center.

3.2 Accessibility to and within the microcircuit

To get to Llamcama, you start from the city of Andahuaylas, the section covers 114 km and a travel time of 3.20 hours, 85% of the section is paved national highway, then you enter by variant, affirmed road that includes the 15% of stretch. Llamcama is located between 25 to 30 minutes from Pampachiri. Access to ecotourism sites is regular, through defined paths, for people with full motor skills, and for those who have them partially, horseback riding can be provided. People with complete disabilities or invalids cannot take the services. To reach the archeological resources, they do not have adequate accessibility, and the paths in a regular state on a steep slope, with a long extension and pronounced fatigue, they allow you to reach the inaccessible peaks where the archeological resources are located. This tour can only be done by visitors with full motor skills and a state of health without respiratory or cardiac problems. The visit to the ecotourism circuit can be done as follows:

The first day, the closed circuit that starts from Llamcama, the ascent section is not very rough, we start in a southerly direction, we arrive at Wasa millpu, a cave that at the entrance is surrounded by a forest of cceñuas and outside the cave, the forest indicated the it surrounds, in addition, there are several entrances to enter the interior and start an internal walk. Outside the cavern there is a location signage in a poor state; Inside, it has conditioning works for limited access due to the conditions of the cave itself, there is no lighting to be able to continue beyond 150 linear meters (**Figures 1 and 2**).



Figure 1.
Forest of cceñuas. Forest of cceñua species, covers about four hectares, is bordered and inside there are spaces for camping, located in the Millpu sector, 30 minutes by car from the town of Llamcama.



Figure 2.
Chinkana Wasa Millpu. Nota. Entrance to the Wasa Millpu cavern, it has a length of more than 160 meters, with steep slopes inside, it forks into two entrances, both explored and in the process of improvement, located 30 minutes by car from the town of Llamcama.

Then we continue north, leaving for Huanca Raza or the place where the condors perch, this ecotourism resource can be seen from the base or can be climbed, allowing both positions to take pictures; Climbing to the summit is not very accessible, only people with complete motor skills can do it. When we reach the summit, we are 4300



Figure 3. *Huanca Raza. Nota. Close view of Hatun Huanca Raza, or known as the place where the condors rest and eat, has a single rugged access to the summit in a northeasterly direction, with a steep slope between 25° to 35°, located 20 minutes by car from the town of Llamcama.*

meters above sea level, it serves as a natural viewpoint; up to here, we have 3 hours of travel (**Figure 3**).

Then we continue in a northerly direction until we reach the signposted entrance to Chinkana Wiscacha, we walk up the marked path along the edges, the slope is on average 15° to 25° degrees, and the travel time to Chinkana Wiscacha is more than 20 minutes the almost 70 linear meters; When entering the chinkana, (cave) the path is narrow in sections, the rock is sculpted by the force of water and wind, it presents different shapes, the route is gently ascending, there is a presence of strong humidity in the environment, the time does not exceed 25 minutes, disabled people of any lower or upper limb cannot enter the cave, added that the elderly group over 60 years, cannot enter due to the degree of average humidity in the caves, which would bring respiratory and even pulmonary consequences, complements that in the internal route, there is always a watercourse (**Figure 4**).

Then we continue north toward the signposted resource of Awekillaqta, we travel about 25 minutes, to appreciate the terraces, protection, and shelter houses carved in the stone, with the presence of terraces. So far, we have 2 hours of travel and enjoy the landscape. Continuing, at the exit of the circuit we reach the first stone forest which can be reached in 10 minutes.

On the second day, we started from the town center of Llamcama, taking a shortcut to the east until we reached the Awekillaqta tourist resort, we continued on our way behind this tourist resort to move toward the Apu Ataccara and Cemetery, in a northeasterly direction, with respect to the Cemetery this Located at the foot of the indicated hill, which takes 10 minutes to arrive from Awekillaqta, among the attributes we find funerary constructions from different times, decoration styles based on culture. We continue, on foot, climbing the Apu Ataccara, bordering it, halfway up the slope and reaching archeological resources located at the summit, which takes an hour and a half, in addition to see the landscape, at the summit we stop for half an hour, up to here we have 2 hours and a half of travel. We continue southwest, first, we descend and then we ascend on foot toward



Figure 4.
Chinkana Wisccacha. Nota. Close view of the entrance below to the Wisccacha cavern, it has two accesses which are used for the internal walk, from top to bottom and viceversa, with a steep slope between 15° to 25°, located 5 minutes by car from the town of Llamcama.

the Piedra Corazón tourist resource, reached in 45 minutes, which is a lithic form, carved by the action of nature; wind and water. We return following the bed of the Llamcama stream, in a northeasterly direction, to reach the outcrop of Ccoñecc hot springs, near the town of Llamcama. The entire tour is 4 hours on the second day (**Figure 5**).



Figure 5.
Site Awekillaqta nota. Close view of the Awekillaqta sire, it has only one access, the road allows máximum access, with a steep slope between 15° to 25°, it contains buildings that were supported on rock formations, whose spaces inside were inhabited with limestone, outside the terraces on three levels, it is a site of several constructions, located 10 minutes by car from the town of Llamcama.

3.3 Security in the transfer, internal route, and signaling

The Llamcama ecotourism microcircuit offers a uniform transfer by the main national road, marked in several sections, with support points. Inside the resource, the trails and internal trails are conditioned with material from the area, it also has the installation of rest or rest points for visitors and tourists, it presents limitations in the conditioning of a waste classification collection or evacuation system Solid, 50% of the edges of the trails are signposted, with white stones embedded in the soil. Regarding the care and protection of the various ecotourism resources, there is progress as proof, it is the Awekillaqta resource, with a perimeter protection fence. The entrances have a control booth, which fulfills the function of a ticket office and the municipality of Llamcama, has a record book. The groups of visitors will be able to choose the package that is offered, these being:

- a. Tourist package “A”: Wasa Millpu Cave (Chinkana), Apu Huanca Raza, Wisccacha Cave (Chinkana), Awekillaqta, Stone Forest; from 9:00 a.m. to 2:00 p.m.
- b. Tourist package “B: Cemetery, Apu Ataccara, Heart Stone, Ccoñecc Hot Springs, from 9:00 am to 1:00 pm.

Within the security protocols during the trails, they present the following service and prevention measures: all community tour guides or tour operators must follow the established and marked path or path, accompanying the group, the community tour guide, that he has trained in guiding people. The community tourist guide knows about history, and geography for a better interpretation and also about first aid, for unforeseen



Figure 6.
Counselor and citizen security in microcircuit. Nota. Counselor and citizen security – Irma – at the Awkillaqta site by the municipality of Llamcama.

situations that may occur regarding the type of ecotourism route where the service is offered. The association of community tour operators was established based on the support of the Pampachiri District Municipality and the Llamcama Town Center, the Association of Llamcama Tour Operators (**Figure 6**).

3.4 The attributes of ecotourism resources

We find the natural sites called:

- a. Ccoñecc hot springs, which is an outbreak of thermal water south of the town of Llamcama, the flow level is permanent, the temperature is maintained in parameters of 20° to 30° degrees Celsius;
- b. Chinkana Wiscacha, a natural gorge located in the southwest direction, with a length between 60 to 70 linear meters whose route is zigzagging, ascends, and descends, the Stone Forest.
- c. In addition to cultural manifestations such as: first the Apu Ataccara, with archeological constructions, second the Awekillaqta archeological remains, Inca roads or carriage, intact with fences, and speed bumps, added to the native culture that is located in the Llamcama annex.

All the ecotourism attractions were formed by actions of nature, with the exception of the archeological zones, which are in the process of deterioration due to the interference of man and nature factors. In the archeological zone, the constructions have a circular shape with an inclination toward the interior, they settle stones on stones in some cases with clay or mortar with inputs from the place, and at the base large stones; each house is contiguous to a corral or space destined for another function that forms small groups of human settlements, there are also internal paths, which demonstrate the order of human settlement, added to the anthropomorphic evidence that exists in the Apu Ataccara.

4. Discussion

The recorded background, as a reference basis for the process and similar methodology, allows us to compare, and approximate results, in addition to taking considerations for the improvement of tourist resources, subject to current research, Llamcama Population Center is considered in this discussion, as it contains the units of analysis:

For the case study, we have continued to describe the potential, making an initial inventory, followed by marking the route or direction of the trail, travel time, and accessibility conditions of the ecotourism microcircuit. To complete this first stage of work, we have carried out a study of the relations of the population with the tourist resources, which are necessary because they will provide support and support to any project initiative. The state of the nearby support plant and the main city of the tourist resource have minimal services, which gradually improve in response to the progressive demand of visitors and tourists.

In addition, in consideration for the investigation, we have continued to describe the current way in which they make use of the ecotourism microcircuit according to the rainy season, which facilitates access. The gradual use, under minimum standards of

exploitation and adequacy of the ecotourism microcircuit, generates sustainability, from the implementation of a strategy of administrative control, collection, and recycling of solid waste with an incipient system implemented by the organization of tour operators.

The visitor carrying capacity to minimize: noise pollution, species stress, and landscape deterioration is a maximum of 40 visitors per day. The relationships and interests of residents and tour operators with the tourist resource, add the need to maintain the use based on the exploitation of two internal routes, which are marked with precision to 40%. It should be noted that there is an organization in the neighborhoods that allows programming the use of the ecotourism microcircuit; the problems of territorial boundaries between the neighborhoods contained within the communal territory, were overcome.

The municipality has started a capacity building program, and is even in the process of designing investment projects to start physical-legal sanitation and protection facilities for ecotourism resources.

5. Conclusions

The potential of tourist resources contained in the Llamcama ecotourism microcircuit is diverse, only two internal routes are being used; Sustainability would be based on the administration of the complex by the association of community tour operators, which will allow establishing controls, and monitoring so that the resources contained in the ecotourism microcircuit do not deteriorate. The peasant communal organization is where the Association of Community Tour Operators (AOTC) was born. The AOTC will be in charge of managing, protecting the rational exploitation, and maintaining the trails. From the environmental and cultural point of view, it will contribute to consolidating an area of protection and use of ecotourism and archeological resources.

The local Municipality will tender the closed ecotourism microcircuit to the association of tour operators prior to the bankruptcy process, who must develop the registration and control at the entrance and inside. One of the economic resources that will finance maintenance will be collecting a percentage of the total cost for each ticket sold. The distribution of the entry ticket, equitable, will be under the proposal: 1.00 soles (one PEN) for the security guard or casetero, 1.50 soles (one PEN and a half) for the association, and 2.50 soles (two PEN and a half) for the Municipality of the Center Town, which assumes the cost of issuing the ticket.

From the environmental point of view, the way of managing the visits allows for a low impact due to human intervention, in the conditions that exist such as: landscape, acoustics, solid and liquid waste, and stress of animals and plants. The closed ecotourism microcircuit of the Poblado Menor de Llamcama center has the following attributes: Chingana, Awekillaqta, Apu pavilions, Stone Forest, Red Apu, Pankula, Heart Stone, Ccoñecc thermal water, Suytu Machay caves and the Llamcama canyon. There is a moderate to low degree of vulnerability of various tourist resources, due to the disorganization in the administration, maintenance, and conservation of ecotourism resources.

The accessibility is good to moderate in the high season (there is no rain), changing to low accessibility in the rainy season. The support plant close to the tourist resources presents limitations in various services, which are complemented by a support plant in the district capital and the city of Andahuaylas. The carrying capacity is an average of 80 visitors a day and 400 visitors a week, at a cost of 5 PEN per visitor, the total income per week and month will be: 2000 PEN and 8000 PEN respectively.

The District Municipality of Llamcama will have to lead the formalization of the association of community tour operators where priority must be given. Likewise, it

will have the duty to implement the protection of tourist resources up to 75% to stop the violation and deterioration of ecotourism resources, likewise, it will implement spaces with solid waste sorting bins and hygienic services in strategic places.

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Conflict of interest

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