

## A Comparison of the Expected and Performed Roles of the Geotourism Stakeholders at Hummānaya, Sri Lanka

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**Abstract:** Geotourism is a niche market that sells the geographic uniqueness of places, and Hummānaya is one such destination. Geotourism stakeholders are agents who shape, positively or negatively, the geographical characteristics of a place. They have three key roles to play to sustain and even enhance the geotourism allure of a destination and the well-being of its residents. Those roles are programming, facilitating, and gatekeeping. The Special Area Management Plan (SAMP) has suggested several strategies and management actions for the stakeholders to implement in Hummānaya, one of the geotourism destinations in Southern Sri Lanka, to sustainably develop the area while mitigating the socio-cultural, economic, and environmental issues in the area. The primary objectives of the research were to identify the geotourism stakeholders of the Hummānaya destination and to examine the extent to which the stakeholders have fulfilled the responsibilities suggested by the SAMP and other literature over the past two decades. Key informant interviews and observation methods were conducted to collect data and information. Seventy-seven key informants were involved in key informant interviews. State-centric stakeholders were identified as having played programming and facilitating roles to some extent but neglected the gatekeeping role. The local community is not fully committed to sustainably programming the ecotourism activities and gatekeeping activities in the destination and facilitating them for tourists, even though some facilities are provided. Also, they have not become the custodians of the destination. Thus, to make Hummānaya a sustainable tourism destination, this study recommends that each stakeholder should pay enough attention to fulfil all three roles.

**Keyword:** Blowhole, Geotourism, Stakeholder, Sri Lanka, Roles Assessment.

### 1.0 Introduction

Geotourism is a niche market that sustains or even enhances the geographical characteristics of a place, such as its culture, environment, heritage, and the well-being of its residents. It encompasses wider geographical, socio-economic, and cultural contexts that sit under the umbrella of geographical tourism. Research literature highlights that geotourism adds sustainability principles and a sense of place to emphasise the distinctiveness of its locale and benefit visitors and residents. As an emerging tourism type, it is still at an early stage of commercial development in Sri Lanka (as well as in the world). In the world, there are more than 77 geotourism destinations registered as geoparks under UNESCO (United Nations Educational, Scientific, and Cultural Organization). In Sri Lanka, there are many geomorphological features, such as blowholes, hot springs, waterfalls, and sheer cliffs, that produce unique places. Many such places attract a vast number of tourists. However, very few of them are conserved under the national or global heritage protection networks. The blowhole (Hummānaya) at Kudawella is one of the tourist sites that should be conserved, at least as a national heritage. It is one of the most well-developed blowholes in the world and the largest blowhole in Sri Lanka. Hummānaya is located in the Kudawella (Southern) Grama Niladhari Division (GND), which is about 192 kilometres to the south of Colombo in the Tangalle Divisional Secretariat division. The destination lies within longitudes 80.430–80.450 and latitudes 5.580–6.000 (refer to Figure 1).

The stakeholders of a tourism destination are a group of agents who shape the environmental, socio-cultural, and economic characteristics of an area and thereby shape their socio-economic and cultural characteristics. The behaviours of geotourism stakeholders contribute to changing the geographic uniqueness of the destination, especially the tangible and intangible properties of the area, either negatively or positively. Because of this, many researchers and planners have described the roles that the stakeholders of a tourism destination should play. Information can be identified in the research literature on the roles different stakeholders should play in the Hummānaya destination. Hambantota Integrated Coastal Zone Management Project (HICZMP) has been undertaken to ascertain the extent of demand for the area, the extent of demand for other services, the potential for the development of the area, and the measures needed to manage Hummānaya area (Katupotha et al., 2000). Further, it has prepared a Special Area Management Plan (SAMP) for Hummānaya (and the nearby wetland). The study has documented several important roles to be performed by tourism stakeholders in the destination to achieve the ultimate objectives of the project of regulating tourism activities and protecting the geo-heritage. Hence, the primary objectives of the research were to identify the geotourism stakeholders of the Hummānaya destination and to examine the extent to which the stakeholders have fulfilled the responsibilities suggested by the SAMP and other literature over the past two decades.

### 2.0 Literature Review

#### 2.1. Geotourism Stakeholders

As in other kinds of tourism activities, tourists, travel agencies and entrepreneurs, accommodation providers, employers, host communities, tourism professionals, public authorities, media, etc. are involved in geotourism activities. Referring to Aas et al. (2005), such types of "individuals or groups involved or affected (positively or negatively) by tourism" are called tourism stakeholders.

Warbrooke (1999) has categorised the stakeholders into five categories: governments, tourists, host communities, tourism businesses, and others. Turker et al. (2016) have identified five groups of stakeholders involved in tourism: tourism businesses (accommodations, restaurants, travel agencies, souvenir shops, transportation, etc.), residents, local authorities, nongovernmental organisations, and educational institutions. Pathmasiri (2019) has categorised tourism stakeholders into four categories: state-centred stakeholders (all governmental institutions), local communities (residents of the destination), tourists (visitors), and outside facilitators (agencies, individuals, and groups involved in tourism activities but outsiders to the destination).

Former studies have identified several stakeholders that are involved in tourism activities in Hummānaya destinations. The SAMP has identified two groups of stakeholders for participating in developing the plan: state-centred stakeholders and community-based stakeholders (Katupotha & Ranasinghe, 2000). The state-centred stakeholder category consisted of the officials of the Tangalle Divisional Secretariat (TDS), the officials of the Tangalle Local Council (TLC), the District Fisheries Extension Officer, the Representative of SDA, the Public Health Officer, the officials of Tangalle Police, the officials of the Samurduhi Authority (Tangalle Region), village officers (TDS), environmental officers (TDS), the Planning Officer of the Urban Development Authority (UDA), and the Manager of the Water Resource and Drainage Board. The community-based stakeholder category consisted of the Community Coordinating Committee, Lagoon Fisheries Society, Small Scale Women Fisheries

Society, SANASA Bank, Janashakthi Bank, Samurthi Organisation, Blowhole Protection Society, Fisheries Cooperative Society, Sarvodaya, and the Death Donation Society. The Tangalle Pradeshiya Sabha (2021) has identified eight key stakeholders for the implementation of the Hummanaya Tourism Plan. The stakeholders are TLC, TDS, the Coast Conservation Department (CCD), the Central Environment Authority, local dignitaries, religious leaders, and the Water Supply and Drainage Board. Following the methodology adopted by Pathmasiri (2019), the geotourism stakeholders of Hummanaya can also be categorised into four categories: state-centere stakeholders, local communities, tourists, and outside tourism facilitators.

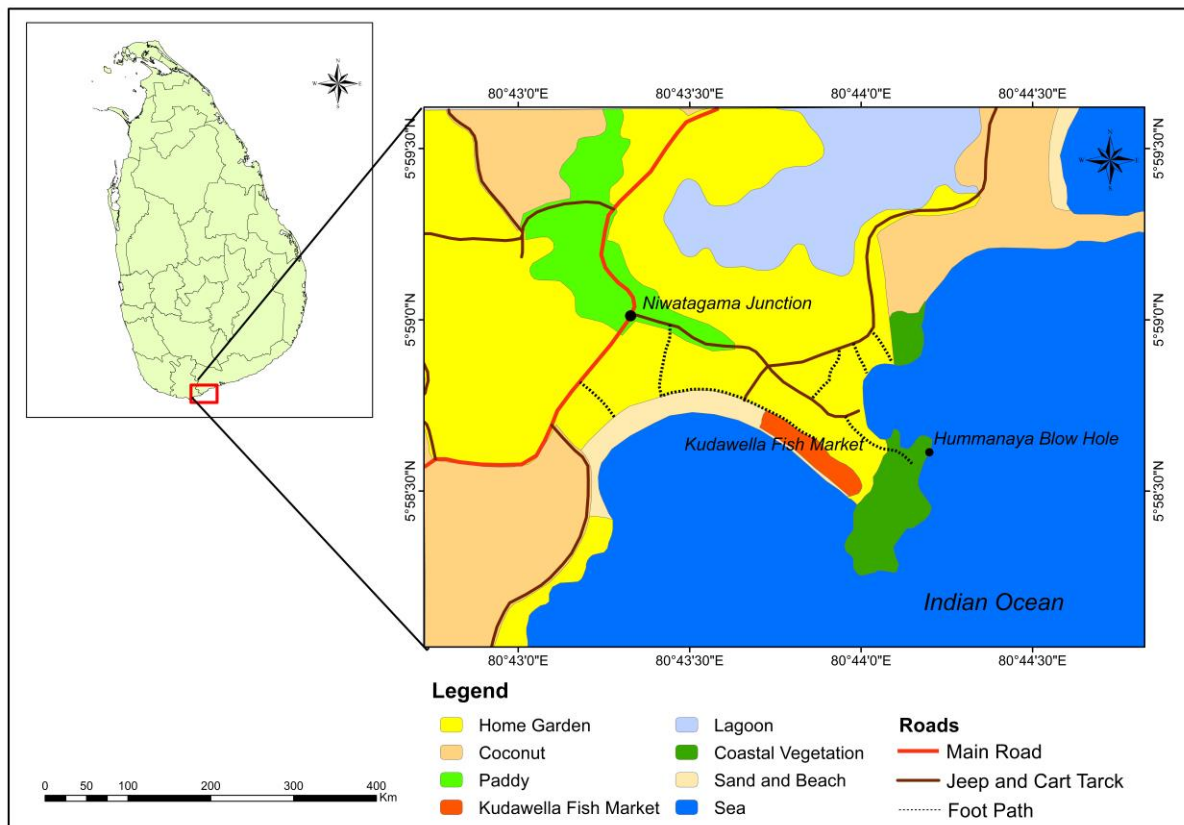


Figure 1: Location of the Hummanaya blowhole and Lnd use pattern of its surrounding area

## 2.2. Expected roles from Geotourism stakeholders

As an approach to tourism, geotourism focuses on the application of sustainable tourism principles (Dowling, 2013). The basic principles that geotourism can follow include travelling to natural destinations, minimising negative impacts, building environmental awareness, providing direct financial benefits for the conservation of geoheritage, providing financial benefits to local communities while empowering them, respecting local culture, and supporting human rights (Blamey, 2001; Weaver, 2001; Honey, 2008; Farsani et al., 2012; Mowforth & Munt, 2016).

From the point of view of geography, it can be said that all tourism stakeholders are engaged in projects to structure tourism destinations, their landscapes, and the socio-cultural and economic characteristics of communities. However, as a responsible approach to tourism, geotourism seeks to structure tourism destinations sustainably. Therefore, each stakeholder has a role to play in achieving this ultimate goal.

By analysing previous studies on the roles of tourism stakeholders, Saffinee et al. (2020) have identified three roles that stakeholders should play. The first role is to protect the environment by maintaining ecological balance, natural heritage, and biodiversity. The second role is to promote community participation by empowering the local community, protecting their cultural heritage, customs, and traditions, and strengthening intercultural communication. The third role is to preserve and improve socio-economic conditions by facilitating tourists, supporting local communities to improve their living standards, minimising host-tourist conflicts, ensuring equal distribution of tourism benefits, creating job opportunities, and conducting social services.

Considering the literature, the geotourism roles to be performed by stakeholders can be categorised into three categories: programming roles, facilitating roles, gatekeeping roles, and guardian roles.

- Programming role: stakeholders must programme socio-spatial relations such as resource utilisation, economic activities (including the tourism industry), infrastructure development, and land use to preserve the uniqueness of the destination and to improve the social, economic, cultural, and environmental conditions. In other words, geotourism projects and destinations should be programmed to ensure the five dimensions of sustainability: geo-heritage, economic, social, cultural, and tourism sustainability. So, geotourism activities should be programmed to
  - minimise or avoid adverse effects on abiotic, biotic, and cultural (ABC) properties of the destination (Dowling, 2013),
  - ensure the well-being of the host community without violating other sustainability principles,
  - avoid and minimise negative social impacts while encouraging and strengthening the positive social movement and human rights.

- to ensure the reproduction of traditional socio-cultural practices that contribute to sustaining the ABC properties of the destination
- to ensure that the expectations of all stakeholders are met.

State-centered agencies can become programmers by making plans, rules, guidelines, etc. Locals can also become programmers by properly programming a business that provides goods and services to tourists. Although different stakeholders contribute to it at different levels, every stakeholder must participate in programming the destination. This role also involves programming the activities in such a way that they are self-sustaining.

- **Facilitating role:** This states the function of providing the facilities necessary to carry out the programmed activities (e.g., tourism). Providing geotourism products and services is one of the main roles to be played by geotourism stakeholders. However, to be a geo-product or service, it should be made of local or regional products, a symbol of the geological or geomorphological heritage of the territory, a commercial and pedagogical tool, an earth-friendly product, and a product that integrates local tradition with the concepts and interpretations in geosciences (Farsani et al., 2012). Reynard (2008) has classified geotourism products and services into two categories: original offerings and derived offerings. The original offerings consist of a set of geo-sites, such as a blowhole. The derived offerings consist of the equipment developed for the accommodation and transportation of tourists, scientific goods and materials that help tourists understand the geo-heritage of the destination, and interpretation services in the area and outside the area, such as websites. Geotourism products can be further classified into two categories: edible products and decorative or ornamental products, which are made from stone, wood, furniture, clothes, etc. (Farsani et al., 2012). To promote the tourism industry, some stakeholders (e.g., state-centered stakeholders) carry out facilitation activities such as the development of road systems, the provision of drinking water and toilet facilities, the development of community skills, the provision of security, etc. The local people can also become facilitators in the tourism industry by providing accommodation to tourists, selling food and other goods, providing vehicle parking facilities, and providing tour guide services. Through the purchase of goods and services produced by the local community, tourists can become facilitators for the local community to develop their economy, sustain their livelihood, and maintain their cultural heritage.
- **Gatekeeping role:** This means examining whether socio-spatial relations, including tourism, are maintained in a way that preserves and promotes the identity of the area. This means monitoring whether tourism activities are being carried out in accordance with geotourism principles and taking corrective action if they are not following those principles. State-centered agencies can become gatekeepers by taking measures to prevent human activities that damage the scenic beauty of the destination, spoil regional identity, cause environmental degradation or coastal erosion, punish those who are engaged in such activities according to the law, and educate stakeholders to control such activities. The local community can also become gatekeepers by preventing or hindering the spread or inflow of things (such as polythene or plastics) or habits (such as drug and alcohol addiction) that damage the identity of the area.

### 2.3. Expected roles from Geotourism stakeholders at Hummānaya

The Special Area Management Plan can be described as a report detailing the roles to be played by tourism stakeholders at Hummānaya destination. The National Coastal Zone Management Plan (1990) and Revised Coastal Zone Management Plan (1997) have identified Hummānaya blowhole as one of the high-priority scenic sites in the coastal zone of Sri Lanka. With this background, a SAMP for Kudawella was prepared as one of the umbrella projects of the Hambantota Integrated Coastal Zone Management Project (Katupotha & Ranasinghe, 2000). The SAMP for Kudawella has paid careful attention to selecting the site through maximum stakeholder participation to enhance community participation throughout the planning process, evolve a consensus among the ruling and opposition political authorities, and initiate implementation tasks while planning is still in progress (Katupotha & Ranasinghe, 2000). Hence, the plan is considered a collaborative plan focusing on the environmental, social, and economic issues in the Kudawella area.

As identified by the SAMP for Kudawella (Katupotha & Ranasinghe, 2000), there have been five key management issues in the destination.

- Declining economic, social, and cultural stability of Kudawella blowhole and its environs
- Lack of awareness, education, and enforcement of regulations
- Degradation of the environmental and scenic quality of the blowhole and the vicinity
- Coastal Pollution
- Inadequate infrastructure facilities
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Solving these issues can be considered the main responsibility of the tourism stakeholders of the destination. To improve economic status and maintain the social and cultural stability of the destination, SAMP has proposed four strategies. First, it has recommended stakeholders such as TLC, CCD, TDS, CTB, and UDA prioritise formulating and implementing a development plan for the blowhole to increase economic gains. The second was to introduce and encourage private-public partnerships for the development of nature-based tourism and other industries, and the primary responsibility for fulfilling it was assigned to TLC, CTB, and UDA. The third was to reduce conflicts between the local community and tourists through awareness and education. The fourth was to control drug addiction.

The community's lack of knowledge, ignorance, and education about the existing laws and regulations regarding coastal resource management and environmental conservation has been the cause of many environmental problems. To address this issue, SAMP suggests developing an appropriate plan to educate the community about coastal zone management and coastal conservation laws and ordinances and to implement effective procedures to regulate development activities.

The tourist attraction of Hummānaya tourist destination rests on the scenic quality created by the unique combination of abiotic, biotic, and cultural properties. But as the attractiveness of Hummānaya destination was gradually diminishing due to various human activities, SAMP suggested to GTZ, TDS, Forest Department (FD), CTB, and TLC to take steps to enhance and maintain the beauty of the blowhole and its surrounding area to develop guidelines to regulate development in the area around the blowhole.

SAMP has identified coastal pollution as an issue facing the Hummānaya destination and proposed three strategies to address it. Firstly, it was identified as a necessity to take appropriate measures for the collection of solid waste and waste oil, and for that, it was necessary to provide equipment to collect waste materials, establish waste oil reception facilities, and collect waste materials regularly. Secondly, SAMP expected stakeholders to take steps to make the waste management system sustainable. It is shown in the SAMP report that it is possible to use a part of the revenue of the tourism centre for waste management, to direct the community to produce compost fertiliser from domestic solid waste, and to produce value-added products from waste oil by giving them the necessary technical knowledge. Thirdly, taking steps to curtail the use of non-biodegradable materials in Hummānaya premises was also an expected role from the stakeholders. As per the SAMP report, that task can be done by prohibiting the use of polythene and plastic bags on the premises, displaying signboards declaring this

prohibition, using biodegradable materials as wrappers and containers, and educating the fishing community about the environmental importance of avoiding non-biodegradable materials.

Another problem faced by the Hummānaya destination was the inadequate infrastructure facilities. To solve the shortage of drinking water facilities, establishing a new drinking water scheme with water storage facilities, minimizing wastage of drinking water, and educating tourists and residents have been identified as the role to be played by TLC, TDS, and SPC.

### 3.0. Research Methodology

As mentioned above, the primary objectives of the research were to identify Geotourism stakeholders of the destination and to examine the extent to which the stakeholders have fulfilled the responsibilities suggested by the SAMP and other literature over the past two decades.

To achieve the aforementioned objectives, primary data were collected based on key informant interviews and participatory observations conducted in 2022 while published and unpublished documents were used as secondary data. Based on the findings of the preliminary study of the present research, seventy-seven key informants, including the president of officials of state-centered agencies (9), local community members of Kudawella (Southern) GND (40), local tourists (20), and foreign tourists (8) were selected and interviewed. A semi-structured questionnaire and a structured questionnaire were used to collect information.

### 4.0. Results and Discussion

Geotourism transformation of Hummānaya destination had led to the emergence of new business activities and environmental degradation (Katupotha et al, 2000). Furthermore, when it was 2000, according to Katupotha et al (2000) "there was neither a proper mechanism in place to maintain the area properly nor method of meeting visitor requirements such as water, sanitation, access road, etc.". Therefore, regulating tourism activities as per Geotourism principles, reducing environmental degradation, and protecting geoheritage for future generations became key responsibilities of Geotourism stakeholders. Looking at the above management actions suggested by the SAMP and the stakeholders who need to perform them, it is clear that there are three roles to be played by stakeholders. They are the programming role, the facilitating role, and the gatekeeping guardian role. The purpose of this section is to examine which of the roles indicated above are played by stakeholders of the destination. An attempt is made to derive the role played by the stakeholders by describing the activities performed in the Hummānaya destination.

#### 4.1. Programming role

It is clear from the above that programming/planning of socio-spatial relationships to meet the economic, social, cultural, and recreational needs of the present generation while protecting the Hummānaya and its geo-heritage to the future generations is one of the roles to be played by stakeholders in geo-tourism. To achieve this goal, several steps have been taken by geo-tourism stakeholders, especially state-centric institutions.

First, according to the recommendations of the SAMP, the Sri Lanka Southern Development Authority, Tangalle Regional Council, and Tangalle Divisional Secretariat have taken over the ownership of the land around Hummānaya under the government. Accordingly, the state institutions have taken necessary measures to take over the ownership of the 1.232-hectare Kolonna Kanda land mentioned in reference No. H/TNG/2003/384 and dated 2003-11-14 prepared by the Surveyor General (Tangalle Pradeshiya Sabha, 2021). Second, Tangalle Local Council, with the support of other stakeholders, has taken necessary steps to reopen the destination to tourists and to introduce a pricing system for raising funds to improve and maintain tourism facilities and protect the geo-heritage of Hummānaya and its vicinity. As a result, almost every tourist visiting Hummānaya has to buy a ticket. By 2022, an entry ticket fee was Rs. 20 for a domestic tourist and Rs. 250 for a foreign tourist. Third, the tourist destination facilities have been developed in accordance with the SAMP plan, and the code of conduct implemented in the Hummānaya destination has been developed. Fourthly, several government agencies led by the Tangalle Pradeshiya Sabha have prepared a plan (Tangalle Pradeshiya Sabha, 2021) to develop Hummānaya and its surrounding landscape in a way that attracts tourists and keeps tourists in this destination for a longer period. There are four primary objectives of this plan (Tangalle Pradeshiya Sabha, 2021).

- "Rises the demand for the blowhole,
- increase the recreational value of the blowhole and its environs
- determine the willingness to pay for the blowhole,
- develop a set of recommendations for sustainable management of the blowhole and its environs"

Under this plan, the following management actions are proposed to be implemented, and it is estimated that it will cost around 5 million rupees (Tangalle Pradeshiya Sabha, 2021).

- Initiate boat tour service, and for that, set up a floating deck,
- Establish a cafeteria and open gathering space on the premises,
- Establish a locker room to protect the luggage of tourists,
- Develop drinking water facilities and sanitary facilities,
- Develop access roads,
- set up signboards in an attractive manner,
- increase the number of waste bins on the premises for waste management,
- place a tourist guide near the Hummānaya to educate tourists and take care of their safety

#### 4.2. Facilitating role

Various facilities are provided by the state-centered stakeholders as well as the local community to fulfill the tourism objectives of the tourists visiting the destination and to attract more tourists to the destination.

- Vehicle parking facilities: The first challenge faced by tourists entering the destination of Hummānaya is finding a place where they can safely park their vehicles. Tourists have to rely on four parking service businesses run by four locals, as none of the state-centred stakeholders are engaging in the parking service business. All these vehicle parks are located on the access road to Hummānaya, about one kilometre from the Hummānaya Information and Educational Centre (HIEC). One park is a small one that can park around 5 cars, and other parks are spacious places that can park around 20 cars. The average land extent of a parking lot is about 632 square meters. However, buses can only be parked in one of the parking lots. Parking charges are Rs. 50 per day for a motorcycle,



Rs. 100 per day for a van or a car, and Rs. 200 per day for a bus. Many tourists are unable to park their vehicles in a secure park on days of heavy traffic, especially during the peak tourism season. They have to park their vehicles on the roadside at their own risk. This shows that the tourism facilitators have failed to meet 100% of the tourists' parking needs during high tourist days.

- Access roads to the Hummānaya: The narrow road leading to the blowhole has been in the same condition for the past 2 decades (Waidyasekara, 2009). State-centred agencies have failed to acquire land nearby the road to widen and develop the road so that a tourist can reach the Hummānaya destination by vehicle. All the vehicles coming to the destination have to stop about 1 km away from Hummānaya, and tourists have to walk. A four-wheel vehicle can only reach the Indra Restaurant & Parking lot. From there, the road narrows to about 8–10 feet, and after passing Sea View Residence, the road narrows further. This section is a staircase that even a wheelchair cannot climb. The road from there is about 8 feet wide. The main reason for the variation in road width from place to place is land acquisition issues. The section leading up to the ticket counter at the HIEC is arranged with handrails. Almost the entire road is paved with concrete, asphalt, or rock. Some tourists said in interviews that "the roughness and narrowness of the road delay the hospitalisation of an injured tourist" and "the destination can be called an inaccessible destination for a person who has difficulty walking."
- Quality of road within the premises: The SAMP report suggested stakeholders develop the access road from HIEC to the blowhole in an environmentally friendly manner. Although state-centred stakeholders have developed the road by paving granite rocks, many sections of the road are currently dilapidated. This situation has arisen due to excessive soil erosion and a lack of proper maintenance.
- Viewing deck with safety fence: In discussions with residents, it was stated that several people have been injured due to the absence of a viewing deck with a safety fence, which is necessary to view the blowhole safely. The state-centred stakeholders built up a viewing platform with a safety fence around 2009 (Waidyasekara, 2009). Nowadays, this viewing platform is highly eroded, while the safety fence is dilapidated in some places. There is no view deck at the blowhole, so it can be said that geo-tourism stakeholders at the destination have failed to control further degradation of the top soil and rock layer in the vicinity of the blowhole. Tourists criticised the quality of the safety fence too. According to them, although the safety fence provides some protection for adults, small children do not get proper protection from the fence. The reason for this is that there is a distance of about 1.5 feet between the nickel pipes of the fence, and the distance between the lowest nickel pipe and the ground has increased further due to soil erosion.
- Educational facilities: As indicated in HIEC's opening plaque and confirmed by key informants and Waidyasekara (2009), the Hummānaya Information and Educational Centre (HIEC), also known as the Hummānaya Visitor Centre, was built by the HICZMP and the Ruhunu Tourism Bureau of the Southern Provincial Council, which operated under the CCD of the Ministry of Fisheries and Aquatic Resources. The establishment of the centre was funded by the Royal Norwegian Government and mentored by the Norwegian Institute of Water Research. As per the opening plaque, this building was opened in 2008. This building is also known as the Hummānaya Visitor Center. The officer in charge of the HIEC stated in the interviews that "when this centre was established, there were many leaflets and booklets informing tourists about the functioning of the Hummānaya, the importance of the ecosystems in the vicinity of Hummānaya, management methods, etc." He further stated that "at present, there are no such printed documents available for purchase by tourists". However, a tourist who visits this centre can be aware of certain information about the functioning of a blowhole, coastal ecosystems, and their importance through the notice boards displayed in the center. Also, a model of the blowhole has been installed in this centre to demonstrate the function of the blowhole. In addition, some whale bones are kept in the yard in front of the information center. Furthermore, it was found that some bones of oceanic creatures are decaying in the backyard of the HIEC. It is clear from this information that although the roles recommended by the SAMP report (2000) (Katupotha & Ranasinghe, 2000) were performed well in the past, the stakeholders have failed to perform them properly in the present.
- Drinking water and latrine facilities: According to the SAMP report (Katupotha & Ranasinghe, 2000), Hummānaya being very close to the coast, local people and tourists are facing a shortage of drinking water, and stakeholders should take steps to solve it. To fulfil this requirement, a drinking water tap has been installed near the HIEC. This water can only be used to meet the drinking water needs of tourists. The state-centred stakeholders have established seven water-sealed toilets in the vicinity of the HIEC. However, some tourists stated in the interviews that they felt uncomfortable because the toilets are not easily visible to the tourists as they are installed at the back of the HIEC, and there is no signboard informing them that there are toilet facilities on the premises.
- Accommodation facilities: This study was able to identify three private businesses that provide accommodation to tourists near Hummānaya: The Bay Beach, Beach Villa Lanka, and Blowhole View Home Stay. As identified in the interviews with the management of these businesses, the first two business places provide accommodation only for foreigners. Also, one of the businesses is owned by a Slovenian national and the other by a Sri Lankan. The Beach Villa Lanka hotel is a two-story building with six rooms, while the Bay Beach hotel is a single-story building with five rooms. Of these two accommodations, Beach Villa Lanka is a 3-star hotel. It is a luxury accommodation with air conditioning, attached bathrooms, towels and bed linen facilities, Wi-Fi facilities, parking services, airport shuttle services, water sports facilities, bike or car rental facilities, and more.
- The average room charge per day is Rs. 44,044. These accommodation facilities can be booked through an online booking service, and payment can be made by credit card. There is also an internet web page for this hotel. Although the Bay Beach hotel is not as luxurious as the Beach Villa Lanka hotel, there are enough facilities for foreign tourists to have a happy holiday. There are two types of rooms here: double rooms and family rooms. A deluxe double room charges Rs. 11,011 per day, and a deluxe family room charges Rs. 13,580 per day. The Blowhole View Home Stay is located very close to the entrance to Hummānaya premises. Due to the decrease in the number of tourists visiting the destination with the COVID-19 pandemic, this business has been temporarily closed. During the period when this homestay was functioning well, it charged about Rs. 4,955 per day for one room.
- Restaurants: State-centred stakeholders in the destination do not conduct any business selling food and beverages to tourists. Those services are sold only by the local community members. 15 retail shopkeepers were interviewed during the study. However, among them, three restaurants are relatively close to the HIEC or located near vehicle parking sites. The first shop (Indra Cool Spot) is located in the area where tourists park their vehicles, and it can be considered a restaurant. Tourists can buy cooked food (such as rice and curry, fried rice), snacks (like bread, rolls, and patties), fruit drinks and fruit salad, cool drinks, prepared food (such as biscuits),

and drinking water bottles at this store. Apart from that, tourists can also purchase mobile phone reloading from this outlet. The second shop (Ashen Cool Spot) is located near the HIEC. As stated by the shop owner, this shop was started as a business selling cooked food and other food and drinks for tourists, but at present, this shop does not provide cooked food to tourists. He mentioned that the goods that tourists buy mostly from this shop are bottled drinking water, soft drinks, packeted fresh milk, yoghurt, and dry food such as biscuits.

- Processed fish product selling shops: the sale of dried fish, Maldivian fish, and deep-fried fish are some of the main economic activities of the villagers. Many women from fishing families are engaged in the business of selling processed fish to tourists, as Hummānaya fishing port is close to Kudawella village and fresh fish can be bought at a low price. A few small-scale dried fish and Maldivian fish processing centres can be found in the area. Some women buy processed fish at wholesale and retail prices from processing centres and sell them to tourists. During the study period, ten dried fish shops located on both sides of the road leading to Hummānaya were interviewed. Most of them are run outside the houses in temporary huts made of coconut branches, wood, tin sheets, etc. In addition to dried fish, some shops sell goods such as fried chickpeas, tamarind, lime, fruit (such as wood apples, bananas, and limes), betel and arecanuts, and ornamental tourism souvenirs such as oyster shells. Further, as the businessmen stated in the interviews, "many dry fish sellers have abandoned this business due to the collapse of the tourism industry with the COVID-19 pandemic." About 10 abandoned temporary huts can be seen in the area at present. Near the HIEC, there are four other shops selling dried fish and deep-fried fish. These are maintained in huts built in connection with the houses. Dried fish is packed in polythene bags to carry them easily. In the interviews, many tourists said that "the price of dried fish in the destination is cheaper than the price of supermarkets or shops outside the destination." During the interviews, many dried fish traders said that "they can earn substantial income from this business."

#### 4.3. Gatekeeping and guardian role

As identified above, the gatekeeping role is the role played by the stakeholders to maintain the tourism industry in a way that does not damage the geo-heritage of the area, i.e., geological uniqueness, ecosystem elements, its characteristics, socio-cultural values, etc. According to key informants, the gatekeeping role of the Hummānaya tourist destination is mainly performed by six officers assigned to the HIEC by the Tangalle Pradeshiya Sabha. In the interviews with them, it was possible to identify the duties of an employee at the HIEC. Those duties are:

- protecting the geo-heritage of the blowhole and its vicinity,
- maintaining the Hummānaya premises cleanly and beautifully,
- guiding tourists,
- ensuring the safety of tourists,
- informing tourists about the codes of conduct to be followed on the premises and checking whether tourists behave in accordance with them,
- maintaining HIEC properly,
- issuing entry tickets to tourists and financial management.

Secondly, it was able to find one factor that influenced the reduction of villagers' participation in performing the gatekeeping role of the tourist destination. As per the interview, "*when Hummānaya tourist destination was formally reopened, employment opportunities were given to some locals, but because of the violation of employment terms and conditions by those workers, no villager is currently given employment opportunities in the HIEC.*"

According to key informants, to ensure the safety of tourists and reduce the potential conflicts between tourists and residents, the stakeholders have taken steps to prohibit the bringing of alcoholic beverages into the premises and the use of alcoholic beverages within the premises. The signboard announcing this has been displayed near the entrance to the premises. Even so, the empty beer cans and liquor bottles can be seen in some parts of the premises, indicating that some tourists clandestinely bring liquor to the premises and use them on the premises.

It was mentioned above that the SAMP report suggested to the stakeholders that they manage the waste that harms the scenic beauty of the Hummānaya destination. Two measures taken by the state-centred stakeholders, especially the Tangalle Local Council, could be identified in the Hummānaya precinct to maintain and improve the scenic beauty of the destination. The first is that several dustbins are placed near the visitor centre for proper disposal of biodegradable waste materials. The second is to prohibit bringing non-biodegradable waste materials such as polythene and plastic into the premises and to display sign boards declaring this on the premises. However, it is clear from the scattered used tickets, polythene, empty beer cans, etc. on the premises and the road leading to the Hummānaya that some tourists do not dispose of garbage properly. Because of this, the Tangalle local council has had to bear significant costs for cleaning the premises.

#### 5.0. Conclusion

This study focused on the identification of geotourism stakeholders in the Hummānaya tourism destination and their roles, particularly to examine the extent to which stakeholders have fulfilled the responsibilities suggested by SAMP and other literature in the last two decades. This study was able to identify stakeholders belonging to four main categories: state-centred stakeholders, residents, tourists, and other stakeholders external to the Hummānaya destination. SAMP has compiled what management actions and strategies should be taken by the above stakeholders to solve the social, economic, cultural, and environmental problems of the Hummānaya destination and to protect and improve the tourism attractions of the destination for future generations. These management actions could be categorised into three categories: programming roles, facilitation roles, and gatekeeping roles. Tourism infrastructure, tourism facilities, Hummānaya Education and Information Centre, viewing platform, and tourist attractions such as Hummānaya walkway have been developed largely with the contribution of governmental institutions and international agencies. It was evident that state-centred stakeholders have performed programming and facilitating roles to some extent but ignored gatekeeping roles. The local community has not been fully committed to facilitating tourists, even though they have provided some facilities needed by the tourists. Also, they have not become the guardians of the destination. In general, it was recognised that many stakeholders have failed to accomplish some key roles suggested by the SAMP report (2000) and other scholars. The discrepancy between the expected roles and the performed roles of the geotourism stakeholders in the Hummānaya destination has adversely affected the sustainability of the destination. Hence, to make Hummānaya a sustainable tourist destination, every stakeholder should involve and well perform the programming, facilitating, and gatekeeping roles suggested by the SAMP report (2000) and other scholars. With such an effort, Hummānaya, one of the world's largest blowholes, can be preserved for future generations while also meeting the tourism needs of local and foreign tourists. Hummānaya geotourism destinations will enable the local community to achieve sustainable regional development

by being facilitators and guardians of the destination and actively contribute to national development by attracting foreign tourists and earning foreign currency.

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## References

- Aas, C., Ladkin, A., & Fletcher, J. (2005). Stakeholder Collaboration and Heritage Management. *Annals of Tourism Research*, 32(1), 28-48.
- Blamey, R. K. (2001). Principles of Ecotourism (D. B. Weaver, Ed.). In *The Encyclopedia of Ecotourism* (pp. 5-22). New York: CABI Publishing.
- Coast Conservation Department. (1990). *Coastal Zone Management Plan*. Coastal Resources Center. Retrieved September 10, 2022, from <https://www.crc.uri.edu/download/SLCZMPlan90.pdf>
- Coast Conservation Department. (1997, October 5). *Revised Coastal Zone Management Plan, Sri Lanka 1997*. Coastal Resources Center. Retrieved September 10, 2022, from <https://www.crc.uri.edu/download/SLCZPlan97.pdf>
- de Livera, L. (2022). *Blow Hole (Hummānaya) at Dikwella | AmazingLanka.com*. Amazing Lanka. Retrieved September 2, 2022, from <https://amazinglanka.com/wp/blow-hole-Hummānaya-at-dikwella/>
- Dowling, R., & Newsome, D. (2010). The future of geotourism: where to from here? In *Geotourism: The Tourism of Geology and Landscape*. Oxford: Goodfellow Publishers Limited.
- Dowling, R. K. (2013). Global Geotourism – An Emerging Form of Sustainable Tourism. *Czech Journal of Tourism*, 2, 59-79. <https://cyberleninka.org/article/n/426732.pdf>
- Farsani, N. T., Coelho, C. O.A., Costa, C.M.M. d., & Carvalho, C. N. (Eds.). (2012). *Geoparks and Geotourism: New Approaches to Sustainability for the 21st Century*. Florida: BrownWalker Press.
- Honey, M. (2008). *Ecotourism and Sustainable Development: Who Owns Paradise* (2nd ed.). Washington DC: Island Press.
- Katupotha, K.N. J., & Ranasinghe, I. (2000). *Special Area Management Plan for Mawella and Kudawella Coastal Area*. Southern Development Authority of Sri Lanka.
- Katupotha, K.N. J., Wickramasinghe, U., & Ranasinghe, I. (2000). *Economic valuation of Kudawella Blowhole - Hummānaya*. Southern Development Authority of Sri Lanka.
- Mowforth, M., & Munt, I. (2016). *Tourism and Sustainability: Development, Globalization and New Tourism in the Third World*. London: Routledge.
- National Geographic. (2022). *What is Geotourism?* Four Corners Region. Retrieved August 31, 2022, from <https://fourcornersgeotourism.com/entries/what-is-geotourism/642ba470-4085-45e8-96d0-5b587921f198>
- Pathmasiri, E.H.G.C. (2019). *Geographical Characteristics of Ecotourism according to Stakeholders: a case study of Dambana, Eppawala, Kudawa and Meemure regions in Sri Lanka*. A dissertation submitted in fulfillment of the requirements for the Degree of Doctor of Philosophy in Geography at the Graduate School of Sangmyung University, Rep of Korea.
- Reynard, E. (2008). Scientific Research and Tourism Promotion of Geomorphological Heritage. *Geogr.Fis.Dinam.Quat*, 31, 225-230.
- Saffinee, S. S., Jamaludin, M. A., Kartika, B., Syahrir, W.J.N.W. M., & Halim, S. A. (2020, December 14). *A Systematic Review of Tourism Stakeholders' Roles Practices towards Sustainable Tourism Using Khalifa Perspectives*. Journal of Islamic, Social, Economics and Development. Retrieved December 10, 2022, from <http://www.iised.com/PDF/JISED-2020-34-12-04.pdf>
- Swarbrooke, J. (1999). *Sustainable Tourism Management*. CABI: Wallingford.
- Sumanapala, D., Kubalíková, L., & Wolf, I. D. (2021). Assessing Geosites for Geotourism Development: Case Studies from the Southern Part of Sri Lanka. *Geoheritage*, 13(85).
- Tangalle Pradeshiya Sabha. (2021). *Tourism based Landscape Development at Blowhole Vicinity, Sri Lanka*. Tangalle Pradeshiya Sabha.
- The International Congress of Geotourism. (2011, November). *Arouca Declaration on Geotourism November 12, 2011 Portugal*. European Geoparks Network. Retrieved September 3, 2022, from <https://www.europeangeoparks.org/?p=223>
- Turker, N., Alaeddinoglu, F., & Can, A. S. (2016). The Role of Stakeholders in Sustainable Tourism Development in Safranbolu, Turkey. *2016 International Conference on Hospitality, Leisure, Sports, and Tourism - Summer Session, July 12 - 14*.
- UNESCO. (2022, April 21). *UNESCO designates 8 new Global Geoparks*. UNESCO. Retrieved August 31, 2022, from <https://www.unesco.org/en/articles/unesco-designates-8-new-global-geoparks>
- Waidyasekera, A. (2009, November 24). 'Hummānaya' developed. *The Island*, 4.
- Weaver, D. B. (Ed.). (2001). *The Encyclopaedia of Ecotourism*. New York: CABI Publishing.
- Williams, S. (1998). *Tourism Geography*. Routledge.