# TOURISM STAKEHOLDERS' PERSPECTIVE OF SUSTAINABLE PRACTICES AT KINABALU PARK

# LEEZORA BATHSHEBA BENJAMIN<sup>1</sup>, SITTI LELAH RABIAH ABDUL KADIR<sup>1</sup>, ZATUL IFFAH MOHD FUZA<sup>1\*</sup>, WAN NOR BAYAH WAN KAMARUDIN<sup>1</sup>& WAN NAZRIAH WAN NAWAWI<sup>1</sup>

<sup>1</sup> Faculty of Hotel and Tourism Management, UiTM Cawangan Terengganu, Kampus Dungun, Terengganu, Malaysia

#### zatul710@uitm.edu.my

#### ABSTRACT

Over the years, many people have gradually shown a higher preference for nature-based ecotourism, partly because of the increased awareness of the importance of sustainable tourism. Issues regarding international travel limitation and the need for social distancing due to the COVID-19 pandemic have diverted local tourists' attractions to turn to more nature-based ecotourism rather than crowded city tours. Premier ecotourism destinations usually adopt sustainable management practices such as good visitors and risk management with regular training and capacity building. This study aims to examine the perception of stakeholders (in this case, the government sector) towards sustainable tourism in Kinabalu Park, with an emphasis on sustainable practices. Synchronous qualitative interviews with the stakeholders were conducted online and thematic analysis were done via the NVIVO software. The findings showed that the government agencies managing Kinabalu Park clearly understood sustainable tourism. The findings provide valuable information.

Keywords: Sustainable, Tourism, Kinabalu Park, Sabah, Stakeholder

### **1. Introduction**

For years, sustainable tourism and travel have been prevalent in Malaysia as the country boasts many nature-rich destinations such as islands, caves, and mountains. Ecotourism is essential in the practice of sustainable tourism. It is also beneficial, aiming to support the locals, educate more people on the subject of ecotourism, as well as conserving the environment (Jamrozy & Lawonk, 2017). However, the tourism industry strategy has changed due to the COVID-19 pandemic. Travel restrictions have been imposed globally. Tourist preferences have also changed. Before the COVID-19 pandemic, tourists would go on city tours, but now, to adhere to Standard Operating Procedures (SOP) like the need for social distancing, nature-based, ecotourism destinations are preferred. A growing awareness of global warming and adventurousness are also leading factors of increased ecotourism (Costello, 2020). The Malaysian government recognizes ecotourism as the fastest-growing tourism sub-sector in the country. Premier ecotourism destinations adopt sustainable management practices such as good visitor management, risk management, regular training, and capacity building (MOTAC, 2020). Sustainability is one of the United Nations global agreements used in national development plans (Swanson, 2015; Moyer & Hedden, 2020). Kapera (2018), mentioned that sustainable development is now a worldwide agenda that prioritizes issues of modern tourism development. Sustainable tourism helps achieve a balanced use of natural resources, emphasizing ecological, social, and economic aspects (Hsu et al., 2019). As ecotourism is a part of sustainable tourism, it also yields benefits to the latter. In Malaysia, one of the most popular nature-based destinations is Sabah, known as the Land Below the Wind. Kinabalu Park, Kundasang, Sabah is one of the top ecotourism destinations for both local and foreign tourists. As a World Heritage

Site, the majestic Mount Kinabalu looms over the area. People from all over the world would come here to enjoy the breathtaking scenery or climb the famous Mount Kinabalu. This study examines stakeholders' perceptions of sustainable tourism in Kinabalu Park, focusing on sustainable practices. Two sub-objectives were formulated to achieve the main objective; to explore the understanding of sustainable tourism among government organizations and to discover the government organizations' sustainable practices in Kinabalu Park, Sabah. Previous studies on Kinabalu Park have focused on ecotourism management improvement (Wondirad, 2020) and the local community (Baiquni & Dzulkifli, 2019). However, not many have studied the perceptions of stakeholders ie., the government agencies involved with sustainable tourism in Kinabalu Park. These government agencies play a crucial role in ecotourism management. Instead, previous studies mainly focused on the tour operator perspective of responsible tourism practices (Chan & Tay, 2016), the effects of national park sustainability on national park intention (Mihanyar et al., 2016), and the impact of tourism activities on the environment (Latip et al., 2020). Sabah has more tourists, although domestic, to the Kinabalu Park. However, the risk of irresponsible people harming Kinabalu Park such as throwing garbage will also increase. Changing visitor attitudes towards sustainable and more environmentally friendly holiday choices via education is a key challenge in the tourism industry (Skeiseid et al., 2019). Besides, nowadays, to prevent the COVID-19 virus from spreading, all tourism players must adopt various Standard Operating Procedures (SOP) and new norms. Thus, this study stresses how stakeholders, particularly the government sectors in the tourism industry, perceive sustainable tourism in Kinabalu Park.

## 2. Literature Review

#### 2.1 Sustainable Tourism

The concept of sustainable tourism development was developed in the last several decades as a constraint to ensure an effective tourism sector based on three main elements; environmental interests, socio-cultural and economic needs of the communities involved (Muresan et al., 2016). As mentioned in Kapera (2018), sustainable development has caught the world's attention and is becoming a priority issue in the modern world of tourism development. In achieving a balanced and wise use of natural resources, sustainable tourism is a vital development as it emphasizes the ecological, social, and economic elements (Hsu et al., 2019). Overtime, the understanding of tourism development has changed. It is now referred to as ecotourism. Ecotourism is a type of travel that is all about being a responsible person in natural areas, conserving the environment, and improving the welfare of local people (Mandulangi & Towoliu, 2019). Ecotourism could benefit economic development and preserve the protected area (Mosammam et al., 2016). Inadequate planning and a lack of a positive attitude towards the environment from local communities who live near the ecotourism sites can cause an adverse impact on the sustainability of the national park as an ecotourism area. Unmanageable waste by tourists and the local community can result in pollution and harm the quality of water resources in the national park (Hassan & Azhar, 2017). Lack of understanding of what is the right way to practice conservation efforts of the natural environment among the local community is one of the factors that contributes to the negative impact of ecotourism (Hassin et al., 2020). According to Mandulangi and Towoliu (2019), the local community can be the main participants of a direct threat to this conserved area if they fail to participate in the development of ecotourism.

### 2.2. Sustainable Practices

Bramwell et al. (2017) mentioned in their study that sustainable practices are the methods used to maintain the qualities that are important in the physical environment. Living in a sustainable way is about living with the responsibility of taking care of natural ecosystems and always ensuring that any lifestyle chosen does not cause harm to the environment, society, and culture. Recently, a lot of research has been conducted to study the importance of conservation efforts and going green (Paiano et al., 2020). As mentioned in Qian et al., (2018), sustainable practices are essential for the sustainability and preservations of our earth, as well as keeping and maintaining the health of our future generations. Nowadays, more and more companies are taking another step in making the responsible decision to go green with their services and decreasing their environmental footprint (Babu et al., 2018). This step is not just important for our preservation but it also helps in minimizing waste, conserving energy, and yield better results by saving money for its practitioner (Limstrom & Larson, 2016). All of the efforts of practicing a sustainable lifestyle will give a better result, not only for our future but also for our children's future, depending on how hard we attempt to be "greener". The main reason why sustainable practices should be encouraged in today's lifestyle is that we are facing global warming (Carr et al., 2016). If the correct method is implemented or practiced too late, the environment and social living will be worse off in the future. As mentioned in Peralta et al. (2019), most business developers now are more concerned with starting up their business in a sustainable way as they want to ensure that they are leaving the smallest environmental footprint possible.

# 2.2.1 Three Pillars of Sustainable Practices

In a previous study by Purvis et al., (2019), the concept of sustainability comes with three pillars: social, economic, and environmental. The primary concept of sustainable development is driven by the requirement for economic development to be able to meet both social and economic objectives, through the consideration of a nation's ecosystem carrying capacity and resource limitations. Whereas there is no precise mention of the three pillars, the concept can be seen whereby sustainable development, in essence, is defined as that which "vital elements are social and ecological factors, together with economic ones" (Arushanyan et al., 2017). Brown et al. (1987) found three "prospects, or circumstances, where the term sustainability is used," born from their review of the literature (Hassin et al., 2020). The social aspect comes with the outlook of giving continued satisfaction of basic human needs of the individual, and the ecological part focuses on the continuation of the functioning ecosystem and productivity (Barbier & Burgess 2017). The ecological aspect also focuses on the protection of genetic resources together with the conservation of biological diversity (Purvis et al., 2019). The last pillar, economic, is difficult to define but can be stated as working out the required limitation on economic growth outlined by a sustainable society (Thompson, 2017). However, when talking about sustainability, every researcher offers a different perspective on the same sustainability concept that materialized from the literature, nearer to observations rather than anything proceeding towards a conceptual framework. Munasinghe, (2019) stated in his study that sustainable development comprises three major points of view, economic, social, and ecological. The three different approaches to sustainability or sustainable development are connected as it summarizes that economics maximizes income by sustaining capital stock, ecological attempts to conserve the physical and biological systems, and sociocultural participation and equity (Hassin et al., 2020). To fulfill the objective of this research, social and environmental pillars were chosen to complete the question section.

## 2.2.2 Tourism Stakeholders' Perceptions Towards Sustainable Tourism

The perceptions of tourism stakeholders on the effects of tourism development are vital in ensuring the proper design and implementation of sustainable tourism development strategies in an area (Sanchez, 2016). The success of sustainable tourism implementation can be achieved with the support of the stakeholders. This type of group or individual can affect or is affected by any decision or policies. The stakeholders in sustainable tourism development are the local community, tourists, entrepreneurs, community leaders, and government. (Adhariani, 2019). The new tourism development has made the stakeholders keep their sights on sustainable tourism (Donmingues et al., 2017). This is due to the advancement of technology that makes the importance of nature tourism seem to fade from the attention of the stakeholders (Renfors, 2020). Sanchez (2016) also mentioned in their research that perception of each individual or group differs from time to time, based on the environment they live in. A study conducted by Hieu et al, (2017) showed that only 46%-63% of stakeholders play their role in making sure the sustainability of a tourism site is well-taken care and half of that just depended on others in making sure the place is maintained. Their study conducted shows that not all stakeholders take sustainable practices as a way to maintain a tourism site.

#### 2.2.3 Ecotourism in Kinabalu Park, Sabah

The lowland rainforests of Sabah, Malaysian Borneo, were chosen to be a priority site for conservation. Lowland forests in Sabah are recognized by BirdLife International as a secondary area of endemism, with eight Important Bird Areas, areas of significant value to the international conservation of bird populations (BirdLife International, 2018). Sabah's lowland forests also cover meaningful ecotourism destinations and are thus important to the local economy (WWFNM, 2016). Lowland areas that have very little ornithological attention are those in the northernmost of Sabah (Pegan et al., 2018). This region covers Kinabalu Park, a UNESCO World Heritage site encompassing 4,095 m tall Mount Kinabalu. Previously, a lot of studies have been conducted regarding the nature of the park for example of its avifauna, and most of it majoring on high-elevation areas between the lower montane forest and Kinabalu peak (Pegan et al. 2018). A large segment of lower elevation forest in the North of Mt. Kinabalu is protected by the park; however, logging activities have resulted in the forest degrading and make natural historians lose interest due to the fact that nature has been ravaged. As a consequence, ornithologists are unable to explore the lowland forests located in the northern section of the park (Sheldon, 2019). In Malaysia, most national parks and other protected areas were established to conserve and manage natural resources. Many undiscovered species can be found in the National Park Malaysia. The National Park is also considered one of the richest areas in plant species and genetic diversity, with more than 3000 species of plants (UNESCO, 2017). The National Park not only hosts plant species, but more than 150 species of animals are also found in the National Park. The abundance of plant and animal communities, species, and genetic diversity here are valuable to Malaysians.

Tour operators were able to reduce the environmental effects by raising awareness and educating people who come to the park. They should remind the visitors to keep their experience through the pictures and memories, without engraving names on trees, plucking the plants, and others (Xin et al., 2016). Xin et al. (2016) also mentioned providing educational campaigns and training to students, mountain guides, and porters to improve their understanding on conservation training, eco-practices, and mountain cleaning activities. Another sustainable practice is cleaner production. For example, in the Mongolian Yurt, lodges are built using reused materials. A similar lodge has also been built near Kinabalu Park. The

Park has also adopted river and mountain cleaning activities (Xin et al., 2016). These sustainable practices are now being implemented at Kinabalu Park, Sabah.

# **3.** Research Method

Kinabalu Park, Sabah, was chosen because it is a popular nature-based tourism destination and fulfills the study's aim to focus on sustainable tourism. Interviews were conducted with representatives from the Ministry of Tourism, Culture, and Environment, the Ministry of Tourism, Art, and Culture, and the Environmental Protection Department until data saturation. This method has analyzed how the informants understand sustainable tourism and how they implemented sustainable practices in Kinabalu Park, Sabah. Synchronous qualitative interviews were conducted with the stakeholders via Google Meet. Written responses were also used based on informant preference. Compared to the quantitative method, the qualitative method provides a more in-depth understanding of a study. Appointments were set with selected stakeholders (the government sector) with the snowball technique applied to reach the informants. The interview content and the research questions were designed based on the proposed framework.

Table 1: The variable summary						
Variable	Item		Sources			
Social	•	Quality of life	Hafizyar, & Dheyaaldin (2019)			
	•	People education and awareness				
	•	Community development				
Environment	•	Environmental protection	Freiman, Hamm, & Mijoc (2014)			
	•	Habitat restoration and preservation	,			
	•	Law and ethics				

The collection of data stopped once saturation was achieved. The interview protocol and document organization were as follows: 1. The researchers' contact details were given to all respondents; 2. Participants remain unknown; their names were not used in the data presentation; 3. Participants were informed of their right to withdraw or discontinue participation at any time; 4. Only the researchers were able to access the data collections. The interview session contains only topic-related items without any unnecessary issues that could cause misunderstanding. For the analysis, each interview was transcribed word-for-word. By listening to the voice recording from the interviews and writing them on paper, a further analysis was faster and easier, as the information was clearer and more organized. Then, the data underwent thematic analysis via NVIVO software for analysis of the patterns in the data. This step involved data familiarization, coding, theme identification, potential theme determination, theme finalization, and reporting.

# 4. Analysis and Discussion

This study approached ten contacts from the tourism industry's government sector. However, only three were willing to participate in the study. The informants' confidentiality was protected via coding. Other informants could not attend the interview due to meetings, working from home, and quarantine because of the rising COVID-19 cases.

Informant Coding		Informant Description	
1.	Informant 1	Male, 55-60 years old. Ministry of Tourism, Culture and Environment Sabah	
2.	Informant 2	Male. 40-45 years old. Ministry of Tourism, Art, and Culture Sabah	
3.	Informant 3	Female. 40-45 years old. Environment Protection Department.	

The thematic analysis of the informant transcripts produced a final thematic map of the informant variables and identified sub-themes as shown in table 3 and, as per Figure 1. This study used an integrated sustainability model as a conceptual framework to understand the stakeholders' perception of sustainable tourism in Kinabalu Park, Sabah. To this end, two sustainable practices pillars, social and environmental, were used. This study combined the economic and social aspects. The informants' answers showed that they (i.e., the government officials managing Kinabalu Park) understood sustainable tourism. When the informants were asked questions on sustainable practices, they could elaborate and explain their perception in relation to Kinabalu Park.

Question No.	Codes	Themes	Sub-themes
1.	<ul> <li>generates income</li> <li>promoting own culture</li> <li>generates income</li> <li>better management of waste</li> <li>nature conservation</li> <li>generates income</li> </ul>	• quality of life	<ul> <li>Generates</li> <li>income</li> <li>Promoting own</li> <li>culture</li> </ul>
2.	<ul> <li>educational programs</li> <li>educational programs</li> <li>encourage others to build homestays</li> <li>instead of large hotels</li> <li>collaboration with scientists</li> <li>educational programs</li> <li>collaborate with local champions</li> </ul>	• people's education and awareness	<ul> <li>Educational programs</li> <li>Collaboration with others</li> </ul>
3.	<ul> <li>sustainability helps in generating income</li> <li>sustainability helps in conserving</li> <li>valuable resources</li> <li>taking care of the environment</li> <li>sustainability helps in protecting and</li> <li>conserving nature</li> <li>sustainability helps in conserving</li> <li>valuable resources</li> <li>sustainability helps in generating income</li> </ul>	• community development	• Conservation of valuable nature and resources
4.	<ul> <li>strict regulations on the river ecology</li> <li>strict regulations on the river ecology</li> <li>strict rule enforcement in the sub-stations of Kinabalu Park</li> <li>the collection of conservation fees</li> <li>limitations for climbers</li> </ul>	• resource management	Strict regulations
5.	<ul> <li>the forest and nearby communities will be affected</li> <li>people lose their source of income, homes</li> <li>plants and animals may be endangered</li> <li>affect the biodiversity</li> <li>growth of plant affected</li> <li>animal migration</li> <li>erosion, landslide, and water quality issues</li> </ul>	• environmental protection	• A change in biodiversity
6.	<ul> <li>detailed research is made before any habitat restoration is conducted</li> <li>detailed research is made before any habitat restoration is conducted</li> </ul>	• habitat restoration and preservation	• Thorough research

Table 3: The themes and sub-themes derived from the informants.

#### Tourism Stakeholders' Perspective of Sustainable Practices at Kinabalu Park



Figure 1: Final themes

## 4.1 Social

The first variable of this research was "social". Several themes were linked to this variable, quality of life, education and awareness, and community development. Quality of life consisted of the sub-themes "generate income" and "promote one's own culture". Starting with the first, the informants mentioned either a change or increase in income due to the new tourism-based job opportunities.

"...the people who live around the Park slowly but steadily change from depending solely from farming to tourism-based activity which generates more income to their family." -Informant 1

Informant 2 stated that the villagers living near Kinabalu Park had started to get involved with tourism-based activities after the park was established.

"In 1964, they started to do more activities geared towards tourism..." - Informant 2

Meanwhile, Informant 3 said that the locals benefited from sustainable tourism in the area. One example is the entrance fees imposed for areas that fall under the *Tagal hutan* whereby a form of forest stewardship or fishing prohibition (depending on the place).

"Sustainable tourism could also be a source of income to the local communities." – Informant 3

As such, the government officials understood the concept of sustainable tourism, as they all acknowledged that the Park's existence had financially benefited the locals. This scenario is similar to Manzoor et al. (2019), who found that sustainable tourism increases employment rate. The second sub-theme was the promotion of culture in which the local villagers introduced their traditions to tourists. According to Informant 1, the locals earned recognition and income at the same time.

"...the people around Kinabalu benefit from the tourism sector by offering services and promoting their culture (including traditional food, wardrobe, etc.), which not only increase their income but also their quality of life overall." - Informant 1

The above answers the first research objective, i.e., Informant 1 was knowledgeable about how sustainable tourism had positively affected the local community. The promotion of the villagers' traditional culture was regarded as sustainable tourism, as it did not harm the environment. Since the opportunities to promote culture arose only after the establishment of Kinabalu Park (which is a form of sustainable practice), it also answers the second research question. Culture is an essential factor in eradicating poverty, as it can provide sustainable economic growth supported by local solutions and traditions (Froner, 2017). The second variable was education and awareness. This theme also consisted of 2 sub-themes. The first was educational programs. All the informants mentioned subjects regarding educational programs to increase awareness of sustainable practices. Informant 1 talked about programs from various organizations, as well as the Park's effort to educate people through its special program.

"Constant and continued sustainable practices programs from the government agencies, NGO and universities ...educated the people who live surrounding the Park."

"... [Kinabalu Park's] Education and Research Division creates an Ecology Unit to develop and running a permanent education programmed to educate people surrounding the Park and promoting a sustainable practice to lowering pressure for human and ecology conflict and how to live harmony with nature but in the same time still practicing their traditional way of living." - Informant 1

Informant 2 had said that campaigns were common methods for organizations to promote various kinds of programs. Other than that, the informant also said that the Park trained their staff well so that these staff could then go out and educate countless more people. Parallel with the study by Arora and Kaushik (2020), education (specifically higher education) can result in a more sustainable future. Encouraging people to learn more about the benefits of sustainable tourism and practices will not necessarily yield immediate results, but it is better than just letting things be. Hamid et al., (2016) claimed that one of the requirements for a nature-loving attitude—especially during global warming and climate change—is environmental sustainability awareness. The second sub-theme was a collaboration with others. Informants 2 and 3 stated that Kinabalu Park involved other agencies and individuals to spread awareness of sustainable practices.

"[Kinabalu Park] also works with scientists from universities outside Malaysia and they also help to get full information, especially about sustainability..." – Informant 2 "Engagement with the local communities through...identifying and empowering local champions." - Informant 3

The informants were well-versed in the sustainable tourism/practices implemented in Kinabalu Park. By collaborating with other organizations, a sustainability culture could be developed more easily and, among many other benefits, creating sustainability leaders (Pauer et al., 2020). The last theme falling under "social" was community development which had a sub-theme, the conservation of valuable nature and resources. All the informants remarked on how sustainable tourism/practices help conserve the Park's surrounding nature. Community development here refers to people joining forces to solve issues sustainably. For example, since the villagers lived near the park, they should be aware that their daily actions could hugely affect the environment. Refraining from doing harmful things to the environment, like littering, is the ideal scenario.

Tourism Stakeholders' Perspective of Sustainable Practices at Kinabalu Park

"These practices...also indirectly value nature as a valuable resource." - Informant 1 "...protecting and conserving them [the nature] is also part of being sustainable." -Informant 2 "Conservation of valuable resources such as biodiversity and traditional knowledge." -Informant 3

Here, the informants shared similar perceptions and understanding of sustainable tourism at the park, as they all acknowledged the value and sustainability of natural resources. In this study, the local community could have a leader to initiate nature conservation projects.

## 4.2 Environment

The next variable in this study was the environmental aspect. Several themes were linked together in this variable, resource management, environmental protection, habitat restoration and preservation, and law and ethics. These themes also had sub-themes, being too broad and general to relate to the research questions. In resource management, the themes involve strict regulation. Since only the northern part of Kinabalu Park involved resource management, the organizations implemented strict regulations in this area to prevent aggression or uncontrollable waste management. Improper waste management could lead to an unhealthy biodiversity life-cycle and affect the people who depend on it. This explains why Sabah Park takes the river ecology seriously. The northern part needs to be strict. The river ecology must be maintained since it is one of the primary water resources in the area. Non-authorized organizations are not allowed to enter these areas. The sub-theme for "environmental protection" was a change in biodiversity. Government organizations realized that a lack of environmental protection would affect the forest and the nearby communities. Informant 1 stated that when the biodiversity changed, the forest, and nearby communities would be affected.

"If a forest fire occurs, then everyone will be affected. The staff might lose their jobs, the villagers might lose their home, and the many species of flora and fauna in the Park might also be endangered." - Informant 2

Hence, the government organizations see the problem and slowly implement prevention steps to reduce the problem and its causes. This is done by working with the community and the inner circle of the organization, so both the ins and outs of Kinabalu Park are covered. Carr et al., (2016) mentioned that a delay in implementing the correct method worsens the environment and social living conditions. The following sub-variable was the "habitat restoration and prevention" with the sub-theme found through research. Government organizations believed that before taking on conservation or restoration, detailed research should be done. Informants 2 and 3 stated that detailed research on Kinabalu Park could be done before any habitat restoration was conducted.

"Before any habitat restoration is done, detailed research will be conducted." - Informant 2 ".... careful research will be conducted first to ensure that they are not doing anything that will put pressure on nature." - Informant 3

In the past few years, there has been countless research to study the effectiveness of conservation and increase sustainable living (Paiano et al., 2020). This phenomenon shows that the younger generation is now interested in studies on sustainability to benefit the future. For "law and ethics," the sub-theme is nature preservation. Government organizations have resorted to strict regulations to preserve nature. Strict regulations mean that any mistakes can lead to fines, compensation, prison, and punishment. Two out of three of the informants mentioned

that Kinabalu Park adheres to strict rules imposed by the government and only a small part of the park is open for the public. Based on the informants' answers, the government organizations have secured Kinabalu Park from any danger and irresponsible parties. The Sabah Park, and Kinabalu Park, have applied regulations imposed by the State government to make sure the conservation efforts succeed. This strict regulation has helped government organizations to preserve nature more effectively.

## 5. Conclusion

In conclusion, the government organizations in Kinabalu Park, Sabah, have a shared understanding of the local community's quality of life through sustainable income generation by introducing the local culture to outsiders. The government organizations implement sustainable practices in Kinabalu Park, Sabah, by relying on education and awareness. Managing educational programs for the staff and the surrounding community help them to understand the purpose of sustainable practices. This is in agreement with previous studies done by Xin et al., (2016) and Abdul Latip et al., (2015). Furthermore, stakeholders of Kinabalu Park understand sustainable practices, as they see the importance of community development in conserving valuable natural resources and maintaining biodiversity and how further research can help in understanding future sustainable practices. Future research could be done on the other dimensions of sustainable practices that was not covered in this study, as well as from the perspective of the destination attraction management near Kinabalu Park. Future research in other dimensions of sustainable practices related to tourism activities at the destination should be conducted. Environmental, economic, and socio-cultural are some of the aspects of tourism development that should be studied. Additionally, viewpoints from private sectors that manage tourist destinations could also be considered. When trying to boost tourism, the government should rely on private sectors to develop new tourism initiatives. As the essential resources and knowledge at the local government level are sometimes underdeveloped, partnerships with other agencies are crucial. Thus, the private sectors' viewpoints are equally important and should be explored further.

#### References

- Adhariani, D. (2019). Unravelling Stakeholders' Perceptions for Sustainable Tourism: The Case of Water Scarcity in Bali. *In IOP Conference Series: Earth and Environmental Science* (Vol. 306, No. 1, p. 012002). IOP Publishing.
- Arora, J. B., & Kaushik, S. (2020). IoT in education: a future of sustainable learning. In Handbook of Research on the Internet of Things Applications in Robotics and Automation (pp. 300-317). IGI Global.
- Arushanyan, Y., Ekener, E., & Moberg, Å. (2017). Sustainability assessment framework for scenarios–SAFS. Environmental impact assessment review, 63, 23-34.
- Babu, D. E., Kaur, A., & Rajendran, C. (2018). Sustainability practices in tourism supply chain. *Benchmarking: An International Journal*
- Baiquni, M., & Dzulkifli, M. (2019). Implementing Community-based Tourism. In Delivering Tourism Intelligence. Emerald Publishing Limited.
- Barbier, E. B., & Burgess, J. C. (2017). The Sustainable Development Goals and the systems approach to sustainability. *Economics: The Open-Access, Open-Assessment E- Journal*, 11(2017-28), 1-23.
- BirdLife International (2018) Endemic Bird Areas factsheet: Sabah lowlands. Retrieved on 20 May 2021 from http://www.birdlife.org.
- Bramwell, B., Higham, J., Lane, B., & Miller, G. (2017). Twenty-five years of sustainable tourism and the *Journal* of Sustainable Tourism: looking back and moving forward.
- Chan, J. K. L., & Tay, K. X. (2016). Tour operator perspectives on responsible tourism practices: a case of Kinabalu National Park, Sabah. *International Journal of Culture, Tourism and Hospitality Research*.
- Brown, B. J., Hanson, M. E., Liverman, D. M., & Merideth, R. W. (1987). Global sustainability: Toward definition. Environmental management, 11(6), 713-719.

- Carr, A., Ruhanen, L., & Whitford, M. (2016). Indigenous peoples and tourism: the challenges and opportunities for sustainable tourism. *Journal of Sustainable Tourism*, 24(8-9), 1067-1079.
- Costello, H. (2020). Global Ecotourism Market and Adventure Tourism Market 2020 by Tourism Types, Growing Demand, Revenue, Top Regions, Cost Analysis, and Business Opportunities. Orbis Research, Rendering Conscientious Research. Retrieve from http://www.globenewswire.com/attachment-downloadview/1977311/802765/4/1/0/802765.jpg
- Domínguez-Gómez, J. A., & González-Gómez, T. (2017). Analysing stakeholders' perceptions of golf-course-based tourism: A proposal for developing sustainable tourism projects. *Tourism Management*, 63, 135-143.
- Froner, Y. A. (2017). International policies for sustainable development from cultural empowerment. *Journal of Cultural Heritage Management and Sustainable Development*.
- Freimann, A., Ham, M., & Mijoc, J. (2014). Measuring Objective Well-Being and Sustainable Development. Journal of Knowledge Management, Economics and Information Technology, IV (2). Retrieved from http://www.scientificpapers.org/wpcontent/files/1443\_FRAJMAN\_IVKOVIHAMMIJ O-Measuring Objective WellBeing and Sustainable Development Management.pdf
- Hafizyar, & Dheyaaldin (2019) Concrete Technology and Sustainably Development from Past to Future. Sustainable Structures and Materials, *An International Journal*, 2(1), 1-13.
- Hamid, S., Ijab, M.T., Sulaiman, H., Md. Anwar, R., Norman, A.A. (2016). Social media for environmental sustainability awareness in higher education. *International Journal of Sustainability in Higher Education*, 18(4), 474-491. DOI: 10.1108/ijshe-01-2015-001
- Hsu, P. H. (2019). Economic impact of wetland ecotourism: An empirical study of Taiwan's Cigu Lagoon area. *Tourism Management Perspectives*, 29, 31-40.
- Hassan, M. S., & Azhar, S. N. F. (2017). The Impact of Ecotourism in Taman Negara National Park, Malaysia: Tourist Perception on Its Environmental Issues. *Asian Journal of Water, Environment and Pollution*, 14(3), 85-89.
- Hassin, N. H., Koshy, N., Hambali, K., & Kumaran, J. V. (2020). Local Communities Willingness to Pay for Conservation of Ecotourism Resources at Gelam Forest, Kelantan, Malaysia. *In IOP Conference Series: Earth and Environmental Science* (Vol. 549, No. 1, p. 012090). IOP Publishing.
- Hieu, V. M., & Rašovská, I. (2017). Developing Cultural Tourism Upon Stakeholders' perceptions Toward Sustainable Tourism Development in Phu Quoc Island, Vietnam. *Research & Science Today*, 2(14).
- Hsu, C. Y., Chen, M. Y., & Yang, S. C. (2019). Residents' attitudes toward support for island sustainable tourism. Sustainability, 11(18), 5051.
- Jamrozy, U. & Lawonk, K. (2017). The multiple dimensions of consumption values in ecotourism. *International Journal of Culture, Tourism and Hospitality Research*, 11(1), 18-34. DOI: 10.1108/IJCTHR-09-2015-0114
- Kapera, I. (2018). Sustainable tourism development efforts by local governments in Poland. *Sustainable cities and society*, 40, 581-588.
- Latip, N. A., Jaafar, M., Marzuki, A., Roufechaei, K. M., Umar, M. U., & Karim, R. (2020). *The Impact of Tourism* Activities on The Environment of Mount Kinabalu, Unesco World Heritage Site. Planning Malaysia, 18(14).
- Skeiseid, H., Derdowski, L. A., Grahn, A. H., & Hansen, H. (2019). Motivating Sustainable Change in Tourism Behavior: The First- and Third-Person Effects of Hard and Soft Messages. Sustainability, MDPI, Open Access Journal, 12(1), 1-13.
- Lindström, K. N., & Larson, M. (2016). Community-based tourism in practice: evidence from three coastal communities in Bohuslän, Sweden. Bulletin of Geography. Socio- economic Series, 33(33), 71-78.
- Mandulangi, J., & Towoliu, B. I. (2019). Exploring Local Community Perception to The Ecotourism Development Attraction At Tumpa Mount Forest Park, Manado, Indonesia. *International Journal of Applied Sciences in Tourism and Events*, 3(2), 221-232.
- Manzoor, F., Wei, L., Bányai, T., Nurunnabi, M., & Subhan, Q. A. (2019). An examination of sustainable HRM practices on job performance: An application of training as a moderator. *Sustainability*, 11(8), 2263.
- Mihanyar, P., Rahman, S.A, & Aminudin, N. (2016). Investigating the effect of national park sustainability on national park behavioral intention: Kinabalu National Park. *Proceedia Economics and Finance*, 37, 284-291.
- MOTAC, (2020). National Tourism Policy 2020-2030 Executive Summary. Ministry of Tourism, Arts and Culture Malaysia. Retrieved from http://motac.gov.my/en/download/category/114-dasar-pelancongan-negara-dpn-2020-2030

- Moyer, J. D., & Hedden, S. (2020). Are we on the right path to achieve the sustainable development goals? *World Development*, 127, 104749.
- Muresan, I. C., Oroian, C. F., Harun, R., Arion, F. H., Porutiu, A., Chiciudean, G. O., & Lile, R. (2016). Local residents' attitude toward sustainable rural tourism development. *Sustainability*, 8(1), 100.
- Munasinghe, M. (2019). Sustainability in the Twenty-first Century: Applying Sustainamics to Implement the Sustainable Development Goals. Cambridge University Press.
- Paiano, A., Crovella, T., & Lagioia, G. (2020). Managing sustainable practices in cruise tourism: the assessment of carbon footprint and waste of water and beverage packaging. *Tourism Management*, 77, 104016.
- Pauer, S.U., Pilon, A., & Badelt, B. (2020). Strengthening city-university partnerships to advance sustainability solutions: a study of research collaborations between the University of British Columbia and City of Vancouver. *International Journal of Sustainability in Higher Education*, 21(6), 1189-1208. DOI: 10.1108/IJSHE-10-2019-0
- Pegan, T. M., Gulson-Castillo, E. R., Biun, A., Byington, J. I., Moyle, R. G., Yu, F. T. Y., & Sheldon, F. H. (2018). An assessment of avifauna in a recovering lowland forest at Kinabalu National Park, Malaysian Borneo. *Raffles Bulletin of Zoology*, 66.
- Peralta, A., Carrillo-Hermosilla, J., & Crecente, F. (2019). Sustainable business model innovation and acceptance of its practices among Spanish entrepreneurs. *Corporate Social Responsibility and Environmental Management*, 26(5), 1119-1134.
- Purvis, B., Mao, Y., & Robinson, D. (2019). Three pillars of sustainability: in search of conceptual origins. Sustainability Science, 14(3), 681-695.
- Qian, J., Shen, H., & Law, R. (2018). Research in sustainable tourism: A longitudinal study of articles between 2008 and 2017. Sustainability, 10(3), 590.
- Renfors, S. M. (2020). Stakeholders' Perceptions of Sustainable Tourism Development in a Cold-Water Destination: The Case of the Finnish Archipelago. *Tourism Planning & Development*, 1-19.
- Sánchez Cañizares, S. M., Castillo Canalejo, A. M., & Núñez Tabales, J. M. (2016). Stakeholders' perceptions of tourism development in Cape Verde, Africa. *Current Issues in Tourism*, 19(10), 966-980.
- Sheldon, R. A. (2019). The greening of solvents: Towards sustainable organic synthesis. *Current Opinion in Green* and Sustainable Chemistry, 18, 13-19.
- Skeiseid, H., Derdowski, L. A., Grahn, A. H., & Hansen, H. (2019). Motivating Sustainable Change in Tourism Behavior: The First- and Third-Person Effects of Hard and Soft Messages. Sustainability, MDPI, Open Access Journal, 12(1), 1-13.
- Swanson, D. (2015). Mainstreaming the 2030 Agenda for Sustainable Development: Interim Reference Guide to UN Country Teams. United Nation Development Group. Retrieved from: https://unsdg.un.org/resources/mainstreaming-2030-agenda-sustainable-development-reference-guide-uncountry-teams
- Thompson, P. B. (2017). The spirit of the soil: Agriculture and environmental ethics. Taylor & Francis.
- UNESCO, (2017) Division for Inclusion, Peace and Sustainable Development, Education Sector. Education for sustainable development goals: Learning objectives. Retrieved from: https://www.unesco.de/sites/default/files/201808/unesco\_education\_for\_sustainable\_development\_goals.p df
- Wondirad, A. (2020). Ecotourism development challenges and opportunities in Wondo Genet and its environs, southern Ethiopia. *Journal of Place Management and Development*.
- World Wide Fund for Nature Malaysia (WWFNM) (2016) National Ecotourism Plan, Part 4 Ecotourism Potential: Site listings. A Study prepared for The Ministry of Culture, Arts and Tourism, Malaysia. Retrieved from; http://repository.wwf.org.my/technical\_reports/N/NationalEcotourismPlanMalaysiaPart3.pdf