



Assessing the Community Participation in Ecotourism at Ulu Muda Forest Reserve, Malaysia

9

Zaiton Samdin, Siti Intan Nurdiana Wong Abdullah, and Thanam Subramaniam

Abstract

The government agencies have created opportunities in the provision of ecotourism to encourage the participation of local communities. The growing demand for ecotourism provides employment opportunities to raise their standard of living. The Ulu Muda Forest Reserve (UMFR) is one of the most attractive natural areas in Kedah, Malaysia, and has the potential for ecotourism. The present study analyses the involvement of the local community at UMFR based on their motivation, perceived benefits and conflicts. Using purposive sampling, an interview-based survey was performed among the local community involved in ecotourism. This study identified various socio-economic advantages stemming from ecotourism activities, but the lack of equal opportunities negated the influence on their participation. Their participation in ecotourism was highly influenced by the absence of conflict and driven by the presence of intrinsic motivation. Community participation does stimulate a sense of self-belongingness, thus increasing awareness towards conservation to sustain their source of living. Hence, community participation is one of the aspects that will

Z. Samdin (✉)

Institute of Tropical Forestry and Forest Products (INTROP), Universiti Putra Malaysia (UPM), Serdang, Selangor, Malaysia

School of Business and Economics, Universiti Putra Malaysia (UPM), Serdang, Malaysia
e-mail: zaisa@upm.edu.my

S. I. N. W. Abdullah

Faculty of Business and Communications, INTI International University, Nilai, Malaysia

T. Subramaniam

Centre for Research and Innovation in Tourism (CRiT) & School of Hospitality, Tourism and Events, Taylor's University, Subang Jaya, Malaysia

© The Author(s), under exclusive license to Springer Nature Singapore Pte Ltd. 2023

Z. Samdin et al. (eds.), *Tropical Forest Ecosystem Services in Improving Livelihoods For Local Communities*, https://doi.org/10.1007/978-981-19-3342-4_9

155

ensure the success of the ecotourism industry towards the sustainability of natural resources by providing relevant assistance in policy-making.

Keywords

Ecotourism · Participation · Involvement · Motivation · Ulu Muda Forest Reserve · Local community

9.1 Introduction

Ecotourism is considered a form of nature-based tourism that uses natural resources as a key component. Ecotourism contributes to the economic, social and environmental development of the local area. The ecotourism travel experience is particularly related to undisturbed and unpolluted natural areas such as national parks, protected areas, coastal and marine areas, wildlife sanctuaries and other protected flora, fauna and habitat areas (Cheung & Fok, 2014). Many nature-based activities related to ecotourism experiences—wildlife viewing, bird watching, hiking, trekking, nature education and more. These activities are considered attractive ecotourism products because they provide a unique experience for tourists. Therefore, ecotourism is considered an important source in generating economic benefits to the local community through tourism activities and spending.

The Ulu Muda Forest Reserve (UMFR) shows the richness of its genetic resources. The presence of a group of elephants bathing in the river and eating grass in the wild further adds to the uniqueness of this forest. The forest has also recorded hundreds of species of flora and fauna. It is also a habitat for endangered species such as tigers, tapirs and hundreds of bird species. Fish resources are also one of the attractions of anglers in addition to Tualang honey, which is an icon to the UMFR. Among the ecotourism attractions in the UMFR are the Hot Springs Saltlick, caves in Labua Cave and wildlife boat cruise activities. Tourists to UMFR can stay at the Earth Lodge, Kuala Labua. The journey to UMFR starts at Muda Lake Jetty. Then, tourists will take a boat for an hour and a half across lakes and rivers. Saltlick is also one of the factors leading to the attraction of large and small mammal species, with the largest number of saltlicks recorded in this forest. This diversity of genetic resources further contributes to a balance of biological control and, in turn, becomes one of the sources of ecotourism attractions in this forest.

The UMFR is located at the midpoint latitude of $6^{\circ} 2'57.58''$ N and longitude $100^{\circ} 58'54.99''$ E in Sik District, Kedah. It is located at an altitude of up to 1000 m in forests classified in the formation of lowland forests (Swaine, 1989). The UMFR is located in the northern state of Kedah, and it is the largest forest reserve in the state, accounting for about half of the forest area in Kedah. It is accessible from the jetty at Muda Lake, and the nearest village is Gubir. The UMFR consists of three main lakes, namely, Ahning Lake, Muda Lake and Pedu Lake. The largest lake is Pedu Lake, which covers an area of 15,500 ha. Muda Lake is smaller at 3382 ha, but it has a larger catchment area, and in this lake, there is a 6.6 km long tunnel that channels

water from Muda Lake to Pedu Lake and is located in the UMFR. The UMFR is important as a water catchment area as water from the UMFR is channelled to three main dams, namely, Pedu Dam, Muda Dam and Ahning Dam.

Therefore, this study aims to identify community participation in ecotourism in UMFR. More specifically, this research examines the local community's participation and their motivation to involve in ecotourism. This study also identifies the benefits and conflicts that ecotourism presents to the local community. This study is essential in understanding the participation and involvement of communities to produce guidance for better management of ecotourism development in UMFR. The findings of this study will provide a functional guideline to authorities and organizations such as the Kedah state government, the Ministry of Tourism and Culture Malaysia, site operators or service providers of UMFR, travel agencies and tour guides. The results will also enrich knowledge and information on the UMFR, particularly through implementing policy related to the local community's participation and involvement in the management of ecotourism destinations.

9.2 Community Participation for Ecotourism Sustainable Development

Community participation is often viewed as a keystone in achieving the objectives of sustainable ecotourism development (Bello et al., 2016; Taylor, 1995). The involvement of the community in the ecotourism sector is believed to be voluntary, whereby local individuals participate in the decision-making and ecotourism activities to attain a sustainable livelihood (Kala & Bagri, 2018). In hindsight, community participation in ecotourism is capable of motivating locals to take on more responsibility in entrepreneurial ventures and collaborations with various internal and external stakeholders to promote a more holistic and sustainable tourism development (Idziak et al., 2015). Ultimately, this cohesive and integrated relationship increases the success in implementing sustainable ecotourism development (Dyer et al., 2007). Community participation is also viewed as essential in the collective response towards promoting social agendas and building resilience, especially during the pandemic (Marston et al., 2020).

Interestingly, past researchers have sought to understand community participation based on different levels or stages (Tosun, 2006; Kantsperger et al., 2019). Table 9.1 summarizes the various typologies of participation. One of the earliest and most widely used community participation models was developed by Arnstein (1969). According to Arnstein's (1969) model, community participation is induced by benefits and power of decision-making that involves eight levels. Hart (1992) developed his model based on Arnstein (1969) but in youth participation. In comparison, Wilcox's (1994) model was more consolidated with only five levels, namely, information, consultation, deciding together, acting together and supporting initiatives. In the studies of tourism, Jamal and Getz (1995) divided local community participation simply into two main categories—passive and active. They conceded that all forms of consultative and non-voluntary participation could be merged as

Table 9.1 Typology of participation (Arnstein, 1969; Hart, 1992; Wilcox, 1994; Jamal & Getz, 1995; Tosun, 1999; Shier, 2001; Baksh et al., 2012; Kantsperger et al., 2019)

Arnstein (1969)	Hart (1992)	Wilcox (1994)	Jamal and Getz (1995)	Tosun (1999)	Shier (2001)	Baksh et al. (2012)	Kantsperger et al. (2019)
Citizen control	Shared decision-making	Supporting initiatives	Active	Spontaneous participation	Shared power	Evaluating shared benefits	Legitimated
Delegated power	Youth lead and initiate action	Acting together				Managing	Collaborative
Partnership	Adult-initiated	Deciding together			Involved	Decision making	
Placation	Consulted and informed		Passive	Induced participation	Consulted		Consultative
Consultation	Assigned but informed	Consultation			Supported	Planning	
Informing	Tokenism	Information					Informative
Therapy	Decoration			Coercive participation	Listened to		Non-participative
Manipulation	Manipulation						

Source: Author compilation

passive participation. Meanwhile, active participation is where the locals are acting voluntarily and empowered to be involved to make their own decisions and have full control of all the ecotourism activities that would impact their livelihood, family, culture and community (Jamal & Getz, 1995). Similarly, in the tourism context, Tosun (1999) conceded that community participation is not universal and differs based on destination that can be divided into coercive, induced and spontaneous participation. Shier developed his model in 2001, which was revisited empirically on Nicaraguan children's participation in 2009. According to Shier (2001), participation goes through five stages—from being listened to, supported, consulted and involved to finally sharing power and responsibility for decision-making.

Alternatively, community participation was investigated from a tourism development perspective by determining the level of involvement in different stages in the process, namely, planning, decision-making, managing and evaluating benefit-sharing (Baksh et al., 2012). They confirmed that the majority of the villagers were involved, especially in the evaluation stage of the ecotourism activities in Tambaksari Village, Indonesia (Baksh et al., 2012). A similar empirical result applying Baksh's model was confirmed among the local community's participation in the ecotourism at the Pahang National Park, Malaysia (Tan et al., 2020) and at the Mwaluganje Elephant Sanctuary, Kenya (Kihima & Musila, 2019). These studies established that local community participation was restricted to permitting benefit-sharing, but they lacked participation and decision-making power during the planning and implementing stages (Kihima & Musila, 2019). A more recent study undertaken by Kantsperger et al. (2019) explored local participation in tourism development at an alpine destination in Germany. They focused on identifying the patterns behind the participation instead of the reasons. Through qualitative content analysis conducted, they categorized community participation into three main categories—namely non-participation, unofficial participation and official participation, which bear similarities to Tosun's (1999) model of participation in which the highest level of participation indicated a form of shared responsibility and power of decision-making.

Nonetheless, understanding local community participation for sustainable ecotourism development may vary across different cultures, regions and countries (Eshun & Tichaawa, 2020). Some researchers have argued that there is a difference between developed and developing countries due to the influences of social and economic power within the communities (Sebele, 2010; Liu, 2006; Njoh, 2002). According to Liu (2006), there was a lack of local participation in tourism projects in rural areas in Malaysia due to financial barriers even though most of the ecotourism projects involved mainly prominent and wealthy investors, including foreign private sectors (Wondirad, 2017). A recent study proposes that spontaneous, active and direct participation in ecotourism should be grounded on encouraging benefit acquisition and benefit-sharing among the local community (Sithole et al., 2021).

The level of participation is highly dependent on the situation, objectives, benefits, motivation, barriers and accessibility (Sosa & Brenner, 2021; Zhang et al., 2020). One of the well-known attempts to construct an integrated model to explain the antecedents of participation is the motivation–opportunity–abilities

(MOA) model, which is applied in this study (Ölander & Thøgersen, 1995). This concept was applied by Jepson et al. (2014) to reveal the factors that enable or impede participation in local events and festivals. Generally, ‘motivation’ is internal and personal satisfaction derived from sensory or emotional feelings that improve the overall experience and fulfil one’s physiological needs (Lee & Wu, 2021). ‘Opportunities’ are presented through beneficial consideration and accessibility to participate in the planning and execution of ecotourism. The ‘ability’ concept in the MOA model is a conflicting factor that acts as barriers or constraints to perform the behaviour. This is often developed from one’s awareness, experience, knowledge and limitation of resources (Jepson et al., 2014). Either way, the lack of understanding of community participation theory, especially in the ecotourism development context, implies the need for further investigation. The following sections discuss the three concepts underpinning the MOA model as the key antecedents to predict community participation in ecotourism at UMR.

9.2.1 Motivation for Community Participation

Individual motivation as a proxy that guides behaviour has always been a relatively interrelated concept (Chou & Chang, 2017). Motivation has been regarded as an internal and personal process that leads to individual direction, effort and performance of behaviour (Schunk & DiBenedetto, 2020). Individuals who set goals of what they want to achieve can strengthen motivation. Therefore, it is argued that highly motivated individuals with a positive mental state are more likely to successfully participate in any activities (Fei-Hu et al., 2020). Local community participation in ecotourism projects which stems from voluntary actions based on internal desires and motivations as postulated in the MOA model (Ölander & Thøgersen, 1995) rather than the external pressure is said to be the highest achievement in the level of participation according to many previous typologies by Arnstein (1969), Tosun (1999) and Shier (2001).

Moreover, the presence of respected local leaders in community programmes can encourage a sense of ownership and participation among the local individual (Shim & Lee, 2003). On the other hand, the participation in ecotourism activities among youths was found to be motivated by their feelings to possibly take on the role of future leaders in this sector (Abukhalifeh & Wondirad, 2019; Selby et al., 2020). Additionally, local youths’ participation is motivated by the need to protect their surrounding environment and improve their overall quality of life (Rahman & Singh, 2019; Agyeman et al., 2019). The overall sense of enjoyment, satisfaction and well-being relatively affects an individual’s willingness to participate actively (Gal, 2017).

9.2.2 Benefits of Ecotourism on Community Participation

Largely, the coverage of ecotourism development contributes to the public welfare of local communities, but the degree and opportunity to gain benefits differ for each individual (Ma & Wen, 2019). The proponents of ecotourism as a sustainable development among communities argued that local participation, starting from the planning stage until the evaluation of shared benefits state, is necessary to ensure that each resident in the destination area would have the opportunity to gain the benefits (Simmons, 1994). Ecotourism has been highly publicized as a form of tourism activity that is more responsible and generates benefits for locals (Regmi & Walter, 2017). However, it was suggested that only a small and restricted number of locals had acquired the benefits of ecotourism-related activities in the community (Campbell, 1999).

The opportunities to benefit from ecotourism activities as reflected in the MOA model include employment priorities, provision of income, improved infrastructure and social welfare, which are said to depend on the ability of the locals to control how the resources are used and allocated to avoid any exploitation (Mensah, 2017). Furthermore, the level of community participation in ecotourism is fostered by how the project affects them at a personal level, especially by the perceived economic benefits of the project (Jepson et al., 2014). Access to ecological resources and priority in monetary gains remains a key concern in determining locals' support towards ecotourism projects (Akyeampong, 2011). A past study also suggested that many locals engage primarily in various ecotourism activities as a livelihood sustenance strategy that provides an opportunity while recognising that the benefits are somewhat unstable due to its seasonality (Harilal & Tichaawa, 2018). Hence, supporting and diversifying pathways that enhance primary income play a major role in inspiring the local community to become key players in a more equitable ecotourism development (Phelan et al., 2020). With greater diversification of ecotourism activities in the destination, it provides locals with more opportunities to gain economic benefits from participation through direct and indirect employment (Sosa & Brenner, 2021).

Moreover, the perceived social benefits are often associated with access to training in enhancing ecotourism-related skills and promoting interaction among stakeholders (Poudel & Joshi, 2020). Higher levels of social benefits would strengthen the local community's feelings of engagement and involvement in ecotourism activities (Sosa & Brenner, 2021). Thus, it is implied that local communities who can obtain a cumulative benefit from ecotourism are more likely to participate actively, especially at the planning and decision-making stage (Li, 2006).

9.2.3 Causes of Conflict on Community Participation

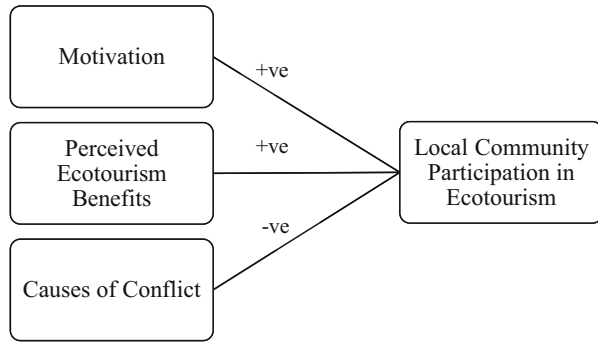
Despite the motivation and opportunities presented by ecotourism, several challenges could hinder the ability of local communities to participate, resulting in unsustainable development of this sector (Ölander & Thøgersen, 1995; Jepson et al.,

2014). For instance, conflicts may occur between local communities and other stakeholders such as the indigenous group, government agencies, private companies and tourists. In pursuing conservation and livelihood goals, the lack of clear policies and guidelines often constitute conflict (Dimitriou, 2017). According to Tosun (2000), such conflict may arise in the form of barriers, namely, operational, structural and cultural barriers. The operational barriers often occur due to the lack of proper coordination and collaboration. Kia (2021) concurs in the sense that poor coordination and insufficient information sharing between the stakeholders often take place in developing countries due to the remoteness of the ecotourism destination. Moreover, the bureaucracy and power struggle in the administration of the area also pose challenges to smoothly implementing ecotourism. Some local communities may be unaware of the legal requirements that may weaken their desire for participation in ecotourism development (Bluwstein, 2017). Meilani et al. (2019) also argued that many locals felt stifled due to their lack of operational skills, lower educational background and insufficient training that hindered their participation, especially at the decision-making levels.

The structural barriers refer to the physical aspect of externalities of the destination, such as the lack of proper infrastructure, poor safety conditions and unmanaged resources alongside the absence of effective marketing campaigns (Neger, 2021). Moreover, due to the increase in tourists that demanded better facilities, locals had to pay an inflated rate to use these facilities in the park (Acquah et al., 2017). According to a study by Kunjuran and Hussin (2017), which was conducted in Malaysia, well-maintained infrastructure and recreational facilities that are accessible and affordable to the local community would increase their likelihood to participate in ecotourism such as homestay programmes.

The cultural barriers also play a major role in determining the local community's willingness to participate in ecotourism due to the lack of awareness among tourists (Bhan & Singh, 2014). Although local communities recognize the economic benefits of ecotourism, some are reluctant to welcome tourists for fear that it will cause negative impacts such as social illnesses and diminishing local cultures that inhibit their commitments to pursue this path (Safitri & Putra, 2018). For instance, in a study conducted by Jahan and Akhter (2018) in Bangladesh, local elders observed that the youths in their village started to change their dressing style that imitates the tourists. The lack of clear communication and opportunity for interactive ecotourism activities between host and visitor may lead to a clash of cultural values which can be enhanced through local cultural shows (Sangpikul, 2017). The lack of self-esteem among local community members on the uniqueness of their heritage leads to frustration, and the need for recognition may cause them to be disinterested to promote the ecotourism initiative (Zacarias & Loyola, 2017). Higher causes of conflict seem to lead to lower participation levels, yet the various conflicts discussed above differ between destinations. Hence, these barriers must be investigated and addressed to ensure higher levels of community participation in ecotourism development.

Fig. 9.1 Conceptual framework. (Source: Adapted from Jepson et al. (2014))



9.3 Conceptual Framework

Following the review of literature presented earlier, Fig. 9.1 shows the conceptual framework. Below conceptual framework reflects the main components of the MOA model to answer the research objectives. Although UMFRR has a plethora of flora and fauna, the success of ecotourism depends on the participation and commitment of the local community. Strong participation from the local community would be a key factor in determining a well-managed ecotourism sector that will not jeopardize the natural resources of UMFRR. Firstly, we hypothesized that higher levels of motivation will lead to higher levels of community participation in ecotourism activities. As discussed earlier, intrinsic motivation such as self-enjoyment, sense of achievement and overall well-being is a strong driver of their efforts and behaviour. Next, perceived ecotourism benefits present the ‘opportunities’ element of the MOA model, whereby the presence of various chances and the ability of the local community to grasp the opportunity to gain the benefits would have a positive and significant impact on their participation. However, the inability of locals to participate due to the existence of various conflicting reasons acts as a barrier and therefore is postulated to hinder their participation in the ecotourism activities. The items that are used to measure the respective variables are presented in Table 9.4.

9.4 Methodology

A quantitative research approach was adopted to examine the involvement of the local community in ecotourism and conservation activity in the UMFRR. Saunders et al. (2012) indicated that the quantitative method should be associated with positivism, which focuses on examining existing theories while analysing the relationship between variables.

(a) Survey Instrument: Questionnaire

One set of questionnaire surveys applying the 5 Likert scale was used for data collection, whereby 1 is strongly disagree, 2 is agreed, 3 is neutral, 4 agrees and

Table 9.2 Reliability analysis

Variables	Cronbach's alpha	Number of items
Motivation	0.923	10
Benefits of ecotourism	0.940	14
Causes of conflict	0.966	16
Participation	0.901	7

5 strongly agrees. In this study, motivation, benefits of ecotourism and causes of conflict were used as independent variables, while local community participation in ecotourism was used as the dependent variable. Hence, sections A, B and C of the questionnaire contained statements related to the independent variables; Section D had statements for the dependent variable and Section E on demographic information. Throughout Section A–D, the variables are measured using a 5-point Likert scale. The statements were adapted from Kihima and Musila (2019), Noorhayati et al. (2015) and Adeleke and Nzama (2013).

(b) Research Sampling

The survey was conducted face-to-face between July 2021 and August 2021 at UMFR. A purposive sampling technique was executed in this study, mainly targeting only local communities currently actively involved in ecotourism at UMFR, whether directly or indirectly. The criteria of the respondents include (a) 18 years old and above and (b) actively involved in ecotourism in UMFR. Therefore, 32 qualified respondents were approached for this study. Quantitative data gathered via the questionnaire survey were analysed using Statistical Package for Social Sciences (SPSS).

9.4.1 Reliability Analysis

The correlation analysis is a statistical technique used to examine the strength and direction of the linear relationships between two variables (Pallant, 2013). Guildford's rule of thumb is used as a guideline to run the Pearson Correlation Coefficient Test to determine the strength of the association between the dependent variable and independent variables (Fadhil et al., 2007). Guildford's rule of thumb indicated that the *R* value less than 0.2 illustrates a negligible relationship, 0.20–0.40 as a low relationship, 0.40–0.70 as a moderate relationship, 0.70–0.90 as a high relationship and above 0.90 as a very high relationship. Cronbach's alpha coefficient was used, and the observed coefficient values for all variables in this study were above 0.90. The outcomes of the reliability test are presented in Table 9.2.

9.5 Results and Discussion

This section presents the findings of the study. It includes the description of the socio-demographic characteristics of the respondent; descriptive analysis of motivation, benefits of ecotourism and causes of conflict; and correlation analysis between motivation of ecotourism, causes of conflict and local community participation in ecotourism.

9.5.1 Socio-Demographic Characteristics of the Respondents

The survey was completed by 32 respondents ranging from 21 to 59 years old. These respondents' characteristics were divided into different categories as shown in Table 9.3. The respondents comprised 30.3% aged between 46 and 55 years old and 6.1% aged above 55 years old, 43.7% females and 56.3% males, 87.5% with secondary school education, 9.4% undergraduate and 3.1% postgraduate levels. Their monthly average income varied from less than MYR1500 to more than MYR5500. The largest proportion comprises 46.9% with middle income between MYR1500 and MYR2500, followed by 34.4% with income between MYR2500 and MYR3500. The highest income level proportion was 46.9%, whereas the lowest was 3.1%. The highest household number was between 4 and 6 (87.6%). In terms of occupation of the respondents, 75.0% were doing business or self-employed, and 15.6% were the private staff. Their role in ecotourism varies, including the provision of transportation (25.0%), followed by the lodging provider (21.9%), local F & B provider (18.8%) and small trading enterprise (15.6%).

9.5.2 Descriptive Analysis of Motivation, Benefits of Ecotourism and Causes of Conflict

(a) *Motivation*

Community motivation to participate in the ecotourism sector was determined using ten statements (Table 9.4).

In this study, 71.9% of the respondents agreed, and 28.1% strongly agreed that they enjoyed sharing the knowledge with others through participation in ecotourism activities. 68.8% agreed that participation has helped the locals to learn new things. The findings also indicated that 96.9% of the respondents agreed that they earn respect from others by contributing to the community through community participation. Meanwhile, 3.1% expressed a neutral stance to the statement. 96.9% agreed that they are motivated to participate in ecotourism activities because they felt it helped improve their quality of life. In comparison, 3.1% expressed a neutral stance to this statement. Hence, it can be concluded that the majority of the local communities were highly motivated to participate in ecotourism activities. They are mainly driven by their intrinsic needs, such as feelings of enjoyment, knowledge-sharing and personal

Table 9.3 Socio-demographic characteristics of the respondents

Demographic variable		Frequency	Percent
Age (years old)	18–25	7	21.2
	26–35	6	18.2
	36–45	8	24.2
	46–55	10	30.3
	>55	2	6.1
Gender	Male	18	56.3
	Female	14	43.7
Marital status	Married	24	75.0
	Single	8	25.0
	Others	–	–
Education level	Informal school	–	–
	Primary school	–	–
	Secondary school	28	87.5
	Certificate	–	–
	Undergraduate	3	9.4
	Postgraduate	1	3.1
Monthly income (MYR)	<MYR1500	4	12.5
	MYR1500–2500	15	46.9
	MYR2500–3500	11	34.4
	MYR3500–4500	–	–
	MYR4500–5500	1	3.1
	>MYR5500	1	3.1
Household number	<1	–	–
	1–3	3	9.3
	4–6	28	87.6
	7–9	1	3.1
	>9	–	–
Current work status	Government staff	2	6.3
	Private staff	5	15.6
	Business/self-employed	24	75.0
	Pensioner	1	3.1
	Unemployed	–	–
	Others: please specify	–	–
Role in ecotourism	Local tour guide	2	6.3
	Small trading enterprise	5	15.6
	Craftsman/handicraft maker	–	–
	Local tour operator/owner of travel agency	2	6.3
	Transportation provider	8	25.0
	Lodging provider	7	21.9
	Local F & B provider	6	18.8
Local crop/livestock farmer	2	6.3	

Table 9.4 Motivation influence the community participation

Statements	Strongly disagree (%)	Disagree (%)	Neutral (%)	Agree (%)	Strongly agree (%)
I find the community participation enjoyable	–	–	–	81.3	18.8
I enjoy sharing my knowledge with others via community participation	–	–	–	71.9	28.1
Community participation allows me to learn new things	–	–	–	68.8	31.2
Community participation enables me to become more proficient and enhance my expertise	–	–	–	65.6	34.4
I love to take part in discussions about community issues because I can help my community	–	–	9.4	68.8	21.9
I like to assist other community members with their questions/ inquiries	–	–	–	81.3	18.9
I earn respect from others by contributing to the community via participation	–	–	3.1	75.0	21.9
I actively participate in the activities organized by the community because it helps to improve our community’s quality of life	–	–	3.1	84.4	12.5
I like to participate in community activities because it enhances my satisfaction	–	–	–	78.1	21.9
I enjoy participating in community activities because it allows me to do the activities on my own time	–	–	3.1	78.1	18.8

satisfaction. It means a person’s enjoyment, intention to share knowledge with others and satisfaction encourage him or her to actively participate in ecotourism activities. Similarly, Liu et al. (2014), Moyle et al. (2010), Nault and Stapleton (2011) and Styliadis and Terzidou (2014) found economic benefits, experience stimulation, interest in environmental conservation and intention to improve the socio-economic motivating community involvement in the ecotourism activities. However, Hung et al. (2011) stressed the significant negative relationship between motivation and community participation.

(b) *Benefits of ecotourism*

In this study, the benefit of ecotourism was investigated through 14 statements, and the results are presented in Table 9.5.

The outcomes of the study indicated that 68.8% of the respondents agreed that the local community received priority in jobs and 31.2% of respondents strongly agreed with this. The findings revealed that 53.1% agreed that the

Table 9.5 Benefits of ecotourism to the community of UMFR

Statements	Strongly disagree (%)	Disagree (%)	Neutral (%)	Agree (%)	Strongly agree (%)
Community receive priority in jobs	–	–	–	68.8	31.3
Traditional skills of local people built	–	–	–	53.1	46.9
Local people have access to UMFR resources	–	3.1	15.6	62.5	18.8
Opportunity to sell local product available in UMFR	–	3.1	9.4	59.4	28.1
Income increases through assisting small local businesses	–	–	–	53.1	46.9
Provision of equipment for schools and clinics	–	–	–	59.4	40.6
Improvement of linking roads to communities	–	–	–	50.0	50.0
The local community receive access to the wildlife resources	–	–	12.5	62.5	25.0
Improvement in infrastructure (parking, toilet facilities, convenience shops) to communities	–	–	–	53.1	46.9
Income from practising local crafts, jungle trekking, wildlife watching, etc.	–	–	–	50.0	50.0
The community receives economic benefits from UMFR	–	–	12.5	56.3	31.3
Ecotourism courses and training provided to the local community	–	–	–	65.6	34.4
Opportunity to voice out local communities' opinions in planning and execution of ecotourism in UMFR	–	–	–	65.6	34.4
Training to enhance the local communities tour guiding skills and language	–	–	–	65.6	34.4

traditional skills of local people had improved while another 46.9% of respondents strongly agreed. This study revealed that 53.1% of them agreed that having small local businesses at UMFR helped enhance their income, and 46.9% strongly agreed. Meanwhile, 59.4% of the respondents agreed that the ecotourism activities helped them with equipment for schools and clinics, and another 40.6% strongly agreed with this. Also, all of the respondents agreed that ecotourism activities in UMFR had improved road access and the standard of living of the local community. 53.1% agreed, and 46.9% strongly agreed that ecotourism activities at UMFR helped to improve the infrastructure such as parking, toilet facilities and convenience shops. They also agreed with higher

income obtained from various ecotourism activities such as selling local crafts, jungle trekking guiding, facilitating the wildlife watching activities and so on. In addition, 87.6% of the respondents agreed that the ecotourism activities did provide economic benefits. Overall, it can be concluded that ecotourism supports their socio-economic conditions by providing necessary facilities and infrastructures. Besides conservating the nature and environment, ecotourism stakeholders also need to prepare the necessary infrastructure and facilities such as toilets, accommodations, convenience shops, information counters, Wi-Fi services and so on which help to improve the socio-economics of local communities. Likewise, Rasoolimanesh et al. (2017) and Pasape et al. (2015) stressed that the community is interested to participate in ecotourism activities since it helps to generate the income benefits and social benefits and enhance the quality of life of residents by generating more job opportunities and supporting the infrastructure development. In addition, other benefits of ecotourism such as the refurbishment of local culture, building partnership, increasing economic benefits and improving economic and social conditions encourage community participation in the ecotourism activities (Stylidis & Terzidou, 2014; Moyle et al., 2010; Ali et al., 2022).

However, when inquiring about access to wildlife resources, only 87.5% of the respondents agreed with this statement. On the other hand, 62.5% agreed, and 25.0% strongly agreed that they have access to the wildlife resources at UMFR. Meanwhile, 12.5% selected a neutral option for this statement. Hence, it indicated that despite the various benefits obtained, not all local communities receive equal access to the wildlife resources at UMFR.

(c) *Causes of conflict*

The causes of conflict were examined through 16 statements, and the corresponding results are shown in Table 9.6.

In this study, 96.9% of the respondents disagreed that tourists do not respect the local culture during their visitation to UMFR, while 3.1% felt neutral for this statement. 96.9% disagreed that locals could not use the recreational facilities as opposed to 3.1% of the respondents who agreed with this statement. In addition, 93.8% disagreed that they were not allowed to voice their views in the decision-making process. Contrary, a minority of 3.1% agreed with this statement. On the ecotourism benefits, 96.9% disagreed that there is no benefit derived from ecotourism and conservation activities. Only 3.1% agreed with this statement. 96.9% of the respondents disagreed that ecotourism activities led to more crimes among local communities. Only 3.1% felt neutral on this statement. On limited employment opportunities, 96.9% disagreed. In the execution of park functions among locals, 96.9% of the respondents did not agree that there is any implementation of ecotourism park activities without consultation with the local communities. Around 93.8% of the respondents disagreed that ecotourism activities at UMFR affect the local communities' traditional livelihood. Only 6.2% agreed with this statement. Overall, it can be concluded that most of the local communities did not face high conflict since most of them felt that the ecotourism activities in UMFR were executed with the consultation of the local

Table 9.6 Causes of conflict in community participation

Statements	Strongly disagree (%)	Disagree (%)	Neutral (%)	Agree (%)	Strongly agree (%)
Tourists do not respect local culture	65.6	31.3	–	–	–
Locals are not allowed to access wildlife	34.4	40.6	21.9	3.1	–
Locals are not allowed to use recreational facilities	43.8	65.6	–	–	3.1
Opinion of locals not taken in decision-making	28.1	65.6	3.1	–	3.1
No benefits for locals from ecotourism and conservation	56.3	40.6	–	–	3.1
Increased crime in communities through ecotourism	53.1	43.8	3.1	–	–
Inadequate communication between park management and residents	31.1	62.5	3.1	3.1	–
Limited employment opportunities to the local communities	46.9	50.0	–	–	3.1
Lack of benefit-sharing opportunities to local communities	46.9	50.0	–	3.1	–
Limited opportunity for local communities to participate in the management operations	25.0	71.9	–	–	3.1
Restriction in accessing land, territory or road access of the park	21.9	65.6	9.4	3.1	–
Execute the park functionalities without consulting local communities	31.3	65.6	–	–	3.1
Hidden interests of the tourism authority on tourism development	25.0	68.8	3.1	3.1	–
Affecting traditional livelihood of the local communities	46.9	46.9	–	3.1	3.1
Resource use conflicts	12.5	65.6	18.8	3.1	–
Provision of compensation to local communities for losses	12.5	43.8	40.6	3.1	–

communities, thus not affecting their traditional ways of living. However, it is noteworthy that a small fraction did face conflict in sharing usage of recreational facilities and opportunities to participate in decision-making.

(d) *Community Participation in Ecotourism*

Finally, community participation in the ecotourism sector was tested through eight statements, and the descriptive results are presented in Table 9.7.

A total of 96.9% agreed that UMFR management had involved local communities in ecotourism planning. In this study, 92.8% of the respondents agreed that the locals

Table 9.7 Community participation in ecotourism

Statements	Strongly disagree (%)	Disagree (%)	Neutral (%)	Agree (%)	Strongly agree (%)
I am aware of the ecotourism activities and projects that take place in UMFR	–	–	–	78.1	21.9
UMFR management has involved local communities in its ecotourism planning	–	3.1	–	78.1	18.8
I feel personally involved in the decision-making process of ecotourism development in UMFR	–	–	6.3	75.0	18.8
I report any unsustainable practices within UMFR to the relevant agencies	–	–	3.1	68.8	28.1
I am currently participating in the ecotourism activities or projects in UMFR	–	3.1	3.1	68.8	25.0
I am actively involved in the implementation of various activities and projects in UMFR	–	3.1	9.4	68.8	18.8
I am an advocate in promoting ecotourism and conservation of UMFR	–	–	3.1	56.3	40.6

Table 9.8 Correlation result among motivation, benefits, conflicts and community participation

	Benefits of ecotourism	Cause of conflict	Motivation	Participation
Benefits of ecotourism	1.000			
Cause of conflict	– 0.119	1.000		
Motivation	0.133	– 0.124	1.000	
Participation	0.068	– 0.716**	0.401*	1.000

*Correlation is significant at the 0.05 level (1-tailed)

**Correlation is significant at the 0.01 level (1-tailed)

were involved in the decision-making processes of the ecotourism development in UMFR. Also, 96.9% agreed that they would take the responsibility to report any unsustainable practices within UMFR to the relevant agencies. The majority of the respondents (93.8%) agreed that, currently, they have actively participated in the ecotourism activities or projects organized by UMFR. 96.9% were also actively advocating the importance of ecotourism and conserving natural resources. The roles of ecotourism activities in boosting the tourists' experiences, promoting the local culture, improve the socio-economic of the local community motivating the community participation in ecotourism (Anup et al., 2015; Bhuiyan et al., 2011). A study by Salman et al. (2020) indicated that the motivation and encouragement of tourism

stakeholders, especially from community leaders, led to high participation among residents in ecotourism activities.

9.5.3 Relationship Between Motivation, Benefits and Conflicts and Community Participation

The correlation analysis utilized in this study examines the relationship between motivation, benefits, conflicts and community participation in ecotourism activities. Table 9.8 shows the correlation coefficients of all the variables, and the outcome of the analysis indicated that only the cause of conflict and motivation were significant in influencing the local community's participation in ecotourism. The cause of conflict had the highest negative correlation coefficient (-0.716) towards community participation at a significance level of 0.00. Meanwhile, motivation showed a moderate correlation coefficient (0.401) with a significant level of 0.05. The results indicate that a lower conflict will enhance community participation. This supports the findings of Zacarias and Loyola (2017), who found that higher causes of conflict reduce the participation level among the community. Meanwhile, motivation had a positive and significant relationship with community participation. Hence, community participation will increase whenever there is a motivation to push or encourage the community. This was supported by the findings of Noorhayati et al. (2015), Mastura et al. (2020) and Sharpley (2014), which highlighted a significant relationship between motivation and community participation. However, the findings also illustrated a non-significant relationship between the benefits of ecotourism and community participation. The community does not seem to be influenced by the benefits that they will gain. Non-gaining or loss situation in the ecotourism sector does not seem to deter them from being involved in this sector. Contrary, it was against the findings of Wang et al. (2021) who indicated a positive and significant relationship between these variables.

9.6 Conclusion

This study aimed to understand the participation of the local community in ecotourism activities at UMFR by examining the influence of benefits of ecotourism, causes of conflicts and motivation. The absence of conflict would improve the local communities' participation. Hence, the local government plays a crucial role in ensuring that locals are given the opportunities and priority to participate at every level from planning to decision-making on the outcome of ecotourism benefits. This study found that the majority of the local communities were highly motivated to participate in ecotourism activities. They were driven by their intrinsic needs, such as feelings of enjoyment, knowledge-sharing and personal satisfaction. Hence, local government agencies in Kedah could motivate more locals to participate in ecotourism activities in UMFR by empowering them. For example, the Kinabatangan Tourism Cooperative (KOPEL) in Sabah, Malaysia, comprises 260 committee

members from the local residents. These committee members are actively involved in the planning and implementation of various ecotourism activities. The initiative trained more than 300 local communities in operating homestays and also as tourist guides. As a key primary stakeholder, local communities should be given control over their livelihood and the resources at UMFR. Since the locals are highly motivated, they can act as role models in a mentor-mentee programme for other local community members who wish to participate in the ecotourism sector. Besides, the local communities indeed concur that ecotourism activities have brought them various benefits by improving their skills, increasing their income and providing numerous infrastructure improvements in UMFR.

However, findings indicated that not all local communities received equal access to the wildlife resources and opportunities to sell their local products at UMFR. A non-significant relationship was also found between the benefits of ecotourism and community participation. For these reasons, local communities are not opportunistic in that they look beyond the advantages. Hence, ecotourism can be promoted to be a part of their lifestyle. Due to this, local government agencies need to have clear guidelines that spell out the local communities' rights towards these resources in terms of access, usage and outputs, for instance, having a handbook of best practices management on responsible usage of natural resources such as land, water and energy, including protection of biodiversity species in the ecosystem. UMFR is not only a crucial water catchment area for the Northern states in Malaysia, but the local community depends on the forest for food security and ecotourism activities. Thus, the state and the federal government should revoke logging permits, enforce land-use control against illegal outsiders and collaborate with the local community on reforestation efforts in the gazetted forest reserve area. Community participation in ecotourism activities also led to the success and sustainability of activities and the conservation process. They also provide opportunities in the planning and decision-making process (Engku Nor et al., 2018).

9.7 Limitations and Future Studies

Due to the pandemic situation in the country, this study faced the limitation in obtaining higher numbers of respondents as the ecotourism sector had slowed down. Some of the local communities involved in ecotourism in UMFR had to temporarily find alternative sources of their income. Hence, to increase the response rate and enrich the findings, this study can be replicated during the post-pandemic to attract more local communities who are involved in ecotourism to participate. Lastly, the findings of this study provided insights on the participation and involvement of communities, thus guiding for better management of ecotourism development in UMFR. The results acted as a basic functional guideline to authorities and organizations such as the Kedah State Government, Ministry of Tourism and Culture Malaysia and site operators or service providers of UMFR to implement relevant policies to improve local community participation in ecotourism sectors.

References

- Abukhalifeh, A. N., & Wondirad, A. (2019). Contributions of community-based tourism to the socio-economic well-being of local communities: The case of Pulau Redang Island, Malaysia. *International Journal of Tourism Sciences*, 19(2), 80–97. <https://doi.org/10.1080/15980634.2019.1621521>
- Acquah, E., Nsor, C. A., Arthur, E. K., Boadi, S., et al. (2017). The socio-cultural impact of ecotourism on park-adjacent communities in Ghana. *African Journal of Hospitality, Tourism and Leisure*, 6(2), 1–14.
- Adeleke, B. O., & Nzama, T. (2013). Assessment of community participation in ecotourism and conservation at Hhuhuwe-Umfoloji Park, South Africa. *Journal of Environment and Earth Science*, 3(3), 27.
- Agyeman, Y. B., Yeboah, A. O., & Ashie, E. (2019). Protected areas and poverty reduction: The role of ecotourism livelihood in local communities in Ghana. *Community Development*, 50(1), 73–91.
- Akyeampong, O. A. (2011). Pro-poor tourism: Residents' expectations, experiences and perceptions in the Kakum National Park Area of Ghana. *Journal of Sustainable Tourism*, 19(2), 197–213.
- Ali, M. B., Quaddus, M., Rabbane, F. K., & Shanka, T. (2022). Community participation and quality of life in nature-based tourism: Exploring the antecedents and moderators. *Journal of Hospitality & Tourism Research*, 46(3), 630–661.
- Anup, K. C., Rijal, K., & Sapkota, R. P. (2015). Role of ecotourism in environmental conservation and socioeconomic development in Annapurna conservation area, Nepal. *International Journal of Sustainable Development & World Ecology*, 22(3), 251–258.
- Arnstein, S. R. (1969). A ladder of citizen participation. *Journal of the American Institute of Planners*, 35(4), 216–224. <https://doi.org/10.1080/01944366908977225>
- Baksh, R., Soemarmo, H. L., & Nugroho, I. (2012). Community participation in the development of ecotourism: A case study in Tambaksari Village, East Java Indonesia. *Journal of Basic and Applied Scientific Research*, 2(12), 12432–12437.
- Bello, F. G., Carr, N., & Lovelock, B. (2016). Community participation framework for protected area-based tourism planning. *Tourism Planning & Development*. Abingdon: Routledge Taylor & Francis Group, 13(4), 469–485.
- Bhan, S., & Singh, L. (2014). Homestay tourism in India: Opportunities and challenges. *African Journal of Hospitality, Tourism and Leisure*, 3(2), 1–8.
- Bhuiyan, M. A. H., Siwar, C., Ismail, S. M., & Islam, R. (2011). The role of home stay for ecotourism development in East Coast Economic Region. *American Journal of Applied Sciences*, 8(6), 540–546.
- Bluwstein, J. (2017). Creating ecotourism territories: Environmentalities in Tanzania's community-based conservation. *Geoforum*, 83, 101–113.
- Campbell, L. M. (1999). Ecotourism in rural developing communities. *Annals of Tourism Research*, 26(3), 534–553.
- Cheung, L. T., & Fok, L. (2014). The motivations and environmental attitudes of nature-based visitors to protected areas in Hong Kong. *International Journal of Sustainable Development & World Ecology*, 21(1), 28–38.
- Chou, S. Y., & Chang, T. (2017). Being helped and being harmed: A theoretical study of employee self-concept and receipt of help. *Journal of Happiness Studies*, 18(6), 1573–1592.
- Dimitriou, C. K. (2017). From theory to practice of ecotourism: Major obstacles that stand in the way and best practices that lead to success. *European Journal of Tourism, Hospitality and Recreation*, 8(1), 26–37.
- Dyer, P., Gursoy, D., Sharma, B., & Carter, J. (2007). Structural modeling of resident perceptions of tourism and associated development on the Sunshine Coast, Australia. *Tourism Management*, 28(2), 409–422.

- Engku Nor, K. E. H., Shuib, A., Kunasekaran, P., Johari, S., & Adam, S. (2018). Local community participation in ecotourism development in Tasik Kenyir, Malaysia. *World Applied Sciences Journal*, 36(1), 85–92.
- Eshun, G., & Tichaawa, T. M. (2020). Community participation, risk management and ecotourism sustainability issues in Ghana. *Geo Journal of Tourism and Geosites*, 28(1), 313–331. <https://doi.org/10.30892/gtg.28125-472>
- Fadhil, M. H., Azizan, N. A., & Shaharudin, R. S. (2007). The interaction between macroeconomic variables and the performance of mutual fund in Malaysia. In C. Gan (Ed.), *MFA 9th Conference*, 12 and 13 June 2007.
- Fei-Hu, D., Yuan-Heng, G., & Qiao-Li, T. (2020). Effects of ecotourism travel motivation and social relations on mental state of the middle-aged and elderly group. *Revista de Cercetare si Interventie Sociala*, 70, 20–30. <https://doi.org/10.33788/rcis.70.2>
- Gal, T. (2017). An ecological model of child and youth participation. *Children and Youth Services Review*, 79, 57–64. <https://doi.org/10.1016/j.childyouth.2017.05.029>
- Harilal, V., & Tichaawa, T. (2018). Ecotourism and alternative livelihood strategies in Cameroon's protected areas. *EuroEconomica (Special Issue on Tourism in Africa)*, 1(37), 133–148.
- Hart, R. (1992). *Children's participation from tokenism to citizenship*. UNICEF Innocenti Research Centre.
- Hung, K., Sirakaya-Turk, E., & Ingram, L. J. (2011). Testing the efficacy of an integrative model for community participation. *Journal of Travel Research*, 50(3), 276–288.
- Idziak, W., Majewski, J., & Zmyslony, P. (2015). Community participation in sustainable rural tourism experience creation: A long term appraisal and lessons from a thematic villages project in Poland. *Journal of Sustainable Tourism*, 23, 1341–1362.
- Jahan, K. M., & Akhter, H. (2018). Impact of ecotourism on the environment, society and culture of Ratargul Swamp Forest in Sylhet, Bangladesh. *Asian Journal of Environment & Ecology*, 8(1), 1–8.
- Jamal, T. B., & Getz, D. (1995). Collaboration theory and community tourism planning. *Annals of Tourism Research*, 22(1), 186–204.
- Jepson, A., Clarke, C., Ragsdell, G., et al. (2014). Investigating the application of the motivation–opportunity–ability model to reveal factors which facilitate or inhibit inclusive engagement within local community festivals. *Scandinavian Journal of Hospitality and Tourism*, 14(3), 331–348. <https://doi.org/10.1080/15022250.2014.946230>
- Kala, D., & Bagri, S. C. (2018). Barriers to local community participation in tourism development: Evidence from mountainous State Uttarakhand, India. *Turizam: medunarodni znanstveno-stručni časopis*, 66(3), 318–333.
- Kantsperger, M., Thees, H., & Eckert, C. (2019). Local participation in tourism development—Roles of non-tourism related residents of the Alpine Destination Bad Reichenhall. *Sustainability*, 11(24), 6947. <https://doi.org/10.3390/su11246947>
- Kia, Z. (2021). Ecotourism in Indonesia: Local community involvement and the affecting factors. *Journal of Governance and Public Policy*, 8(2), 93–105.
- Kihima, B., & Musila, P. (2019). Extent of local community participation in tourism development in conservation areas: A case study of Mwaluganje conservancy. *Parks*, 25(25.2), 47–56. <https://doi.org/10.2305/IUCN.CH.2019.PARKS-25-2en>
- Kunjuraman, V., & Hussin, R. (2017). Challenges of community-based homestay programme in Sabah, Malaysia: Hopeful or hopeless? *Tourism Management Perspectives*, 21, 1–9.
- Lee, C. J., & Wu, C. S. (2021). Recreation management research on recreational motivation and experience. *American International Journal of Business Management*, 4(6), 22–29.
- Li, W. (2006). Community decision-making participation in development. *Tourism Management*, 33(1), 132–143.
- Liu, A. (2006). Tourism in rural areas: Kedah, Malaysia. *Tourism Management*, 27, 878–889.
- Liu, J., Qu, H., Huang, D., Chen, G., Yue, X., Zhao, X., & Liang, Z. (2014). The role of social capital in encouraging residents' pro-environmental behaviors in community-based ecotourism. *Tourism Management*, 41, 190–201.

- Ma, B., & Wen, Y. (2019). Community participation and preferences regarding conservation and development policies in China's giant panda nature reserves. *Sustainability*, 11(18), 1–17.
- Marston, C., Renedo, A., Miles, S., et al. (2020). Community participation is crucial in a pandemic. *The Lancet*, 395(10238), 1676–1678. [https://doi.org/10.1016/S0140-6736\(20\)31054-0](https://doi.org/10.1016/S0140-6736(20)31054-0)
- Mastura, J., Shuhaida, M. N., Diana, M., Alireza, J., & Hashim, J. (2020). Motivational factors impacting rural community participation in community-based tourism enterprise in Lenggong Valley, Malaysia. *Asia Pacific Journal of Tourism Research*, 25(7), 799–812.
- Meilani, M. M., Andayani, W., Faida, L. R. W., Maryudi, A., et al. (2019). Ecotourism in Sebangau National Park: An avenue to enhance local community livelihoods while protecting the ecosystem. *IOP Conference Series: Earth and Environmental Science*, 399(1), 012112. <https://doi.org/10.1088/1755-1315/399/1/012112>
- Mensah, I. (2017). Benefits and challenges of community-based ecotourism in park-fringe communities: The case of Mesomakor of Kakum National Park, Ghana. *Tourism Review International*, 21(1), 81–98.
- Moyle, B., Croy, G., & Weiler, B. (2010). Tourism interaction on islands: The community and visitor social exchange. *International Journal of Culture, Tourism and Hospitality Research*, 4(2), 96–107.
- Nault, S., & Stapleton, P. (2011). The community participation process in ecotourism development: A case study of the community of Sogoog, Bayan-Ulgii, Mongolia. *Journal of Sustainable Tourism*, 19(6), 695–712.
- Neger, C. (2021). Ecotourism in crisis: An analysis of the main obstacles for the sector's economic sustainability. *Journal of Ecotourism*, 2021, 1–23. <https://doi.org/10.1080/14724049.2021.1942019>
- Njoh, A. J. (2002). Barriers to community participation in development planning: Lessons from the Mutengene (Cameroon) self-help water project. *Community Development Journal*, 37(3), 233–248.
- Noorhayati, M. R., Hasmadi, I. M., Pakhriazad, H. Z., Khairil, A. W., et al. (2015). Identifying motivation factors of the participation of local community in tourism industry in National Park, Pahang, Malaysia. In *International Conference on Management and Technology in Knowledge, Service, Tourism & Hospitality*.
- Ölander, F., & Thøgersen, J. (1995). Understanding of consumer behavior as a prerequisite for environmental protection. *Journal of Consumer Policy*, 18(4), 345–385. <https://doi.org/10.1007/BF01024160>
- Pallant, J. (2013). *SPSS survival manual* (5th ed.). Open University Press.
- Pasape, L., Anderson, W., & Lindi, G. (2015). Assessment of indicators of sustainable ecotourism in Tanzania. *Anatolia*, 26(1), 73–84.
- Phelan, A., Ruhanen, L., & Mair, J. (2020). Ecosystem services approach for community-based ecotourism: Towards an equitable and sustainable blue economy. *Journal of Sustainable Tourism*, 28(10), 1665–1685. <https://doi.org/10.1080/09669582.2020.1747475>
- Poudel, B., & Joshi, R. (2020). Ecotourism in Annapurna conservation area: Potential, opportunities and challenges. *Grassroots Journal of Natural Resources*, 3(4), 49–73. <https://doi.org/10.33002/nr2581.6853.03044>
- Rahman, S., & Singh, H. R. (2019). The potential for marine ecotourism in Mukim Tanjung Kupang, Johor, Malaysia through capacity building of local communities via environmental education. *Samudera Journal of Maritime and Coastal Studies*, 1(1), 60–74.
- Rasoolimanesh, S. M., Ringle, C. M., Jaafar, M., & Ramayah, T. (2017). Urban vs. rural destinations: Residents' perceptions, community participation and support for tourism development. *Tourism Management*, 60, 147–158.
- Regmi, K. D., & Walter, P. (2017). Modernisation theory, ecotourism policy, and sustainable development for poor countries of the global South: Perspectives from Nepal. *International Journal of Sustainable Development and World Ecology*, 24(1), 1–14.
- Safitri, D., & Putra, Z. F. F. (2018). Ecotourism of social culture aspect in Indonesia. *Proceeding International Conference on University and Intellectual Culture*, 1(1), 60–71.

- Salman, A., Jaafar, M., Mohamad, D., & Malik, S. (2020). Ecotourism development in Penang Hill: A multi-stakeholder perspective towards achieving environmental sustainability. *Environmental Science and Pollution Research*, 28(31), 42945–42958.
- Sangpikul, A. (2017). Ecotourism impacts on the economy, society and environment of Thailand. *Journal of Reviews on Global Economics*, 6, 02–312.
- Saunders, M., Lewis, P., & Thornhill, A. (2012). *Research methods for business students*. Pearson Education Ltd..
- Schunk, D. H., & DiBenedetto, M. K. (2020). Motivation and social cognitive theory. *Contemporary Educational Psychology*, 60, 101832. <https://doi.org/10.1016/j.cedpsych.2019.101832>
- Sebele, L. S. (2010). Community-based tourism ventures, benefits and challenges: Khama Rhino Sanctuary Trust, Central District, Botswana. *Tourism Management*, 31, 136–146.
- Selby, S. T., Cruz, A. R., Ardoin, N. M., et al. (2020). Community-as-pedagogy: Environmental leadership for youth in rural Costa Rica. *Environmental Education Research*, 26(11), 1594–1620. <https://doi.org/10.1080/13504622.2020.1792415>
- Sharpley, R. (2014). Host perceptions of tourism: A review of the research. *Tourism Management*, 42, 37–49.
- Shier, H. (2001). Pathways to participation: Openings, opportunities and obligations. *Children & Society*, 15(2), 107–117. <https://doi.org/10.1002/chi.617>
- Shim, W. S., & Lee, Y. T. (2003). Residents' perceptions of government involvement impact and their attitudes towards government driven tourism development. *International Journal of Tourism Sciences*, 3(2), 133–150.
- Simmons, D. G. (1994). Community participation in tourism planning. *Tourism Management*, 15, 98–108.
- Sithole, N., Giampiccoli, A., & Jugmohan, S. (2021). Towards a spontaneous community participation model in community-based tourism. *African Journal of Hospitality, Tourism and Leisure*, 10(1), 222–237. <https://doi.org/10.46222/ajhtl.19770720-97>
- Sosa, M. C., & Brenner, L. (2021). Factors of community participation that explain the benefits of ecotourism. *Revista de Turismo y Patrimonio Cultural*, 19(3), 453–476. <https://doi.org/10.25145/j.pasos.2021.19.030>
- Stylidis, D., & Terzidou, M. (2014). Tourism and the economic crisis in Kavala, Greece. *Annals of Tourism Research*, 44, 210–226.
- Swaine, M. D. (1989). Population dynamics of tree species in tropical forests. In *Tropical forest: Botanical dynamics, speciation, and diversity* (pp. 101–110).
- Tan, H. T., Lim, E., & Mamat, M. P. (2020). Local community participation in ecotourism at National Park in Pahang, Malaysia. *The Malaysian Forester*, 83(2), 340–352.
- Taylor, G. (1995). The community approach: Does it really work? *Tourism Management*, 16(7), 487–489.
- Tosun, C. (1999). Towards a typology of community participation in the tourism development process. *Anatolia*, 10(2), 113–134. <https://doi.org/10.1080/13032917.1999.9686975>
- Tosun, C. (2000). Limits to community participation in the tourism development process in developing countries. *Tourism Management*, 21(6), 613–633. [https://doi.org/10.1016/S0261-5177\(00\)00009-1](https://doi.org/10.1016/S0261-5177(00)00009-1)
- Tosun, C. (2006). Expected nature of community participation in tourism development. *Tourism Management*, 27, 493–504.
- Wang, M., Jiang, J., Xu, S., Guo, Y., et al. (2021). Community participation and residents' support for tourism development in ancient villages: The mediating role of perceptions of conflicts in the tourism community. *Sustainability*, 13(5), 2455. <https://doi.org/10.3390/su13052455>
- Wilcox, D. (1994). *The guide to effective participation*. Partnership Books.
- Wondirad, A. (2017). Who benefits from the ecotourism sector in Southern Ethiopia? *International Journal of Tourism Sciences*, 17(4), 276–297. <https://doi.org/10.1080/15980634.2017.1384133>
- Zacarias, D., & Loyola, R. (2017). *How ecotourism affects human communities*. In *Ecotourism's promise and peril* (pp. 133–151). Springer. https://doi.org/10.1007/978-3-319-58331-0_9

Zhang, Y., Xiao, X., Cao, R., et al. (2020). How important is community participation to eco-environmental conservation in protected areas? From the perspective of predicting locals' pro-environmental behaviours. *Science of the Total Environment*, 739, 139889. <https://doi.org/10.1016/j.scitotenv.2020.139889>