

Prospects and Challenges of Ecotourism Sector and Poverty Eradication in Sabah: The Case of Orangutans and Mabul Island

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ABSTRACT

Ecotourism is a nature-based tourism in Malaysia with a high growth potential. In terms of biodiversity, Malaysia is ranked 12th in the world. Hence, Malaysia has attracted tourists across the world, especially to Sabah. The orangutans, the beach and the underwater beauty of Mabul Island have the potential of turning Semporna and Sandakan in Sabah to become ecotourism centres in Malaysia. However, Sabah has remained as the poorest state in Malaysia. Using secondary data, this study examines the challenges faced by the locals in their efforts to improve their lives through their ecotourism sector. The locals faces challenges such as domination of business by outsiders and their lack of skills, capital and interest in entrepreneurship. Hence this study will suggest some solutions on how to overcome these challenges facing the locals in the two study areas.

Keywords: Ecotourism, Mabul island, Orangutan, Poverty, Sabah.

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1. INTRODUCTION

The Malaysian state of Sabah has various natural assets that can be potentially developed into main ecotourism centres in Malaysia. Sabah carries the nickname of Land Below the Wind and is the second largest state in Malaysia having an area covering 72,500 square kilometres. Malaysia has a tropical climate and Sabah is granted with tropical rainforests estimated at 130 million years old (Sabah State Government, 2015). With its tourism theme Sabah – Borneo Paradise, Sabah has changed into an ecotourism destination, capable of competing at the national and international level (Habibah, 2000).

This paper aims to suggest ways of increasing incomes of the local people through ecotourism, by highlighting two potential ecotourism areas in Sabah as tourist attractions. First is the Mabul Island in Semporna, which is one of the best maritime-based ecotourism destination (Ismail, 2012) and the greatest macrophotographic location in the world, especially for scuba diving activities (Jabil, 2010). Second is the Sepilok Orangutan Rehabilitation Centre in Sandakan, which has been operating for 52 years since 1964. This centre rehabilitates orangutans, a species that can only be found in the rainforest areas of Borneo and Sumatra. In Malaysia, orangutans live only in the rainforest areas of Sabah and Sarawak. This has attracted tourists to Sabah because orangutans can be found only in certain regions of the world.

Thus, Sabah state government has focused on generating its economy through the tourism sector as it has the potential of bringing in high economic returns to the Sabah state. In Malaysia, the tourism industry is the sixth largest contributor to the national economy, with a contribution of RM65.4 million in 2013 (Performance Management and Delivery Unit, 2013). Thus, this industry can play an important role to improve the income of the local population, if they can be encouraged to participate in the development of the tourism sector.

The discussion in this paper will be divided into three sections. The first section discusses on the focused areas of tourism, namely Mabul Island, Semporna and Sepilok Orangutan Rehabilitation Centre in Sandakan. The second section presents the potentials of ecotourism that can be developed from the two selected areas to increase the income of the local residents. Finally, the last section will provide the suggestions and conclusions derived from the analysis of the two earlier sections.

2. PROBLEM STATEMENTS

2.1. Ecotourism and Poverty Eradication

At the First World Conservation Congress in 1966, ecotourism has been officially defined by Hector Ceballos-Lascurain. Ceballos-Lascurain defined ecotourism as a tourism activity involving the preservation and conservation of nature, and providing infrastructures and facilities in tourist attraction areas. However, these activities are not only restricted to natural environment, but also include artificial ecological environment. These activities contribute to economic activities and they involve participation of the local community (Page and Dowling, 2002). In 2015, The International Ecotourism Society defined ecotourism as tourism with responsibilities to the natural areas, the preservation of the environment, enhancement of the local resident's prosperity and involves interpretation and education to enrich personal experience and awareness (The International Ecotourism Society, 2015).

Local scholars have some similarities with regard to the definition ecotourism, which include preserving nature, not overly exploiting natural resources and providing positive impacts on the local people and the national economy (Ahmad and Tom, 2005; Zuriatunfadzliyah *et al.*, 2009; Jayaraman *et al.*, 2010).

Canadian Environmental Advisory Council (1991) found several main characteristics of ecotourism activities. They include the following features.

- a) They are related to potential areas of attraction such as wildlife area, beautiful scenery and heritage.

- b) They minimise impact and damage to the local environment and community.
- c) They educate the public to better understand and appreciate nature.
- d) They need to practice proper etiquette in managing environmental
- e) They should focus on intrinsic values of the extrinsic.
- f) They have to maintain the authenticity of nature
- g) They practice the ecocentric rather than anthropocentric in orientation
- h) They provide an interesting experience in terms of cognitive and affective.

However, [Eagels \(1966\)](#) have formulated seven ecotourism principles, which should serve as a guide. These principles are as follows.

- a) Ecotourism must be related to the preservation of nature and must be able to boost the local economy.
- b) Operators of ecotourism should employ and maintain highly skilled workforce.
- c) In developing ecotourism, the culture and the sensitivity of the local population should be taken into account.
- d) The implementation of ecotourism should benefit the local population in terms of their social, economic and ecological system.
- e) Ecotourism must be implemented with good management planning.
- f) In ecotourism, information and services distributed must be of high quality.
- g) The developing ecotourism, strong management structure is required to maintain the protection of nature and to prevent rampant exploration of the natural environment.

From the the definition, objectives, characteristics and principles that have just been discussed, three important elements of ecotourism can be formulated. Ecotourism must be characterized by nature, sustainability and it must offer economic value. Therefore, in the development of the Mabul Island and the Orangutan Rehabilitation Centre in Sabah, these elements must be given serious consideration. The development of ecotourism in these areas should provide economic value to the local people if it were to target on reducing poverty. This is in line with the statement made in [World Tourism Organization \(2015\)](#) that ecotourism has a great potential to help overcome global poverty, especially in developing and less developed countries. In Vietnam, tourism contributed 6.7% to its gross national income, while in Cambodia ecotourism contributed 9.2% to help its economic recovery in 1999. Meanwhile, in Thailand ecotourism remained the largest source of foreign exchange since 1982 ([WTO, 2015](#)). Although ecotourism has a great potential, its importance in offering economic value to the local population has yet to be made clear to the public. Research conducted in Indonesia by [Dohar and Isti \(2012\)](#) showed that ecotourism must provide education about entrepreneurship to enhance social improvement. Another study by [Rosniza et al. \(2012\)](#) examined ecotourism development at Fraser's Hill, Malaysia. The study stressed on assets ownership such as housing for local people that needs to be developed hand in hand with the advancement of ecotourism in that area.

Besides that, many studies have been conducted about potential areas for ecotourism development. Among ecotourism areas that have studied are Fraser's Hill ([Rosniza et al., 2012](#)) on culture changes of Orang Bateq in the national park ([Zuriatunfadzliah et al., 2009](#)) mangrove park in Seri Manjung ([Nurain and Er, 2013](#)) Lata Jarum ([Er and Nurul, 2013](#)) district of Ulu Dong ([Er et al., 2012](#)) hot spring in Leisure Park (TRAP), Klah River in Perak, [Rosniza et al. \(2012\)](#) Cameron Highlands ([Lee, 2007](#)) and many others. Meanwhile in Sabah, almost all tourism areas are based on ecotourism. Areas that have been identified as main ecotourism centres are Kota Kinabalu, Kundasang, Ranau, East Coast areas of Sabah (including Semporna district), West Coast areas of Sabah (including

Sandakan district) and Sabah rural areas (Tony, 1990). A good source of reference about ecotourism in Sabah can be found in Habibah (2000).

2.2. Ecotourism Attraction in Mabul Island, Semporna

According to Sabah Mapping Department, Sabah is one of the states in the island of Borneo, which has 497 clusters of islands (Sabah Economic Development and Investment Authority (SEDIA), 2010). Hence, several islands in Sabah have great potentials to be developed as places of tourist attraction. They can attract visitors because of their beautiful seashores, which are facing three important oceans of South China Sea, Sulu Sea and Sulawesi Sea (Asmad, 1987). The development of tourism sector, especially in Sipadan Island, Semporna has also made the surrounding islands as tourism destinations. Apart from Semporna, which is located in Sipadan Island, Kapalai Island, Matakang Island, Sibuan Island and Mabul Island are all main tourism islands, among several more small islands in the same area (Semporna District Office, 2015).

2.3. History of the Mabul Island

Before independence, Sabah was ruled by the Sultan of Sulu. However, on 22 January 1878, Sabah was taken over by the British through the agreement between Sultan of Sulu and Alfred Dent and Overbeck. After Sabah achieved its independence in 1963, the Bajau people moved from mainland Sabah to inhabit the several nearby islands. This was followed by the Suluk and the Bajau Laut (Sea Gypsies) ethnics who originated from the Philippines in 1970. They originated from various small islands in southern Philippines and immigrated to Malaysia because of the conflict occurring in the area at that time (Ismail, 2012). Mabul Island has an area of approximately 20 hectares located at Southeast Sabah. The island is located between the mainland of Semporna and Sipadan Island. In the 1970s, this island was only an area planted with palm trees belonging to the landlords of Mabul Island. At that time, the landlords did not realise the potential of the island as a tourist attraction, especially for diving activities because the surrounding seas have depths of different levels (Jabil and Abdul, 2010).

2.4. Socioeconomic in Mabul Island

Presently, Mabul Island has a population of approximately 2,034 people. However, this figure is always changing because some members of the population commute to the Philippines or move to the other places around Sabah (Jabil and Abdul, 2010). The Bajau, also known as Sama-Bajau is the main tribe living in Mabul Island (Gusni, 2003). Additionally, the Suluk and the Bajau Laut tribes also settled on the island. The two tribes shared the same language and culture with the Bajaus because both of them belong to the Malay race with similar characteristics as Malay culture. These races are found in three main countries in Southeast Asia, namely Malaysia, Indonesia and the Philippines (Gusni, 2003).

The Suluks and the Bajaus live on land and perform their economic activities as the other local citizens. The majority of the population are fishermen, manufacturers of boat and fishing equipment and agar farmers (Jabil and Abdul, 2010). However, after the transformation of tourism into the economic activity in the island, the residents began to engage themselves in tourism activities (Jabil *et al.*, 2015)

Meanwhile, the Bajaus are better known as sea-nomads. This nomadic boat people is one of the ethnics among the Bajau tribes which are nomadic. Uniquely, Sabah is the only state in Malaysia that has the Bajau Laut ethnic, especially in Semporna district and in Mabul Island (Ismail and Kasim, 2012). Their population consists of only about 1000 to 2000 people. Most of them are irreligion and their life depends entirely from sea catches. They are mainly fishermen (Ismail and Kasim, 2012). They are not engaged with tourism activities in Mabul Island. They sell

their catches from sea in Semporna markets. Bajau Laut people have no citizenship; they are nomadic and often move between Malaysian and Philippines waters.

2.5. Ecotourism in Mabul Island

The natural beauty of the Mabul Island and the role of government are the main factors causing the active development of the tourism industry in Sabah, which made Mabul Island to become a popular tourism centre. Tourism sector in Malaysia have shown a positive growth after being recorded as the sixth largest contributor to the Malaysian economy in 2014 (PMDU, 2014). The rapidly growth of tourism industry makes islands more popular as tourism destinations to be visited by foreign and domestic tourists alike. Likewise, the Mabul Island of Semporna has suddenly become an attractive tourism area in Sabah. Tourism sector in Mabul Island began to grow following the growth of tourism industry, particularly in Sipadan Island. Number of resorts and homestays along the sea of Mabul Island has been actively increasing because under the Sabah Parks regulation, no resort are allowed to be built in Sipadan Island as of 2004 (Kamaruzaman and Ismail, 2012). The limited number of resorts and homestays in Sipadan Island will cause tourists to spend their nights in Mabul Island, hence enhancing the development of ecotourism there. Therefore, the potential for ecotourism in Mabul Island is great and this can help boost the economy of the local community.

Mabul Island has been selected in this study because according to Ismail (2012) it has the best maritime-based ecotourism destination in the world. In addition, according to Jabil (2010) it is a tourist attraction for scuba diving activity. Although it is not so well known as Sipadan Island, Mabul Island has become attractive to tourists all over the world because of the natural beauty of its shallow corals, fine sand and lovely seaweeds, and its marine species are rarely found in the other waters in the world (Ismail, 2012). This has caused the pattern of tourism in Mabul Island to become internationalised. Foreign tourist from countries such as United Kingdom, European Union, West Asia, Japan, Korea, China and others visited Mabul Island more than other places of tourism in Sabah (Kamaruzaman and Ismail, 2012).

2.6. Ecotourism Attraction at Sepilok Orangutan Rehabilitation Centre, Sandakan

Sabah is located in the island of Borneo, the third largest island in the world (Ministry of Sabah State, 2015). Borneo is shared by the state of Sarawak, the state of Brunei Darussalam, and Kalimantan Province of Indonesia. This island comprises 220,000 square km of tropical rainforest, a haven and sanctuary for orangutans. On 12 February 2007, Malaysia, Brunei and Indonesia have together signed an agreement with regard to the Heart of Borneo declaration, which intended to manage and to conserve this second world's largest forest landscape, beyond the boundary of their states. The declaration aimed to preserve Borneo's natural heritage and its endangered species, which include orangutans, elephants, rhinos, bay cats and banteng (SEDIA, 2010). The area covered under the Heart of Borneo is shown in Figure 1.



Figure-1. Boundary line of Heart of Borneo. Adapted from SEDIA (2010)
 Source: http://www.sedia.com.my/SDC_Blueprint/Blueprint_BM/BAB6.pdf

The boundary line also involves the area for the habitat of orangutans of various species such as Pongo Pygmeus Pygmeus (north of the Kapuas River, Pongo Pygmeus Wurbii (south of the Kapuas river and Central Kalimantan dan Pongo Pygmeus Morio East Kalimantan and Sabah) (Groves, 2001).

These species are found in Sabah, Sarawak, Brunei and Kalimantan, Indonesia. In Sabah, Pongo Pygmeus is the majority species living in protected areas free from human exploitation (Payne, 1988). For more detailed information see Ancrenaz *et al.* (2004).



Figure-2. Area of orangutan species. Adapted from The Houston Zoo (2009).
 Source: <http://www.houstonzoo.org/blog/orangutans-face-habitat-loss/>.

2.7. Background of Sepilok Orangutan Rehabilitation Centre, Sandakan

The objective of this orangutan rehabilitation centre is to act as a sanctuary for orphaned, wounded or abandoned orangutans so they can regain their strength and return to the forest and be self-reliant again. Young orangutans are trained with nursery skills such as finding food, building nests and climbing. After that, they will move to the Outdoor Nursery where their freedom is increased, but they remain under the observation of the sanctuary staff. Finally, the orangutans will be released to the Kabili-Sepilok forest reserve, an area of 4,294 hectares consisting of tropical virgin and mangrove forests. The orangutans will then live independently with other wild orangutans in the forest ([Sabah Wildlife Department, 2016](#)).

The Sepilok Rehabilitation Centre is opened for the public as an ecotourism centre for educating people to better know the orangutans and for promoting awareness about the importance of protecting the orangutans from extinction. Visitors to Sepilok will be shown about the life of the orangutans through DVDs. Visitors will also be given the chance to feed the orangutans with the help of the staff there.

Additionally, visitors will be given the chance to enjoy walking activity around the Sepilok forest reserve, crossing from the highland tropical forest area to the lowland mangrove forests. This activity allows visitors to experience a close up view of the wildlife where the orangutans and other species live ([SWD, 2016](#)).

The orangutans have been identified as an endangered species. Therefore, the establishment of this centre is important. The threat to orangutan population has been exacerbated by logging activities and forest burning to clear the land for the palm oil industry ([United Nations Environment Programme, 2007](#)). As it stands, Malaysia and Indonesia supply approximately 90% to the world palm oil market. This process of deforestation has obliterated the orangutan's habitat. Land clearing for agriculture and forest clearing has created a conflict between humans and the orangutans. Deforestation causes the orangutans to flee to nearby villages to look for food because of hunger and often they end up dead. The orangutans obtain food with high medical values from the forest ([Orangutan Appeal United Kingdom, 2015](#)). Hence, the establishment of this conservation centre not only serves as an ecotourism attraction, but also functions to save the orangutans from the threat of extinction.

3. RESEARCH METHOD

This study uses data from secondary sources available in the library. The prime sources of data are published materials such as theses, abstracts, journals and papers, books, and online materials. Data were also obtained from various websites such as the United Nations Environment Programme, the World Tourism Organization, Orangutan Appeal United Kingdom and the International Ecotourism Society. Data were analysed using content analysis. Mabul Island and the Orangutan Rehabilitation Centre have been chosen as study areas because both are ecotourism areas having their own attractions and potentials for generating economic growth for the Sabah state and the local citizens. Evidence has shown that the development of ecotourism in Mabul Island has transformed the economic activities of the local residents and endorsed by results of the studies by [Jabil \(2010\)](#) and [Jabil et al. \(2012\)](#).

4. RESULTS AND DISCUSSION

The poverty rate of Sabah stood at 8.1% in 2012 and in 2014 the rate was reduced to 4.0% ([Jabatan Perangkaan Malaysia \(DOSM\) and Unit Perancang Ekonomi \(EPU\), n.d](#)). Despite the decline in the poverty rate, the population of Sabah still remains the poorest in Malaysia. According to the Sabah Economic Development Unit, Semporna stands as the third poorest district in the state recording 38.1% of poor population ([SEDIA, 2010](#)). Mabul Island, one of the areas of focus in this study is located in the district of Semporna.

Recognising the poverty scenario in the country, the government has formulated a development plan covering a time frame of fifty years development of Malaysia by focusing on poverty eradication as the primary agenda. The national development plan began with the New Economic Policy (1971-1990) to the most recent National Transformation Policy (2010-2020) (Norzita and Siti, 2015).

The development strategy planned by the Sabah state government focuses on tourism as a key sector to generate revenue for the state. The development of tourism in Sabah is showing encouraging growth. In 2014, Sabah recorded the highest number of tourist arrivals totalling to 3.38 million arrivals (Nurulaida Fazlin Lamit, 2014). The number of tourist arrivals to Sabah has shown a positive growth year by year. From 1.6 million people in 2010, the number increased to 1.9 million in 2011, and to 2.84 million in 2012, bringing in a total revenue of RM5.4 billion (Suraidah Roslan, 2013). This shows that ecotourism in Mabul Island and Sepilok Orangutan Rehabilitation Centre has the potential to generate income for the local communities through tourism activities.

According to the study by Jabil and Abdul (2010) the involvement of local residents in tourism industry of the island was only about 12.5%. The study showed that the local residents were only involved as general employees, security personnel and transportation workers. However, five years after that transformation of the tourism industry occurred and locals began to become homestay operators, they worked as resort employees, they became souvenir dealers, they worked as security officers, they operated transportation business, they became tour guides, they operated boat transportation business and they became dive master man for scuba diving activities. Women and young people also tended to work in resorts or guesthouses as guardian of cleanliness and cheerfulness of the island (Jabil *et al.*, 2015). The study also found that 80% of the residents agreed that their income has increased through their participation in the tourism activities. Therefore, ecotourism has contributed to improving the economy and generating income for the locals.

However, now the local people have identified the obstacles that are hindering their efforts to increase their income. For example, in Mabul Island people have realized that the beneficiaries in tourism industry in the island are outsiders, especially Chinese entrepreneurs and local politicians. Widespread sales of land to outsiders for opening resorts have clearly marginalized the locals and made them uncompetitive (Jabil *et al.*, 2015) Their lack of skills in tourism business, their weak understanding of foreign languages such as English, their lack of capital and access to local leaders are all barriers that made them unable to compete with outsiders in the ecotourism business. Meanwhile, outsiders in the ecotourism business can afford to offer luxury tour packages to tourists, hire foreign workers, and paying them lower wages compared with employing locals (Daldeniz and Hampton, 2013). In addition to these challenges, Jabil and Abdul (2010) also listed attitudes of the locals such as laziness, having no competitive spirit and having no interest in entrepreneurship as some of the other factors hindering efforts to increase the income of the local residents.

Similar problems have been identified at the Sepilok Orangutan Rehabilitation Centre. Awang (2012) in their study showed that the involvement of the locals in the ecotourism business is minimal. Nonlocals working at the centre outnumbered the locals. Additionally, residents from the surrounding areas are less exposed to ecotourism activities and thus their participation in exploiting ecotourism resources around their area becomes minimal.

4.1. Measures to Enhance Local Involvement in Economic Generation

4.1.1. Improve the Quality of the Population Through Education and Skills

The locals, particularly those involved in ecotourism should be given the opportunities to generate income. This effort should begin by providing them education and skills to enable them to participate in ecotourism business. They should be trained in the skills for operating the ecotourism business in their areas as well as skills in

business management, hospitality, entrepreneurship, foreign language, financial management, and other business related skills.

4.1.2. Joint Venture Projects between Agencies and Locals

Government agencies directly involved in ecotourism such as the Ministry of Tourism, Culture and Environment, Sabah and the Sabah Tourism Board should provide opportunities for local residents to participate in joint venture tourism projects in the ecotourism areas in Sabah. In 2013, Mabul Island introduced Greenback turtle and Hawksbill turtle as new tourism icons to add to the attractions of the island and now both species of the turtles are landing on the beach of the island. In addition, the Ministry has proposed various activities to attract foreign tourists to the island. These activities include organising World Turtle Day every year and conducting activities relating to the turtles such as conducting a census of the turtle population in the Mabul Island water. This programme can include catching, photographing, measuring and installing tags on the turtles before releasing them back into the sea (Bernama, 2013). Such projects would be very beneficial to the locals if they can be encouraged to participate directly to help the ministry to promote the turtles in Mabul Island. This is in line with the national mission to create a sustainable tourism sector that can generate high returns, providing income and employment to the people. The estimated revenues from such activities in the tourism sector can reach RM168 billion and creating 497,200 jobs for the locals by 2020 (PMDU, 2010).

4.1.3. Encourage and Promote Ecotourism Area Involved

These two areas selected for ecotourism should be organised commercially and continuously as they have significant potentials in generating the growth of the Sabah state economy. Ecotourism in Mabul Island should be promoted at a par with that of the Sipadan Island. Similarly, the potentials of the Sepilok orangutan sanctuary should be promoted to attract tourists to see and capture the uniqueness of the orangutans, which can be found only in specific areas in the world. The government should increase its spending in promoting the orangutans in Sabah rather than spending money for renting pandas from China for tourism purposes. For example, the government has spent RM11.6 million for the three pandas and has to pay RM2.5 million as conservation fees to China (Hairulazim, 2015). After all, Malaysia itself has a valuable wildlife treasure such as the orangutans that deserve to be promoted widely.

5. CONCLUSION

The entire document should be in times New Roman font size 10. Paper title must be centered, bold, regular font size 20 and all with upper case. Author names must be centered, bold, regular font size 10. Author affiliation must be regular font size 9. Email address must be centered, italic, font size 9. Recommended font sizes are shown in Table 1. No more than 3 levels of headings should be used. Level 1 heading must be left-justified, bold, regular font size 14 and numbered using Arabic numerals. Level 2 headings must be left-justified, bold, regular font size 12 and numbered as sub-heading (i.e 1.1). Level 3 heading must be left-justified, bold, italic font size 10 and numbered as sub-sub heading (i.e 1.1.1) and the first letter of each word capitalized.

REFERENCES

Ahmad, P.M.S. and B. Tom, 2005. Mass-ecotourism: An alternative to sustainable tourism development in developing countries. *Journal of Social Science and Humanities*, 2(1): 81-91. [View at Google Scholar](#)

- Ancrenaz, M., R. Calaque and I. Lackman-Ancrenaz, 2004. Orangutan nesting behavior in disturbed forest of Sabah, Malaysia: Implications for nest census. *International Journal of Primatology*, 25(5): 983-1000. [View at Google Scholar](#) | [View at Publisher](#)
- Asmad, 1987. Sabah. Melaka, Malaysia: Associated Educational Distributors (M) Sdn Bhd.
- Awang, I.H.A.K., 2012. Pengurusan Tarikan Pelancongan. Sabah: Universiti Malaysia Sabah.
- Bernamea, 2013. Penyus Ikon pelancongan baru Pulau Mabul di Sabah. Retrieved from <http://www.mstar.com.my/lain-lain/rencana/2013/06/21/penyus-ikon-pelancongan-baru-pulau-mabul-disabah/>.
- Canadian Environmental Advisory Council, 1991. A protected areas vision for Canada. Ottawa: Ministry of Supplies and Services.
- Daldeniz, B. and M.P. Hampton, 2013. Dive tourism and local communities: Active participation or subject to impacts? Case studies from Malaysia. *International Journal of Tourism Research*, 15(5): 507-520. [View at Google Scholar](#) | [View at Publisher](#)
- Dohar, B.S.M. and R.M. Isti, 2012. Social entrepreneurship to develop ecotourism. *Procedia Economics and Finance*, 4: 398-405. [View at Google Scholar](#) | [View at Publisher](#)
- Eagels, P.F.J., 1966. Fragile landscape: Seeking eco benefic. *Ecodecision*, 20: 17-20.
- Er, A.C. and B.M.L. Nurul, 2013. Tahap Kefahaman Ekopelancongan dalam Kalangan Komuniti Lokal di Lata Jarum, Raub, Pahang. *Journal of Society and Space*, 9(2): 27-34. [View at Google Scholar](#)
- Er, A.C., A.C.R. Rosniza, L. Novel, A.A. Mohd and Adam, 2012. Ekopelancongan dan analisis sosioekonomi Komuniti Ulu Dong. *Journal of Society and Space*, 8(9): 46-52. [View at Google Scholar](#)
- Groves, C.P., 2001. Primate taxonomy. Washington and London: The Smithsonian Institute Press. pp: 298-300.
- Gusni, S., 2003. The identity and social mobility of Sama-Bajau. *SARI: Jurnal Alam dan Tamadun Melayu*, 21: 3-113.
- Habibah, A., 2000. Ekopelancongan dan Persekitaran di Sabah. In Sabah dalam Perluasan Pasaran edited by Abdul Halim Ali, Ishak Shari, Habibah Ahmad, and Er A. C., Bangi, Selangor: UKM Press. pp: 129-148
- Hairulazim, M., 2015. Kos Perbelanjaan Tiga Panda RM11.6j. *Harian Metro*. Retrieved from <http://www.hmetro.com.my/node/95721#sthash.3Coorb2z.dpuf->.
- Ismail, A., 2012. Sepintas Lalu Pulau Mabul. In Pulau Mabul: Dulu, Kini dan Masa Depan edited by Ismail Ali and Yustren Karulus. Sabah: UMS Press. pp: 1-9.
- Ismail, A. and M.M. Kasim, 2012. Komuniti Bajau Laut. In Pulau Mabul: Dulu, Kini dan Masa Depan Ismail edited by Ismail Ali and Yustren Karulus. Sabah: UMS Press. pp: 15-20
- Jabatan Perangkaan Malaysia (DOSM) and Unit Perancang Ekonomi (EPU), n.d. Kadar kemiskinan dan kemiskinan tegar mengikut negeri dan strata, 2012 dan 2014. Jabatan Perdana Menteri: Putrajaya.
- Jabil, M., 2010. Pelancongan Berasaskan Selam Skuba di Pulau Mabul, Sabah. *Proceedings of Persidangan Kebangsaan Ekonomi Malaysia ke V (Perkem V), Inovasi dan Pertumbuhan Ekonomi*, Port Dickson, Negeri Sembilan, 15 – 17 Oktober 2010.
- Jabil, M. and K.D. Abdul, 2010. Komuniti nelayan dalam pembangunan pelancongan di Pulau Mabul. Retrieved from <http://repo.uum.edu.my/59/>.
- Jabil, M., P.Y. Mohamad, M.Z. Rosmiza and M. Mazdi, 2015. Transformation of scuba diving tourism development in mabul island, sabah. *Journal of Borneo Social Transformation Studies* 1(1): 32-51.
- Jabil, M., P.Y. Mohamad, R.M. Zainol. and M. Mazdi, 2012. Transformasi Pembangunan Pelancongan Selam Skuba di Pulau Mabul, Sabah. *Journal of Borneo Social Transformation Studies*, 1(1): 311-320. [View at Google Scholar](#)
- Jayaraman, K., K.L. Soh, L.Y. Li and L.O. Wooi, 2010. Sustainable ecotourism: The case of East Malaysia. *Journal of Hospitality and Tourism*, 7(1): 27-44. [View at Google Scholar](#)
- Kamaruzaman, A. and A. Ismail, 2012. Isu, Cabaran dan Masa Depan. In Pulau Mabul: Dulu, Kini dan Masa Depan edited by Ismail Ali and Yustren Karulus. Sabah: UMS Press. pp: 75-84

- Lee, B.H., 2007. Pembangunan Ekopelancongan di Cameron Highlands: Satu Kajian Kes. Master's Thesis, Universiti Sains Malaysia, Pulau Pinang, Malaysia.
- Ministry of Sabah State, 2015. Mengenai Sabah. Retrieved from <http://www.sabah.gov.my/cms/?q=ms/content/mengenai-sabah>.
- Norzita, J. and K.C.M. Siti, 2015. Keperluan Pengukuran Kemiskinan Berdasarkan Dimensi Bukan Pendapatan. In Kemiskinan: Isu Pendapatan Dan Program Pembasmian edited by Siti Khadijah Che Mat. Sintok, Kedah: UUM Press.
- Nurain, S. and A.C. Er, 2013. Ekopelancongan di Taman Paya Bakau, Seri Manjung, Perak: Persepsi Penduduk Terhadap Impak Pembangunan. *Journal of Society and Space*, 9(3): 69-79. *View at Google Scholar*
- Nurulaida Fazlin Lamit, 2014. Sabah Catat Kehadiran Pelancong Tertinggi. *The Borneo Post*.
- Orangutan Appeal United Kingdom, 2015. Orangutan information. Retrieved from <https://www.orangutan-appeal.org.uk/about-us/sepilok-rehabilitation-centre>.
- Page, S.J. and R.K. Dowling, 2002. *Ecotourism*. London: Prentice Hall.
- Payne, J., 1988. *Orangutan conservation in sabah*. World wildlife fund (Malaysia): Kuala Lumpur, Malaysia.
- Performance Management and Delivery Unit, 2013. Economic transformation programme (tourism). Retrieved from <http://etp.pemandu.gov.my/annualreport2013/>.
- PMDU, 2010. Economic transformation programme (tourism). Retrieved from http://etp.pemandu.gov.my/Download_Centre-@-Download_Centre.aspx.
- PMDU, 2014. Economic transformation programme (tourism). Retrieved from http://www.sedia.com.my/SDC_Blueprint/Blueprint_Eng/7.ConserveandProtecttheEnvironmentforFutureGenerations.pdf.
- Rosniza, A., M.A. Abdullah., Rozalini, M.Z. Rosmiza, R.M.N. Abdul and F. Mohd, 2012. Potensi Tarikan Ekopelancongan Rekreasi Di Taman Rekreasi Air Panas (TRAP) Sungai Klah, Perak. *Journal of Society and Space*, 8(7): 125-134.
- Sabah Economic Development and Investment Authority (SEDIA), 2010. Blueprint Koridor Pembangunan Sabah: Memastikan Kulaiti Hidup yang Lebih Baik. Retrieved from http://www.sedia.com.my/SDC_Blueprint/Blueprint_BM/BAB6.pdf.
- SEDIA, 2010. Conserve and protect the environment for future generations. Retrieved from http://www.sedia.com.my/SDC_Blueprint/Blueprint_Eng/7.ConserveandProtecttheEnvironmentforFutureGenerations.pdf.
- Sabah State Government, 2015. Pengenalan kepada sabah. Retrieved from <https://www.sabah.gov.my/cms/?q=ms/content/mengenai-sabah>.
- Sabah Wildlife Department, 2016. Pusat Pemuliharaan Orangutan Sepilok. Retrieved from <http://www.wildlife.sabah.gov.my/?q=ms/content/pusat-pemuliharaan-orang-utan-sepilok>.
- Semporna District Office, 2015. Pelancongan. Retrieved from <http://ww2.sabah.gov.my/pd.sprn/Pelancongan.html>.
- Suraidah Roslan, 2013. Industri Pelancongan di Sabah Berkembang Positif. *Borneo Post*. Retrieved from <http://www.theborneopost.com/2013/07/05/industri-pelancongan-di-sabah-berkembang-positif/#ixzz40sM2OmyB>.
- The Houston Zoo, 2009. Orangutans face habitat loss. Retrieved from <http://www.houstonzoo.org/blog/orangutans-face-habitat-loss/>.
- The International Ecotourism Society, 2015. What is ecotourism? Retrieved from <http://www.ecotourism.org/what-is-ecotourism>.
- Tony, M.F.A.S., 1990. Perkembangan industri pelancongan di Sabah, sumbangannya terhadap KDNK dan peluang pekerjaan. Latihan Ilmiah. Universiti Kebangsaan Malaysia.
- United Nations Environment Programme, 2007. The last stand of the orang utan. Norway: United Nations Environment Programme.

World Tourism Organization, 2015. UN general assembly: Sustainable tourism is a tool for poverty reduction and environmental protection. Retrieved from <http://media.unwto.org/press-release/2015-01-14/un-general-assembly-sustainable-tourism-tool-poverty-reduction-and-environment>.

Zuriatunfadzliah, S., A.C.R. Rosniza and A. Habibah, 2009. Perubahan Budaya Orang Bateq dalam Situasi Ekopelancongan di Taman Negara. Journal of Social Science & Humanities, 4(1): 159-169. *View at Google Scholar*

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