

**ECOTOURISM DEVELOPMENT  
IN BELUM TEMENGOR FOREST COMPLEX:  
A MULTI-STAKEHOLDER PERSPECTIVE**

**AZREEN ROZAINEE BINTI ABDULLAH**

**UNIVERSITI SAINS MALAYSIA**

**2016**

**ECOTOURISM DEVELOPMENT  
IN BELUM TEMENGOR FOREST COMPLEX:  
A MULTI-STAKEHOLDER PERSPECTIVE**

by

**AZREEN ROZAINEE BINTI ABDULLAH**

**Thesis submitted in fulfilment of the requirements  
for the degree of  
Doctor of Philosophy**

**August 2016**

## ACKNOWLEDGEMENT

First and foremost, all praises be to the All Mighty Allah, for His blessings and the inspiration which overpowered all else in the journey of completing this dissertation.

I wish to take this opportunity to thank my supervisor, Prof Chan Ngai Weng for his full understanding, guidance, unwavering support and encouragement during my entire study program. My study program was made possible by the generous support from Pulau Banding Foundation, which aided and financed this research. I am also indebted to the Institute of Postgraduate Studies, USM for awarding the fellowship program which helped to finance my study and provided me with invaluable experience. I would like to extend my appreciation to all staff in the School of Humanities, Associate Professor Dr Azizan Sabjan, Associate Professor Dr Narimah, Associate Professor Dr Anisah Lee Abdullah, Prof Mashhor Mansor and Professor Ahmad Puad Mat Som for their kind assistance, support and encouragement throughout my PhD tenure. I would specially love to thank Prof Francis Loh Kok Wah for encouraging me to embark this journey in the first place. My gratitude also extends to Professor Suriati Ghazali, Professor Badaruddin Mohamed and Professor Amran Hamzah for their invaluable inputs and advice in improving this thesis.

My gratitude also goes to the indigenous people of Belum Temengor especially Pak Samad Jeranggong, Encik Rahim, Encik Ali and Pak Andak for their time and knowledge. Also not forgetting, Puan Illia, En Suhaimi, Puan Fadilah and all management staff in Perak State Park, tourists visiting BTFC, Water Watch Penang, Malaysian Nature Society, World Wide Fund for Nature Malaysia and other organisations whom without their valuable inputs and effort, this study might not

have been completed. Also, I would like to thank my friends, Dr Hong Chong Wern, Dr Ang Sek Chuan and Ong Ke Shin for their assistance and moral support.

Lastly but not least, I would like to dedicate this dissertation to my loving and understanding husband, my caring mother, my grandmother, my late grandfather (*Al-Fatihah*) and my whole big family for their full support and encouragement throughout my mission in completing this adventurous and remarkable journey.

# TABLE OF CONTENTS

ACKNOWLEDGEMENT	ii
TABLE OF CONTENTS	iv
LIST OF TABLES	ix
LIST OF FIGURES	xi
LIST OF PLATES	xii
LIST OF ABBREVIATIONS	xiii
ABSTRAK	xv
ABSTRACT	xvii
<b>CHAPTER 1: INTRODUCTION</b>	
1.1 Introduction	1
1.2 Problem Statement	5
1.3 Research Objectives	8
1.4 Research Questions	9
1.5 Research Hypothesis	10
1.6 Research Significance	13
1.7 Study Organisation	15
<b>CHAPTER 2: LITERATURE REVIEW</b>	
2.1 Introduction	16
2.2 Tourism Development	16
2.2.1 Sustainable Tourism Development	22
2.3 Ecotourism Emergence	27

2.3.1	Ecotourism as a Tool for Sustainable Development	30
2.4	The Triple Bottom of Ecotourism	35
2.4.1	Economic Impacts	36
2.4.2	Socio-Cultural Impacts	37
2.4.3	Environmental Impacts	38
2.5	Local Community Involvement and Participation	41
2.5.1	Community Support and Dissent towards Ecotourism Development	47
2.6	Ecotourism in Protected Areas	49
2.6.1	Support for Protected Areas Establishment	51
2.6.2	Top-down or Bottom-up Approach?	53
2.7	Ecotourism Development in Malaysia	54
2.7.1	Ecotourism and Protected Areas	56
2.7.2	Ecotourism and Indigenous People ( <i>Orang Asli</i> )	59
2.8	Theoretical and Conceptual Foundations	63
2.8.1	Stakeholder Theory	63
2.8.2	Achieving Sustainable Ecotourism Development: A Conceptual Framework	65
2.9	Conclusion	68

### **CHAPTER 3: METHODOLOGY**

3.1	Introduction	69
3.2	Research Design	69
3.3	Quantitative Data	70
3.3.1	Instrumentation	73

3.4	Qualitative Data	74
3.4.1	Semi-structured in-depth interviews	75
3.4.2	Key Informant Interview	77
3.4.3	Participant Observation	79
3.4.4	Use of Existing Secondary Data	80
3.5	Data Analysis	80
3.5.1	Quantitative Data	80
3.5.2	Qualitative Data	85
3.6	Hypotheses Testing	86
3.7	Limitations of Study	87
3.7.1	Generalisability	88
3.7.2	Accuracy	88
3.7.3	Validity and Reliability	88
3.8	Conclusion	90

#### **CHAPTER 4: STUDY AREA**

4.1	Introduction	91
4.2	History and Background of Study Area	91
4.2.1	Royal Belum	94
4.2.2	Temengor Forest Reserve	95
4.3	Natural and Cultural Heritage of BTFC	97
4.3.1	Environmental Features	97
a.	Climate	97
b.	Topography, Geology, Soils and Hydrology	97
c.	Flora and Fauna	98

4.3.2	Social Features	100
4.4	Preliminary Study on Ecotourism in BTFC	102
4.5	Conclusion	104

## **CHAPTER 5: FINDINGS AND DISCUSSION**

5.1	Introduction	105
5.2	Part I: Quantitative Analysis	105
5.2.1	Result from Hypotheses Testing	122
5.3	Part 2: Qualitative Analysis	126
5.3.1	Interview Findings with the Indigenous Community	126
5.3.2	Interview Findings with Key Informants	134
5.3.3	Common Themes	135
5.3.3(a)	Theme 1: Forest Dependency	135
5.3.3(a)(i)	Logging Activities	138
5.3.3(b)	Theme 2: Ecotourism Sustainability	140
5.3.3(b)(i)	Awareness and Knowledge	140
5.3.3(b)(ii)	Economic Gains from Ecotourism Participation	142
5.3.3(b)(iii)	Support	145
5.3.3(c)	Theme 3: Constraints and Limitations	150
5.3.3(c)(i)	Conflict between Stakeholders	150
5.3.3(c)(ii)	Littering and Negative Impacts	151
5.3.3(c)(iii)	Clean Water	153
5.3.3(c)(iv)	Accessibility and Competition	154
5.3.3(c)(v)	Attitude and Determination	154
5.3.3(c)(vi)	Carrying Capacity and Regulations	157



5.3.3(c)(vii)	Long Term Use of Resources	157
5.4	Discussions on Objectives	159
5.4.1	Objective 1: Discussion	160
5.4.2	Objective 2: Discussion	166
5.4.3	Objective 3: Discussion	169
5.4.4	Objective 4: Discussion	173
5.5	Revisiting Conceptual Framework	177
5.6	Conclusion	182

## **CHAPTER 6: CONCLUSION**

6.1	Introduction	183
6.2	Research Contributions	183
6.3	Recommendations for Future Policy Making	184
6.4	Suggestions for Future Research	186
6.5	Conclusion	187

## **REFERENCES**

## **APPENDICES**

Appendix 1 : Permission Letter

Appendix 2 : Questionnaire

Appendix 3 : Interview Questions

## **LIST OF PUBLICATIONS**

## LIST OF TABLES

		<b>Page</b>
Table 2.1	Elements and the potential impacts from ecotourism activities	40
Table 2.2	Categories of IUCN Protected Areas	50
Table 3.1	Total of distributed questionnaires	72
Table 3.2	Reliability analysis for potential impacts from ecotourism activities	82
Table 3.3	The reliability analysis for potential cause to impacts from ecotourism development	82
Table 3.4	Reliability analysis for perception and support towards sustainable ecotourism development in BTFC	83
Table 3.5	Support for establishment of Royal Belum state park reliability analysis	84
Table 3.6	Support for establishment of Temengor as part of state park reliability analysis	84
Table 4.1	A list of chronology on the establishment of Royal Belum	96
Table 5.1	Demographic profile of the tourists	107
Table 5.2	State or country of tourists' residency	109
Table 5.3	Number of visits and changes to the area	112
Table 5.4	Tourists' satisfaction level and their intention to visit the area again	113
Table 5.5	Tourist perception on the impacts of ecotourism development in BTFC	115
Table 5.6	Tourist perception on the cause of impacts of ecotourism development impacts in BTFC	117
Table 5.7	Perception and support towards sustainability of ecotourism development in percentages	121
Table 5.8	Support for the establishment for Royal Belum as State Park in percentages	121
Table 5.9	Support for Belum Temengor area to become a fully protected area, like Royal Belum in percentages	122

Table 5.10	Village names, location and the number of villagers of indigenous communities interviewed	128
Table 5.11	Number of respondents according to groups, n=42	131
Table 5.12	Key informants interview data	134

## LIST OF FIGURES

		<b>Page</b>
Figure 1.1	The causal relationships hypotheses between the key variables for visitor model	11
Figure 2.1	Butler's (1980) model of tourism area life cycle	21
Figure 2.2	The three elements of sustainable development	23
Figure 2.3	A model of sustainable tourism principles and values	25
Figure 2.4	Ecotourism protects the natural areas and achieve sustainability through conservation and development	33
Figure 2.5	Framework for evaluating the impacts of ecotourism	35
Figure 2.6	Stakeholder's sequence	41
Figure 2.7	Normative typologies of community participation	43
Figure 2.8	Conceptual framework for this study	66
Figure 4.1	The location of Belum-Temenggor Forest Complex	92
Figure 4.2	The number of tourists visiting Royal Belum, 2006-2014	103
Figure 5.1	Ecotourism attractions in BTFC	110
Figure 5.2	Ecotourism activities in BTFC	111
Figure 5.3	The education level of the respondents	132
Figure 5.4	Indigenous people's awareness and knowledge about ecotourism	142
Figure 5.5	Indigenous people's perception on ecotourism impacts	152
Figure 5.6	New conceptual framework of this study	181

## LIST OF PLATES

		<b>Page</b>
Plate 5.1	Mode of transportation to villages located near to the lake	127
Plate 5.2	Mode of transportation to villages located interior of Temengor, far from the lake	128
Plate 5.3	New settlement house built by the government	130
Plate 5.4	Traditional house built on stilts and straw roof	130
Plate 5.5	Women and children of indigenous people in Kg Tebang.	131
Plate 5.6	Children in Kg Tiang receiving sweets from a tourist	144
Plate 5.7	Logging activities in BTFC	148
Plate 5.8	Rubbish stuck at the edge of water body after water resides`	152

## LIST OF ABBREVIATIONS

AUD	Australian Dollar
BTFC	Belum Temengor Forest Complex
CFS	Central Forest Spine
DOE	Department of Environment
DWNP	Department of Wildlife and National Parks
ESA	Environmentally Sensitive Areas
GBP	British Pound
GDP	Gross Domestic Product
GNI	Gross National Income
IUCN	International Union for Conservation of Nature
JAKOA	Jabatan Kemajuan Orang Asli
MNS	Malaysian Nature Society
MOSTE	Ministry of Science, Technology and the Environment
MYR	Malaysian Ringgit
NEP	National Ecotourism Plan
NFA	National Forestry Act
NGO	Non-Governmental Organisation
NRE	Ministry of Natural Resources and Environment
NTP	National Tourism Policy
PAs	Protected Areas
SPSS	Statistical Package for Social Science
TNB	Tenaga Nasional Berhad
USA	United States of America
USD	United States dollar

USM	Universiti Sains Malaysia
WCED	World Commission on Environment and Development
WCPA	World Commission on Protected Areas
WDPA	World Database on Protected Areas
WTO	World Tourism Organisation
WTTC	World Travel and Tourism Council
WWF	World Wide Fund for Nature

# **PEMBANGUNAN EKOPELANCONGAN DI KOMPLEKS HUTAN BELUM TEMENGOR: SUATU PERSPEKTIF PELBAGAI PEMEGANG TARUH**

## **ABSTRAK**

Kajian ini memberi tumpuan kepada pembangunan ekopelancongan di Hutan Belum Temengor Complex (BTFC) di utara Perak, berdasarkan perspektif lima pihak berkepentingan. Lima pihak berkepentingan yang dikenalpasti adalah masyarakat pribumi tempatan (orang asli), pelancong, pihak berkuasa kerajaan dan badan pengurusan, badan bukan kerajaan serta operator pelancongan dan perniagaan. Kaedah campuran, dengan menggunakan kedua-dua kaedah kuantitatif dan kualitatif, telah digunakan untuk mencapai objektif kajian. Untuk kaedah kualitatif, temu bual mendalam semi struktur digunakan untuk menemuduga komuniti orang asli, sementara temu bual individu penting dilakukan ke atas pegawai pihak berkuasa kerajaan dan badan pengurusan, pengurus badan bukan kerajaan serta operator pelancongan dan perniagaan. Bagi kaedah kuantitatif, borang soal selidik diberikan kepada pelancong dan kemudian dikutip. Konsep ekopelancongan dan teori pihak berkepentingan menjadi kerangka teori dan konseptual bagi kajian ini. Dapatan kajian menunjukkan bahawa aktiviti ekopelancongan hanya memberikan sedikit perhatian kepada impak terhadap alam sekitar terutamanya pembuangan sampah di merata-rata tempat dan pelepasan sisa kumbahan tidak terawat ke dalam tasik. Program ekopelancongan yang ditawarkan juga tidak mengintegrasikan sepenuhnya pendidikan kesedaran alam sekitar ke atas pelancong. Walaupun majoriti daripada pihak berkepentingan menyokong sepenuhnya pembangunan ekopelancongan di BTFC, masyarakat orang asli tidak mendapat manfaat sepenuhnya daripada ekopelancongan kerana penglibatan mereka yang sangat terhad dalam sektor ini.



Kajian ini juga mendapati bahawa majoriti pihak berkepentingan menyokong penuh penubuhan Royal Belum dan mereka percaya bahawa dengan penggabungan Temengor ke dalam Royal Belum sebagai taman negeri yang lebih besar dapat meningkatkan lagi industri ekopelancongan di BTFC dan membantu memulihara alam sekitar. Kajian ini menyimpulkan bahawa pembangunan ekopelancongan di BTFC masih berada pada fasa awal pembangunan dan menawarkan cadangan untuk menambah baik perkembangan ini. Kelestarian pembangunan ekopelancongan masih belum dapat dicapai secara menyeluruh lagi di BTFC kerana orang asli di sini masih tidak berkebolehan dan tidak berkemampuan untuk mengendalikan ekopelancongan secara sendiri. Sebaliknya, kolaborasi semua pihak yang berkepentingan dalam keadaan dinamik ini dilihat sebagai satu pilihan yang baik untuk diterima pakai bagi mengukuhkan lagi pembangunan ekopelancongan di BTFC.

# **ECOTOURISM DEVELOPMENT IN BELUM TEMENGOR FOREST COMPLEX: A MULTI-STAKEHOLDER PERSPECTIVE**

## **ABSTRACT**

This study is focused on ecotourism development in Belum Temengor Forest Complex (BTFC) in northern Perak state, based on the perspectives of five groups of stakeholders. The five groups of stakeholders identified are the local indigenous community, tourists, governmental and management authorities, NGOs, and tour and business operators. A mixed method, using both quantitative and qualitative methods, was used to achieve the objectives of the study. For the qualitative methods, semi-structured in-depth interview was used to interview the indigenous community, while key informants interview was carried out on governmental and management authorities, NGOs and tour and business operators. In quantitative method, questionnaire was distributed to the tourists and subsequently collected. The concepts of ecotourism and stakeholder theory set the theoretical and conceptual context of the study. The findings revealed that ecotourism activities pay little concern on environmental impacts especially on littering and wastewater treatment. Ecotourism tours also do not fully integrate environmental awareness education in their programmes. Eventhough majority of the stakeholders fully support ecotourism development in the BTFC, the indigenous community did not fully benefit from it as very limited numbers of them are involved and participate in this sector. This study also found that majority of the stakeholders fully support the establishment of Royal Belum and they believed that by incorporating Temengor into Royal Belum as a larger state park will further boost ecotourism industry in BTFC and help to conserve the environment. This study concludes that ecotourism development in BTFC is still

at its developmental phase and offers recommendations to improve this development. Sustainable ecotourism development is not yet possible to achieve as the indigenous community in BTFC is still inadequate and incapable of handling ecotourism on their own. Instead, collaboration between all stakeholders in this dynamic condition is seen as a viable option for adoption in order to further strengthen ecotourism development in BTFC.

# CHAPTER 1

## INTRODUCTION

### 1.1 Introduction

World Travel and Tourism Council (WTTC) reported that tourism is one of the world's largest industries employing more than 265 million people worldwide, contributing to an estimate of 9.5 percent (USD 6,990.3 billion) of Gross Domestic Product (GDP) in 2013 (WTTC, 2014b). WTTC also predicted that GDP of tourism industry will rise up to 10.3 percent (USD 10,965.1 billion) by 2024. This value will outcompete other major sectors such as business and financial services, manufacturing and transport. The increasing trend of people travelling to many places around the globe has significantly contributed to the economic growth in many countries especially in South East Asia which saw money spent by international tourists rising up to more than 10 percent compared to previous years. In Malaysia alone, the total contribution of tourism industry was MYR 158.2 billion (16.1 percent of Malaysian GDP) creating 1.9 million jobs (14.1 percent of total employment) in 2013 and WTTC forecasts that the Malaysian tourism industry will continue to grow up to 4.4 percent per annum (WTTC, 2014a).

Among the various types of tourism that is much gaining attention is ecotourism. Ecotourism is fast developing with an estimated annual growth rate of five percent worldwide (Das, 2011). Ecotourism, a form of nature-based tourism, generally sets in natural environments offering solace or escapade for people to relax and unwind from their daily routine. It is becoming a trend for tourists to travel to ecotourism destinations to enjoy the Mother Nature's beauty and experience unique cultures. Lou and Zeng (2008) reported that ecotourism is estimated to contribute

about one quarter of the total income of international tourism, estimating at least USD 20 billion every year.

The ecotourism evolution has witnessed more tourists visiting natural protected areas. In the United States of America (USA), the US National Park Service (NPS) (2014) reported that more tourists have been recorded visiting national parks with 292.8 million visitors in 2014 compared to 273.6 million visitors in 2013. NPS further reported that visitors to national parks generated USD 26.75 billion in economic activity and supported 243,000 jobs in 2012. In United Kingdom, the national parks there attracted 95 million visitors per annum and the annual visitor expenditure is estimated to be GBP 3.0 billion (Silcock et al., 2013). The Department of National Parks, Sport and Racing, Queensland (2013) reported that in 2011, there were 2.4 million international visitors and 10.4 million domestic travellers visited a national park in Australia. In Queensland alone, ecotourism industry contributed AUD 4.43 billion to the state's economy.

The significant impact brought by ecotourism industry in the west has spurred the economy and encouraged more Asian countries to venture into this area. Asian countries like Japan and South Korea are the countries pushing for more ecotourism projects by promoting their respective natural protected areas and switching from mass tourism to more sustainable tourism such as ecotourism (Hiwasaki, 2003; Kureha, 2008; Lee, Lawton, & Weaver, 2012) contributing to high growth rate of averaging between 10 to 25 percent annually in Asia-Pacific region (Lindberg, Furze, Staff, & Black, 1997).

Other Asian countries have also begun to realise the positive impacts of ecotourism and not wanting to miss out this golden opportunity. Studies have shown that there is a trend of growing number of tourists visiting protected areas and

indulging in ecotourism activities such as in Kaptai National Park, Bangladesh (Rahman et al., 2013), Xingkai Lake National Nature Reserve, China (Su, Wall, & Ma, 2014), Khao Yai National Park, Thailand (Phumsathan, 2010) and Gunung Gede Pangrango National Park, Indonesia (Nuva et al., 2009).

Albeit being still young and relatively new towards ecotourism, nevertheless, Malaysia has been drawn to the growing worldwide interest in ecotourism. The nation's tourism scene is slowly shifting towards a more sustainable form of tourism such as ecotourism and gaining acceptance from environmentalist and tourists alike (Chan, 2004). Located on the green belt, Malaysia is blessed with rich tropical ecosystems, which provides many opportunities for ecotourism development. Beautiful landscapes together with a plethora of diversified flora and fauna offers a unique attraction for both domestic and international tourists (Clifton, Barrow, Chan, & Tan, 2004). Therefore, the Malaysian government has developed National Ecotourism Plan in 1996 to assist ecotourism development in the country.

The nation has seen a growing interest in visiting protected areas as reported through studies done in Pahang National Park (Shuib & Abidin, 2002), Mulu National Park (Hazebroek & Morshidi, 2002), Kinabalu National Park (Ghazali & Sirat, 2011) and Penang National Park (Sato, Hong, Masazumi, Mohamed, & Chan, 2013). Apart from national protected parks, Malaysia also owns many ecotourism destinations for tourist to explore such as forest reserves (Temengor forest reserve in Perak and Bukit Panchor forest reserve in Penang), recreational forests (Temurun waterfall recreational forest in Langkawi and Bukit Hijau recreational forest) and wildlife reserves (Sungkai Sambar Deer and Pheasant Wildlife Reserve in Perlis and Kampung Kuantan Firefly Reserve). These ecotourism destinations are invaluable treasures for Malaysians to preserve and care for future generations.

Among the highest potential ecotourism sites as identified by the Malaysian government through National Ecotourism Plan is the Belum Temengor forest complex (hereafter will be referred as BTFC). BTFC as the study area holds one of the highest potential ecotourism sites to be fully developed due to its rich natural and cultural heritage. Since then, the area has been in the limelight and the government aims to develop the area into a ‘sustainable international ecotourism destination’ (Emmanuel, 2010). With the increasing number of tourists visiting the area each year, more studies, research and groundwork are needed to minimize the negative impacts that they may bring. Planning and management actions based on research findings can help to achieve the two main purposes of ecotourism- to contribute to economic growth (both for locals and other stakeholders) and conservation of the natural area. If BTFC is not well maintained and mismanaged, there are overlooked or unforeseen consequences to this type of tourism that might pose negative impacts to the environmental attractions and local community in this ecotourism destination (Abdullah & Chan, 2011; Abdullah, Chan, & Som, 2011; Chan & Abdullah, 2012).

The need to properly manage ecotourism development in this sensitive area in terms of minimizing the impacts (environmental and socio-economic impacts) and providing equal sharing benefits towards the local community, especially the indigenous people living within BTFC are pivotal for its sustainability. It is of utmost importance to sustain this ecotourism destination and the attractions within it, either the unique local cultures or natural attractions, in order that the benefits yield from ecotourism development can be savoured for many more years to come.

## 1.2 Problem Statement

Ecotourism development in BTFC can present numerous benefits towards the environment and socio-economic growth but it also can bring negative impacts that pose challenges towards the stakeholders. The attractiveness of BTFC in term of its rich biodiversity is often regarded as invaluable asset and a major pull factor that drive tourists to BTFC. As the area is classified as Environmentally Sensitive Area Rank I under the National Physical Plan (2010-2030) and one of Important Bird Areas (IBA) in the world, it is undeniably important to preserve the area at its natural state.

Ecotourism in many cases is seen as viable tool to promote conservation of the area and at the same time preserve the area from over development (IUCN, 1992; Wood, 2012). However, the blooming of ecotourism industry in BTFC, if not well regulated can be a threat towards the biodiversical resources and may pose negative environmental impacts to the rare or endemic species of flora and fauna. The exponential increasing number of tourists visiting BTFC since the launching of the Royal Belum in 2006 may create a platform of issues for management and planning as the supply of ecotourism products (such as Rafflesia, saltlicks, wildlife and waterfalls) are very sensitive and limited, resulting to degradation of the resources. According to Baysan (2001), the pressure from the blooming ecotourism industry create issues such as littering, water pollution from domestic waste, destruction of vegetation, unlimited number of tourists and too much building construction. Certainly, real impacts cannot be estimated with certainty at any one time, but Fennell and Ebert (2004) assert that perceived impacts can best substitute this. It is preferable to be aware of the impacts, anticipate preventive actions rather than fixing



irreversible damage occurred due to ignorance, especially in highly important ecosystems this place contains.

Apart from the environmental impacts, ecotourism development is also associated with the socio-economic impacts bestowed upon the local communities living within or adjacent to the area. According to Honey (2008), ecotourism is pursued by many countries around the world especially the developing countries as ecotourism is seen as a powerful engine for socio-economic advancement and poverty reduction. Honey (2008) further argues that it is expected that ecotourism industry to create job opportunities, increase health benefits, provide education and overall improve the livelihood of the local community. Yet the bountiful benefits of ecotourism development are far reached in some cases especially in distributing equal benefits towards the local community.

In the case of BTFC, the local community that resides within the area is the *Orang Asli* (indigenous people) of *Temiar* and *Jahai*. In general, the *Orang Asli* community in Malaysia is still living below poverty line, with low or no education level (Caroline, 2008). The development of the ecotourism industry in BTFC is seen as an impetus to reduce the levels of poverty from the spill over of ecotourism benefits. However, according to Zanisah et al. (2009), it is difficult to maximise the benefits to the indigenous people as their involvement in tourism sector is rather low and isolated. She also revealed that they are often marginalised and their lack of education further acerbates the problem. Salleh and Bettinger (2008) agreed that the presence of indigenous people in protected areas is indeed a complicated factor in planning and management of any ecotourism destination. Hence, it is important that the indigenous people aware of the development happening around them and

participate in ecotourism development to ensure they will secure benefits from it (Abdullah, Chan, & Mohamed, 2013).

Given the magnitude of the blooming ecotourism industry in BTFC, the need for the industry to be sustainable cannot be ignored. Further, the designation of Royal Belum as a fully protected area, while Temengor Forest Reserve still mainly a production forest (logging activities is still being allowed here) heightens the challenge for sustainable ecotourism development in the area. Logging activities is currently active in Temengor leading to many environmental problems. According to Cone and Hayes (1984), logging activities may lead to soil erosion, aesthetic damage, and water pollution. If the logging activities still continue in Temengor, the country might lose the endemic flora and fauna found in the area and most importantly affect the forest's function as watershed.

As BTFC is home to rich biodiversity of flora and fauna and majority of the indigenous people living here still depends on the forest resources, it is inevitably a good decision to promote Temengor to be a fully protected area as well. According to Schwabe (2015), Malaysian Nature Society (MNS) has long been a promoter and contender towards the long term protection of BTFC as a whole. This designation can potentially play an instrumental role in not only the protection of the natural resources and the sustainability of the indigenous people livelihood, but also ecotourism industry in BTFC in general. The idea of incorporating Temengor into Royal Belum might turn the area into a bigger nature area reserve serving as a wildlife sanctuary and more attractive ecotourism destination in Malaysia in future (Ang & Chan, 2009).

Notwithstanding, a major ingredient in the sustainable development of ecotourism is the support of the stakeholders, particularly the indigenous people

living in the area (Byrd, 2003). Various stakeholders also need to be involved in the ecotourism development management and planning activities in order to achieve the world's renowned ecotourism standard and achieve sustainability (Byrd, 2007). Their perception and support on ecotourism development are some of the most crucial factors in making informed policies especially in planning and management of BTFC. Without the inclusion and support of all the stakeholders, it is impossible to develop ecotourism in a sustainable manner (Backman, Petrick, & Wright, 2001) and manage the protected area effectively (Xu et al., 2006).

The magnitude of the blooming ecotourism industry in sensitive environment such as BTFC is a challenge for achieving sustainability. Nevertheless, understanding and incorporating the perception of the stakeholders involved especially the marginalised indigenous people living with the area regarding the insights (needs and problems) of ecotourism development can greatly help to overcome the arising issues and seek the best solutions, in order to ensure this industry remain alive and sustainable for future generations.

### **1.3 Research Objectives**

The main purpose of this study is to examine and analyze the perceptions and views of five ecotourism stakeholder groups on ecotourism development in BTFC. The five stakeholder groups chosen are (i) indigenous community (refers to the local community which comprises of indigenous people from *Temiar* and *Jahai* clans, living within the boundaries of the ecotourism destination area- BTFC, and potentially affected, both positively and negatively, by the impacts of ecotourism development), (ii) tourists, (iii) management authorities, (iv) non-governmental organisations (NGOs), and (iv) tour and business operators. Apart from that, this

study also attempts to determine their support towards the establishment and the development of protected areas (Royal Belum and Temengor forest reserve<sup>1</sup>) as ecotourism destinations.

The study objectives can be sub-defined into the followings:

1. To examine the positive and negative impacts of ecotourism development in BTFC particularly towards the indigenous community.
2. To assess the extent of the indigenous community's involvement and participation in ecotourism development.
3. To determine the stakeholders' perception and support for sustainable ecotourism development and the establishment of the protected areas.
4. To identify the needs, potential problems and weaknesses that might hinder BTFC from achieving sustainable ecotourism.

#### **1.4 Research Questions**

Based on research objectives, the following are the guiding research questions for this study:

1. What are the positive and negative impacts of ecotourism development in BTFC particularly on the indigenous community? How do the stakeholders perceive impacts of ecotourism development in BTFC?
2. What is the extent the indigenous communities' level of involvement and participation in the ecotourism development? What are the

---

<sup>1</sup> Temengor forest reserve will be now onwards to be just referred as Temengor only.

problems and weaknesses that might hinder indigenous community development in ecotourism?

3. (a) What are the stakeholders' perceptions towards sustainable ecotourism development in BTFC and to what extent will they support for this development?  
  
(b) How the stakeholders perceive and support for the establishment and development in Royal Belum and Temengor forest reserve? Do they support of the idea of a larger state park by including Temengor forest reserve into Royal Belum?
4. What are the obstacles and limitations to ecotourism growth in BTFC? How to potentially overcome them?

### **1.5 Research Hypothesis**

Based on the set of objectives mentioned above, several hypotheses have been identified in this study to test quantitative findings from questionnaire distributed to tourists. Figure 1.1 represents a model which illustrates the likely causal relationships between the key variables in this study. The arrows show expected causal relationships between the variables in the model. The intervening variable in Figure 1.1, perceptions and support for sustainable ecotourism development, is also known as a mediating variable. A mediator can explain the relationship between the two other variables or can be described as a mechanism via which one variable influences another (Baron & Kenny, 1986).

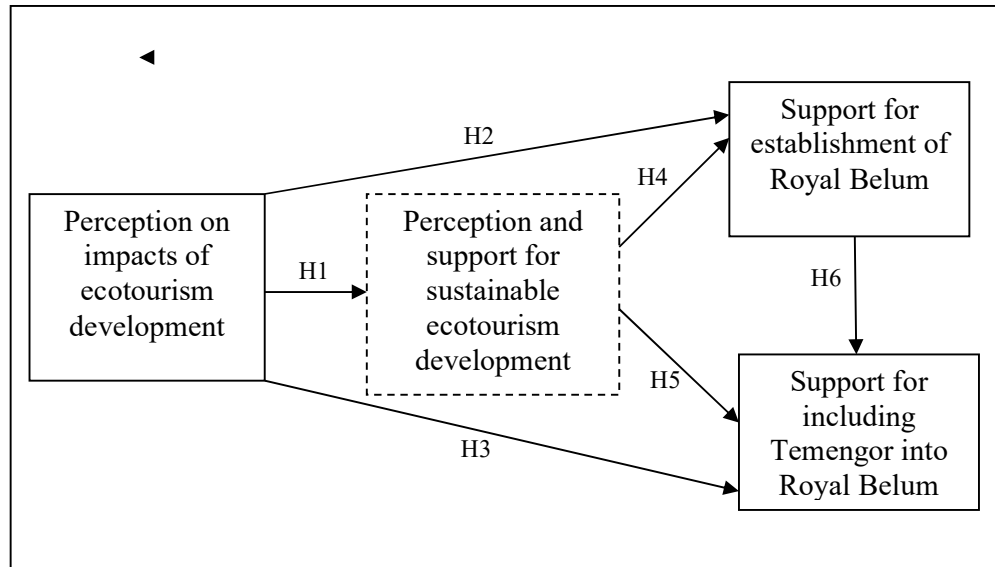


Figure 1.1: The causal relationships hypotheses between the key variables for tourist model

The diagram constitutes both direct and indirect relationships. Baron and Kenny (1986) further state that direct relationship happens when a variable has an effect on another, without a third variable intervening between them; while an indirect relationship occurs when a third variable intervenes in the connection between two variables. The hypothetical model depicts likely causal relationships between independent variables (Perception on impacts of ecotourism development) and the dependent variables (Support for Royal Belum establishment and Support for including Temengor into Royal Belum). Also included is the mediating variable (Perceptions and support for sustainable ecotourism development) that may be both a cause and effect variable. The following six hypotheses were formulated based on the model to examine the relationships between the following three constructs:

Perception on impacts of ecotourism development:

**Hypothesis 1**

H<sub>0</sub>: There is no association between impacts of ecotourism development and perception and support towards sustainable ecotourism development.

H<sub>A</sub>: There is an association between impacts of ecotourism development and perception and support towards sustainable ecotourism development.

**Hypothesis 2**

H<sub>0</sub>: There is no association between impacts of ecotourism development and support towards the establishment of Royal Belum

H<sub>A</sub>: There is an association between impacts of ecotourism development and support towards the establishment of Royal Belum

**Hypothesis 3**

H<sub>0</sub>: There is no association between impacts of ecotourism development and support towards establishment of a larger state park by including Temengor into Royal Belum

H<sub>A</sub>: There is an association between impacts of ecotourism development and support towards establishment of a larger state park by including Temengor into Royal Belum

Perception and support for sustainable ecotourism development:

**Hypothesis 4**

H<sub>0</sub>: There is no association between perception and support towards sustainable ecotourism development and support towards the establishment of Royal Belum.

H<sub>A</sub>: There is an association between perception and support towards sustainable ecotourism development and support towards the establishment of Royal Belum.

**Hypothesis 5:**

H<sub>0</sub>: There is no association between perception and support towards sustainable ecotourism development and support towards the establishment of a larger state park by including Temengor into Royal Belum.

H<sub>A</sub>: There is an association between perception and support towards sustainable ecotourism development and support towards the establishment of a larger state park by including Temengor into Royal Belum.

Support for establishment of Royal Belum and support towards establishment of a larger state park by including Temengor into Royal Belum

**Hypothesis 6**

H<sub>0</sub>: There is no association between support towards establishment of Royal Belum and support towards establishment of a larger state park by including Temengor into Royal Belum

H<sub>A</sub>: There is an association between support towards establishment of Royal Belum and support towards establishment of a larger state park by including Temengor into Royal Belum

**1.6 Research Significance**

This study is unique as it focuses on the perspective of five different stakeholders of ecotourism development in BTFC. To date, there is no research done on this topic with the scope on this area. Stakeholders' insights on their needs and problems on ecotourism development are crucial for consideration especially in managing this sensitive area. Apart from that, this study hopes to contribute positively to increase the livelihood of the indigenous people living within BTFC. The results and information garnered from this study hopefully could help to assist in:



- helping the park management to understand more on the stakeholder's perception, views and concerns on impacts posed by ecotourism development towards the sensitive ecosystems in BTFC.
- increasing indigenous community's involvement and participation in ecotourism development and hence, improving their skills, livelihood and garnering economic benefits for their community
- improving the local's support for ecotourism development and minimize conflict between park management and the local community.
- helping to conserve and preserve the ecosystems of which the stakeholders care and treasure in BTFC.
- informing and influencing plausible strategies for positive policy and decision making in relation to the ecotourism development in BTFC.
- influencing the tour and business operators in BTFC to be more environmentally conscious and indirectly motivate them to provide more eco-friendly tours that integrate environmental awareness education to tourists.
- Creating a more sustainable ecotourism development in BTFC for long term practice and achieve a world's standard 'true ecotourism' destination.
- enhancing the well-being of the pristine environment in BTFC

Above all, the outcome of this study will help the management authorities either public or private, to develop and manage protected areas in Malaysia especially in BTFC more efficiently, preserve the pristine environment, and at the same time securing long term benefits for Malaysian ecotourism industry.

## **1.7 Study Organisation**

This study is organized into six chapters. Chapter One consists of the introduction including the problem statement, research objectives, research questions, research hypotheses, research significance and a general background of the study model used in this study. Chapter Two includes a review of literature of related to the ecotourism development, models, theory and a conceptual framework used in guiding this study. Chapter Three discusses the study methodology by outlining the methodological approaches, the sample, data collection procedures and data analysis. Chapter Four provides an overview of the study area by describing the natural heritage both flora and fauna of the area. This chapter also includes the social aspects of BTFC including the indigenous people of the area and also provides the ecotourism attractions in the area. Chapter Five presents the study findings, data analysis and discussions based on the findings. Chapter Six summarizes the study, provides recommendations from the findings and suggests future research to be undertaken.

## **CHAPTER 2**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

This chapter covers around the topic of ecotourism, starting with the emergence of ecotourism, its various definitions, development and explores the important elements which make up the ecotourism concept. From the literature study carried out, we have found and selected three important elements to attain sustainable ecotourism development: (i) impacts of ecotourism, (ii) local community involvement and participation, and (iii) support for ecotourism development. Apart from that, support for establishment of protected areas in which the ecotourism takes place is also another element that will be discussed in this chapter. The stakeholder theory serves as the theoretical background of this study. Finally, a conceptual framework is proposed at the end of the chapter.

#### **2.2 Tourism Development**

Tourism is not a new word and has first appeared in English language in the nineteenth century describing travel as a leisure activity (Honey, 1999). The concept likewise can be traced back into ancient times where people travel for many kinds of reason such as religious pilgrimages, in search of natural resources, wars, geographic explorations, and even to enjoy natural environment. Tourism, as based on some fundamental foundations that Mathieson and Wall (2004) provide, “is the temporary movement of people to destinations outside their normal places of work and residence, the activities undertaken during their stay in those destinations, and the facilities created to cater their needs”. This definition is not adequate for research

purposes or private sectors, and hence specific definitions have been developed to better suit individual needs and to serve different environments. Fennell (2008) defines tourism as “the interrelated system that includes tourist and the associated services that are provided and utilized (facilities, attractions, transportations and accommodation) to aid in their movement”. To better complement this definition, United Nations World Tourism Organization (UNWTO, 2015) describes tourist as “a person travelling for pleasure for a period of at least one night, but not more than one year for international tourists and six months for person travelling in their own countries, with the main purpose of the visit being other than to engage in activities for remuneration in the place(s) visited”. On the other hand, UNWTO further defines a visitor as a “traveller taking a trip to a main destination outside his/her usual environment, for less than a year, for any main purpose (business, leisure or other personal purpose) other than to be employed by a resident entity in the country or place visited. A visitor (domestic, inbound or outbound) is classified as a tourist (or overnight visitor), if his/her trip includes an overnight stay, or as a same-day visitor (or excursionist) otherwise.”

Tourism is flounced by globalization and has become a global phenomenon. Countries around the globe are turning tourism as a strategy for achieving development in the destination areas. The development of tourism is seen as a vehicle for progress and modernisation, and as a symbol of westernisation (Roche, 1992). Davidson (1994) further added that tourism is more than just industry as it acts both as engine of economic and social force. It works more like a ‘sector’ that impacts a wide range of other industries, apart from business and government. Tourism also stimulates and affects other related sectors. According to Britton (1992), tourism contributes greatly to the foreign exchange, attract development

capital, increase employment rate and promote economic independence. Therefore, the relationship between tourism and development has evolved for a very long time since Second World War along very similar timelines (Telfer, 2002).

Development implies growth, change and expansion and, as Stewart (1997) states that “development may be defined as positive social, economic and political change in a country or community... Development is concerned with positive change in existing human societies, and the success of development efforts is measured by the results seen in society”. Weaver (1998) further added that development connotes “progression toward some kind of desirable outcome”. Development is an evolutionary process with three sets of development goals: human survival needs (mainly food and shelter), standards of living (such as education and health), and human rights (such as social justice and political sovereignty) (Todaro, 1994). According to Sharpley (2015), development is “a complex, multidimensional concept which not only embraces growth and ‘traditional’ social indicators, such as health care, education and housing, but also seeks to confirm the political and cultural integrity and freedom of all individuals in the society”. In accordance to tourism, Sharpley (2015) further states that tourism development essentially involves broadening the developmental benefits (socio-economic) of tourism industry to the destination areas and communities.

There are many models used to describe tourism development. They include; the process of physical/spatial development (Miossec, 1976; cited in Pearce, 1995), the tourism life cycle (Butler, 1980) and responsibilities in the development process (Nickerson, 1996). However, this study only touched upon two well-known models; Miossec’s tourists development model and Butler’s destination life cycle model.

Miossec's (1976 cited in Inkson & Minnaert, 2012) model stresses the spatial dynamic of tourism development through a consideration of four main elements; (i) resorts, (ii) transportation, (iii) tourist behaviour and (iv) the attitudes of tourist brokers in the local community. Within this framework, Miossec highlights the relationships between five phases; basically parallel development of resort, transportation improvements and increasing number of tourists (demand). Further elaboration is as follows:

- Phase 0 - the region has few or no transportation links, not known by tourists and therefore no tourism development. The host community regards potential development either very positively or very negatively.
- Phase 1 – development of pioneer destination, either by accidental discovery by explorer type tourists or as planned development policy. Transportation within the region begins to develop. Tourists begin to take interest and acknowledge the region. At this stage, host community will remain vigilant to assess the impacts of the pioneer resort.
- Phase 2 – infrastructure development creates transportation links between resorts. Tourist numbers increase as tourists become aware of the range of tourism destination in the region and the introduction of policy and infrastructure to service the resorts.
- Phase 3- host community attitudes changes as they may accept, reject or call for planning control to limit or direct further development. If they accept, tourism development will continue to grow. On the other hand, if they reject or show discontentment, tourism growth will be confined to specific destinations. Destinations in the region will compete for tourists, resulting to targeting specific tourist markets. The original tourist type no longer visits the area. Instead, the region as a whole has a well known tourism image becomes the main attraction.

- Phase 4- specialisation continues with distinct tourists types in each resort. Transportation is easily accessible between resorts across the region. The region has a well-known tourism image.

Butler's (1980) widely cited model predicts a life cycle in the development of tourist resorts. His model, also known as tourist area life cycle is a useful model concerned with evolution of a tourist area. The model can be divided into six stages:

1. Exploration- A small number of tourists, new location, exotic adventurous travel, limited by lack of access (minimal impact) facilities, and local knowledge.
2. Involvement- Due to the increased awareness and facilities provided, visitor numbers will increase. Local community begins to provide some facilities for tourists.
3. Development- With smart marketing strategy, information dissemination, and further facility provision, the area's popularity grow rapidly. Tourism becomes a big business, big organisations manage and organise tourism, leading to less local involvement.
4. Consolidation- The area continues to attract tourists, but the growth rate is not as fast as before. Tourism becomes an important industry, former agricultural lands are now used to build hotels and old-fashioned jobs such as fishing and farming become less prominent. Resentment and tensions among locals and tourists begin.
5. Stagnation- The increased rate of visitor numbers will decline as maximum levels of carrying capacity has been reached. These may be identified in terms of environmental factors (land scarcity, water quality, air quality), of physical plant (transportation, accommodation, other services), or of social factors (crowding, resentment by the local population). An increased local opposition towards tourism and awareness of the problems may be observed.
6. Decline or Rejuvenate- From the stagnation point onwards there are 2 basic possibilities: Decline or rejuvenation (regrowth of the resort). Decline can be slow or rapid, in terms of number of tourists, popularity and business opportunities. However, it is possible for the industry to

rejuvenate. By supplying funding aid from either a private company or the government to boost its popularity, visitor numbers may increase again. This stage is further divided into five scenarios between complete rejuvenation and total decline:

A: Successful redevelopment leads to renewed growth.

B: Minor modifications to capacity levels lead to modest growth in tourism.

C: Tourism is stabilised by cutting capacity levels.

D: Continued overuse of resources and lack of investment leads to decline.

E: War, disease or other catastrophe causes an immediate collapse in tourism.

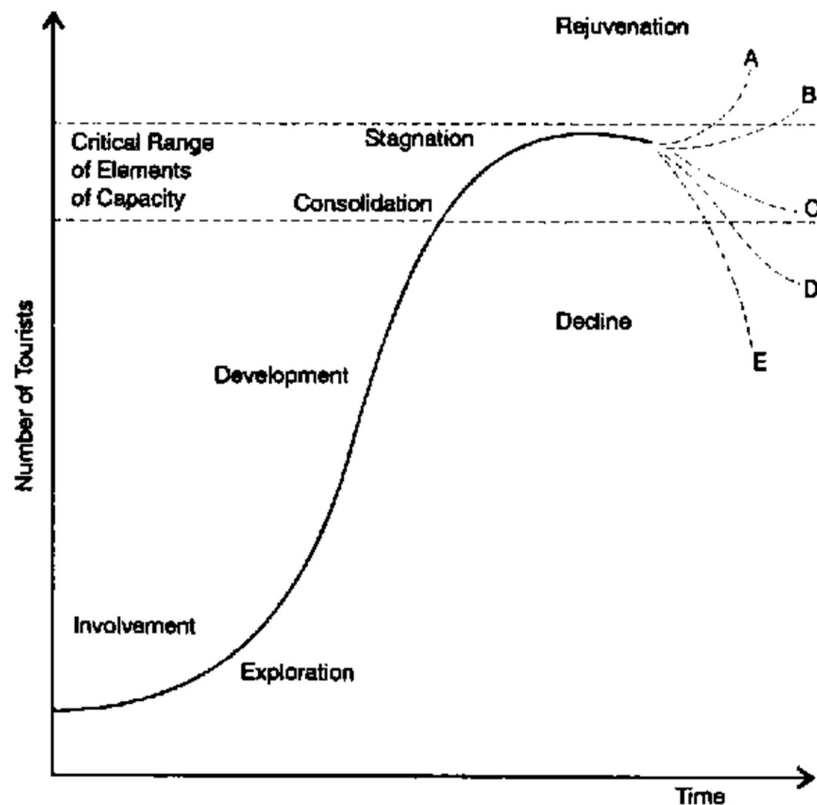


Figure 2.1: Butler's (1980) model of tourism area life cycle



According to Howie (2003), Butler's model is based merely on knowledge of the development of various tourists destinations that predates the contemporary period where there was an increase in foundation of planning and sustainable development. Weaver and Lawton (2004) has tested this model on resident's perception of tourism in Gold Coast, while Dong, Morais and Dowler (2004) have tested based on ethnic tourism in remote Yunnan. Both results failed to explain the residents' involvement and did not follow Butler's proposed cycle of tourism development. However, the support for this model has been mixed. In contrast, many studies (Haywood, 1986; Karplus & Kracover, 2005; Meyer-Arendt, 1985; Papatheodorou, 2004) concur that the model is useful and adequate in analyzing the development of tourism destination as well as evolution of tourism markets. Haywood (1986) further recommends this model as a possible tool that can be used in planning and management of tourist areas.

Nickerson (1996) has classified tourism development into three types of models (integrated development, catalytic development and coattail development) based on responsibilities in the development process. Integrated development refers to the development undertaken by a single promoter or entrepreneur with the aim to avoid any outside interference or involvement. On the other hand, catalyst development is not being monopolized by a single entity. Instead, the major entrepreneur encourages other entrepreneurs to take part in complementary activities in order to further stimulate tourism development in the area. Meanwhile, coattail development is usually seen in natural parks, historical sites and areas with ecological significance that can attract tourists. These areas create economic opportunities for many entrepreneurs especially to those living near the area (Nickerson, 1996).

### 2.2.1 Sustainable Tourism Development

Escalated awareness towards the importance of environmental protection and conservation has given birth to the term 'sustainable development', which was first coined by the International Union for Conservation of Nature (IUCN) in their 1980 publication titled *The World Conservation Strategy* (Hall & Lew, 1998). The term also became a buzz word in the political platform after a report entitled *Our Common Future* or commonly known as the 'Brundtland Report' was published by World Commission on Environment and Development (WCED). The Brundtland Report defines sustainable development as “development that meets the needs of the present without compromising the ability of future generation to meet their own needs” (WCED, 1987). Sustainable development (as displayed in Figure 2.2) tries to strike a balance between three interdependent and mutually reinforcing elements (economy, social and environmental) and hopes to integrate them in every strategies and partnerships for development (Kayne, 2010).

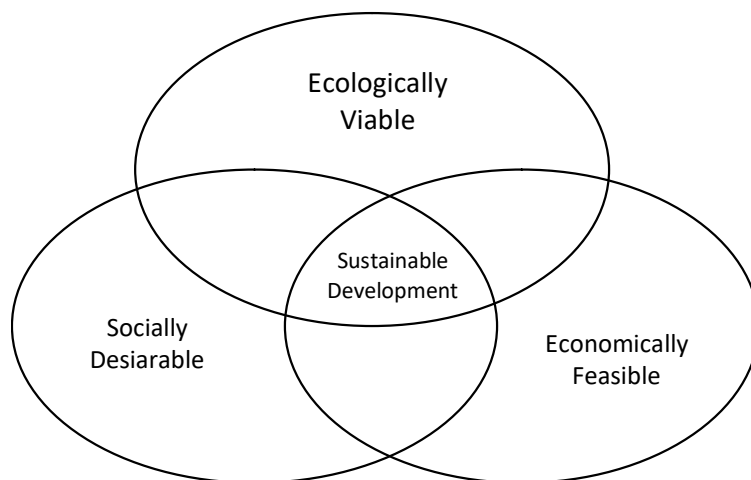


Figure 2.2: The three elements of sustainable development (adapted from Campbell & Heck, 1997).

According to Fennell (2002), the origins of sustainable development can be traced back to the conservation movements of the mid-nineteenth century and Rachel Carson's book, *Silent Spring* in 1962. Both sources were identified as some of the major catalyst of environmentalism movements at that time. Subsequently, sustainable development was further emphasized in United Nation's conferences such as the Earth Summit in Rio de Janeiro (1992) and New York (1997). Both summits have attributed to the impetus for tourism, as one of the world's largest industry, to apply the principles of sustainability in this industry (Holden, 2000; Williams & Ponsford, 2009). In short, the concept of sustainable tourism evolved consequentially to the increasing awareness and perception on nature which consecutively, affected economic development and the *modus operandi* of the tourism industry.

Sustainable tourism is a specific term used to denote the application of sustainable development principles in the context of tourism. It can be argued that this concept emerged from the awareness of the negative impacts posed by mass tourism and the subsequent birth of 'green tourism' (Swarbrooke, 1999). The underlying concept of sustainable tourism development forms the equilibrium between ecological and social elements, which is quite similar to sustainable development. Page and Dowling (2002) define sustainable tourism development as:

“... aims to meet the needs of present tourists and host regions while protecting and enhancing environmental, social and economic values for the future. Sustainable tourism development is envisaged as leading to management of all resources in a way that it can fulfill economic, social and aesthetic needs while maintaining cultural integrity, essential ecological processes, biological diversity and life support systems”.