



**UNIVERSITI PUTRA MALAYSIA**

**LOCAL COMMUNITY INVOLVEMENT IN ECOTOURISM ACTIVITIES  
AND THEIR PERCEPTIONS ON COLLABORATION MANAGEMENT IN  
BHAWAL NATIONAL PARK, BANGLADESH**

**ALTAF HOSSAIN SHEIKH**

**FH 2007 8**



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**By**

**ALTAF HOSSAIN SHEIKH**

**Thesis Submitted to the School of Graduate Studies, Universiti Putra Malaysia,  
in Fulfilment of the Requirements for the Degree of Master Science**

**September 2007**



## **DEDICATION**

To my father Jafor Ali Sheikh, mother Fatema Begum,  
wife Rehena Perveen Tuli and son S.M. Araf Ayman



Abstract of thesis presented to the Senate of Universiti Putra Malaysia in fulfilment of the requirement for the degree of Master of Science

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**September 2007**

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**Faculty : Forestry**

This study investigated the local community involvement in collaboration management of Bhawal National Park (BNP), Bangladesh. A survey was conducted from December 2006 to February 2007. A total of 215 respondents comprising the personnel of the National Park management (government staff) and local communities living surrounding park areas including people working in the park as nature tourist guides, in food supply and tourist transportation were surveyed.

The main objective of this study was to determine local community involvement in resource protection for ecotourism through a collaborative management arrangement. The survey was administered using structured interview questionnaires to obtain the respondents opinions (perceptions) by using convenience sampling technique. The questionnaire covers the perceptions regarding tourism or specifically ecotourism activities, park management problems, impacts on natural resources, relationship of the local community with the park administration including their level of

participation and their willingness to take part in collaborative management of the national park. Various statistical analysis namely Exploratory Data Analysis (EDA), descriptive statistics, Chi-square ( $\chi^2$ ) test of Independence, non-parametric test such as Mann-Whitney test and Kruskal-Wallis test, factor analysis and finally regression analysis were used to analyse the data. Principal Component Analysis (PCA) was used to develop index of key variables to be considered in measuring differences in collaborative management factors.

The study finds that the ecotourism activities are mainly carried out by the park administration. The main problems faced are shortage of manpower to manage the area, grazing, boundary conflict with the local community, land ownership conflicts with the local community (private lands in the park), illegal settlement and illegally cutting of trees. Tourism impacts such as degradation of ground cover plants, disturbances of wildlife, littering, noise and water pollution are widespread. Results of  $\chi^2$  test showed that the relationship between the local community and park administration is not significant where their participation in the management is minimal. The park usually carried out its management and decisions making process independently and the opinion of the local community is not taken into consideration in such processes.

The results of factor analysis showed that the collaborative management factors of Bhawal National Park include joint action management (JAM) (Eigen value: 1.822), shared decision making (SDM) (Eigen value: 1.608) and training and delivery of indigenous knowledge (TDIK) (Eigen value: 1.518). In further analysis, influences of respondents' demographic background on their perceptions on collaboration

management were measured using OLS regression method. The explanatory variables include age, income, education, distance of residence from the national park boundary and main occupation in addition. Results of the regression analysis showed that respondents' socio-demographic backgrounds such as income, education and occupation have significant relationships with collaborative management variables such as training and sharing of indigenous knowledge (TDIK).

The overall findings of the study provide support for the involvement of local community in national park management such as the national parks' land management, protection of national park resources, ecotourism practices and its overall development.

Abstrak tesis yang dikemukakan kepada Senat Universiti Putra Malaysia sebagai memenuhi keperluan untuk ijazah Master Sains

**PENGLIBATAN KOMUNITI SETEMPAT DALAM AKTIVITI  
EKOPELANCONGAN DAN PESEPSI MEREKA TERHADAP  
PENGURUSAN KOLABORASI DI TAMAN NEGARA BHAWAL,  
BANGLADESH**

Oleh

**ALTAF HOSSAIN SHEIKH**

**September 2007**

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**Fakulti : Perhutanan**

Kajian ini adalah mengenai penglibatan komuniti setempat dalam pengurusan ekopelancongan di Taman Negara Bhawal (BNP), Bangladesh. Satu survei telah dijalankan dari Disember 2006 hingga Februari 2007. Seramai 215 responden yang terdiri daripada kakitangan pengurusan taman negara (staf kerajaan) dan komuniti setempat di sekeliling taman termasuklah mereka yang bekerja di taman ini sebagai pemandu pelancong alam sekitar, penyedia makanan dan juga mereka yang terlibat dalam pengangkutan pelancongan telah disurvei.

Objektif utama kajian ini ialah menentukan penglibatan komuniti setempat dalam perlindungan sumber untuk ekopelancongan melalui pengaturan pengurusan. Survei ini menggunakan borang soal-selidik berstruktur untuk mendapatkan pendapat (persepsi) responden-responden melalui teknik pensampelan mudah. Soal-selidik ini meliputi persepsi terhadap pelancongan amnya dan aktiviti-aktiviti pelancongan

khasnya, masalah dalam pengurusan taman, impak pelancongan terhadap sumber alam, hubungkait antara komuniti setempat dengan pentadbiran taman, termasuk penglibatan dan kesanggupan mereka melibatkan diri dalam pengurusan usahasama taman negara. Pelbagai analisa statistik telah digunakan untuk menganalisis data, misalnya analisis tinjauan data (EDA), ujian statistik deskriptif, ujian Khi-kuasa dua ( $\chi^2$ ) untuk menguji ketidaksandaran, ujian bukan parametrik seperti ujian Mann-Whitney dan Kruskal-Wallis, analisa faktor dan akhirnya analisa regresi dijalankan. Analisa Komponen Prinsipal (PCA) telah digunakan untuk menghasilkan index untuk pembolehubah utama yang boleh diberi pertimbangan untuk mengukur ketidaksamaan dalam factor pengurusan usahasama.

Kajian ini menunjukkan aktiviti pelancongan dan ekopelancogan diuruskan sepenuhnya oleh pentadbiran taman. Masalah utama yang telah dikenalpasti adalah kekurangan tenaga manusia untuk menguruskan tempat ini, yang di gunakan juga sebagai padang ragut, konflik sempadan dengan komuniti setempat, konflik pemilikan tanah dengan komuniti setempat (terdapat tanah bermilik dalam taman), perkampungan haram dan penebangan pokok secara haram. Impak pelancongan yang didapati adalah berleluasa termasuk kehilangan tumbuhan tutup bumi, gangguan terhadap hidupan liar, sampah berselerak, kebisingan dan pencemaran air. Keputusan  $\chi^2$  menunjukkan hubungkait antara komuniti setempat dan pentadbiran taman adalah tidak ketara di mana penglibatan mereka dalam pengurusan ini adalah minima. Pengurusan taman dan proses membuat keputusan adalah dibuat oleh pihak pengurusan taman tanpa mengambil kira pendapat daripada masyarakat setempat.

Keputusan analisa faktor menunjukkan faktor-faktor pengurusan kolabratif di Taman Negera Bhawal adalah melalui pengurusan tindakan bersepadu (nilai eigen: 1.822), membuat keputusan bersama (nilai eigen: 1.608) serta latihan dan perkongsian ilmu pengetahuan tradisional (nilai eigen: 1.518). Dalam analisa selanjutnya pengaruh faktor demografik responden terhadap persepsi mereka telah diukur dengan kaedah regresi OLS. Pembolehubah pengurusan usahasama, pembolehubah-pembolehubah penjelasan ini adalah terdiri dari umur, pendapatan, tahap pendidikan, jarak tempat tinggal dari sempada taman negara dan pekerjaan utama reponden. Keputusan analisa regresi menunjukkan bahawa faktor-faktor demografik seperti umur, tahap pendidikan dan jarak, mempunyai hubungkait yang ketara dengan pembolehubah pengurusan kolabratif, seperti latihan dan perkongsian ilmu pengetahuan tradisional.

Penemuan kajian secara keseluruhannya memberi sokongan terhadap penglibatan komuniti setempat dalam pengurusan taman negara seperti pengurusan tanah taman negara, melindungi sumber dalam taman negara, pembangunan ekopelancogan dan juga pembangunan keseluruhannya.

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I certify that an Examination Committee has met on 28<sup>th</sup> September 2007 to conduct the final examination of Altaf Hossain Sheikh on his Master of Science thesis entitled “Local Community Involvement in Ecotourism Activities and their Perceptions on Collaboration Management in Bhawal National Park, Bangladesh” in accordance with Universiti Pertanian Malaysia (Higher Degree) Act 1980 and Universiti Pertanian Malaysia (Higher Degree) Regulations 1981. The Committee recommends that the student be awarded the Master of Science.

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## **DECLARATION**

I declare that the thesis is my original work except for quotations and citations which have been duly acknowledged. I also declare that it has not been previously, and is not concurrently, submitted for any other degree at Universiti Putra Malaysia or at any other institution.

---

**ALTAF HOSSAIN SHEIKH**

Date: 28 September 2007

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## LIST OF ABBREVIATIONS

ACF	Assistant Conservator of Forest
ADB	Asian Development Bank
ANOVA	Analysis of Variance
BBS	Bangladesh Bureau of Statistics
BER	Bangladesh Economic Review
BNP	Bhawal National Park
BPC	Bangladesh Parjaton Corporation (the national tourism organisation)
EDA	Exploratory Data Analysis
FAO	Food and Agriculture Organisations of the United Nations
FD	Forest Department
FSB	Forestry Statistics of Bangladesh
GDP	Gross Domestic Product
GR	Game Reserve
IUCN	International Union for Conservation of Nature
JAM	Joint Action Management
<i>khas land</i>	Land owned by the government
KMO	Kaiser-Meyer-Olkin
LDC's	Least Developed Countries
MSA	Measures of Sampling Adequacy
NGOs	Non Government Organisations
NP	National Park
OLS	Ordinary Least Square



<i>Parishad</i>	Council
PAs	Protected Areas
PCA	Principal Component Analysis
SDM	Shared Decision Making
SPSS	Statistical Package for Social Sciences
Tk.	Taka, the Bangladeshi currency (in July 2006, 1USD=Tk. 69.00)
TDIK	Training and Delivery of Indigenous Knowledge
UNCED	United Nations Conference on Environment and Development
UNEP	United Nations Environmental Programme
UNDP	United Nations Development Programme
USAID	United States Agency for International Development
WS	Wildlife Sanctuary
WSSD	World Summit on Sustainable Development
WTO	World Tourism Organisation
WTTC	World Travel and Tourism Council
WWF	World Wildlife Fund



# CHAPTER 1

## INTRODUCTION

### 1.1 Background of the Study

The concept of conservation is the wise utilisation and maintenance of the earth's resources. It involves the principles for the need to plan resource management based on accurate inventory and protective measures to ensure that resources do not become degraded. In view of rapid development and population increase in many tropical areas of the world, and the greater extent of natural resources depletion, there is considerable urgency in establishing adequate protected areas. This is to achieve the objectives in line of the World Conservation Strategy (Rahman, 2005; MacKinnon, MacKinnon and Thorsell, 1986). The establishment of protected areas is considered as the most important ways of ensuring that the world's natural resources are appropriately conserved to meet the material and cultural needs of our future generations.

Most of the natural areas in protected areas provide relatively an undisturbed environment conducive to ecotourism activities. In order to gain a sustainable economic benefit from this entity, governments promote ecotourism activities. Such protected areas include national parks, state parks, recreational forests, marine parks, and wildlife reserves and sanctuaries (Sivananthan, 2000).



Ecotourism has been identified as a form of sustainable tourism expected to contribute to both conservation and development (Tsaur, Lin and Lin, 2006). Natural resources including scenery and topography, water, flora and fauna are important component in ecotourism industry. Ecotourism has received attention where it is seen as an effective way to ensure sustainable development in the nature reserves (Royal Swedish Academy of Sciences, 2001). It is the fastest growing sector, with an estimated growth rate of 10-15% yearly and one of the largest industries in the world (Panos, 1997). In particular, the demand for ecotourism is increasing among urban people in developed and developing countries due to their increasing affluence (Scheyvens, 1999). In addition, the process of urbanisation has attracted rural people to live in urban areas.

People are likely to retreat to the natural areas to seek for pleasure in their leisure time. Many enjoy visiting the natural area periodically in order to enjoy the nature and to pert-up their emotions (Backhaus, 2000). Therefore, these consumers of remote, natural and exotic environments have created an upsurge in ecotourism ventures, particularly in developing countries (Scheyvens, 1999). For example, Malaysian society has changed alongside industrialisation where urbanisation occurred in major parts of the country. Many Malaysians have realised the needs for enjoyment in natural surroundings, which encourage them to take trips to natural areas with such settings. As such, ecotourism become a popular word among politicians, tour operators, the public and domestic or foreign visitors (Backhaus, 2000).

Since then the notion of collaboration and involvement of community in site development are increasingly being promoted and adopted in the developing countries (Reed, 1999). Community participation focuses on decision making processes and the benefits of tourism development to them (Tosun, 2000). Here, community-based approach to ecotourism recognises the need to promote both the quality of life and the conservation of resources. It is now recognised in Africa that local people should be compensated for the loss of access to resources they suffer when wildlife parks are created (Scheyvens, 1999). Similarly, the systems of conserving the landscapes that have evolved as a result of interactions between people and nature exists in all national parks in England and Wales and some in Germany and other countries in Europe (Green and Paine, 1997). In most cases, where ecotourism activities are held in protected areas, the locals who live in nearby or within the protected area should had benefited from ecotourism development. They had been participating in various business activities. As a result they had improved their livelihood when compared to their traditional practices which had later shifted to more stable and lucrative business. They are involving in ecotourism by providing recreational activities and services to the visitors, such as accommodation, transportation, food supply, tour guide, and so forth to the visitors.

A useful way to discern responsible community-based ecotourism is to approach it from a development perspective, which considers social, environmental and economic goals. In addition, questions of how ecotourism can ‘meet the needs of the host population in terms of improved living standards both in the short and long term’ should be addressed (Cater, 1993). Ecotourism can contribute economic, social, psychological and political empowerment to local communities (Scheyvens,