ASSESSING TOURISM POTENTIAL IN BHAKTAPUR DURBAR SQUARE, NEPAL

Ramesh Neupane[1*], Anup KC[2], Ramesh Raj Pant[3]

[1,3]Central Department of Environmental Science, Tribhuvan University, Nepal

[2]Amrit Science Campus, Tribhuvan University, Nepal

[*]Corresponding author: mail.ramyes@gmail.com

Abstract

Tourism is one of the most promising driver and contributor of the world economy having significant role in sustainable development, economic upliftment and social benefits. It has the potential to contribute towards environmental protection and poverty reduction. Prior to investment in tourism, concerned authorities must know the condition of respective tourist resources, their attractiveness and levels of touristic demand. Very few studies in Nepal have made an effort to quantify the tourism potential in cultural, historical and religious sites such as Bhaktapur Durbar Square. With an objective to assess the tourism potential of Bhaktapur Durbar Square using Weighted Sum Method, this study was carried out from start of June to the end of July in 2013. For this purpose, questionnaire survey with tourists, private businesses and public sector institutions; focus group discussion and key informant interview with tourism enterpreneur and local government officer was carried out. The tourism potential was found to be high with a strength of exceptionally rich cultural, historical and religious heritage, favourable geographical situation, positive image of local Newari food products and friendly and welcoming local people. The areas of weaknesses were lack of tourism infrastructures and services, lack of tourist information and weak management of tourist area. Hence, to utilise the tourism potential of Bhaktapur Durbar Square to the fullest for the economic upliftment of its inhabitants, promotional activities such as tourism fairs, festivals, cultural dances and events should be conducted at regular intervals with prompt security services.

Key Words: Bhaktapur Durbar Square, Tourism Potential, High, Cultural Heritage, Religious Tourism

Introduction

Tourism is one of the most promising drivers of growth for the world economy (UNEP, 2013). It is considered as an activity essential to the life of nations because of its direct effects on social, cultural, educational and economic sectors of national societies and international relations (WTO, 1995). The inflow of tourists not only benefit the tourism business but also the local people who can sell their agriculture and handicrafts products, local porters who could get job and small tea shops which could serve tourists (Acharya, 2010). Tourism boosts up economic activities through its multiplier effects and utilise local cultural and natural specialties (Zimmer & Grassmann, 1996). The large size and reach of the tourism sector makes it critically important from a global resource perspective. On the other hand, tourism has the potential to contribute towards environmental protection and poverty reduction. Because of the high tourism potential, many natural areas are now legally protected (UNEP, 2013).

Tourism sector plays significant role in employment generation. For local economic development, tourism benefits through employment generation play a great role (Goodwin, 1998). The expenses from travel and stay of tourist can create direct benefits in tourism related services such as accommodation, hospitality, attraction events and transportation; indirect benefits on income and employment; and induced benefits on local income and jobs (ESCAP, 2001). Data shows that one tourist employs nine persons directly and indirectly. More than 1.50 million Nepalese people are employed directly or indirectly in this sector contributing 3 percent in GDP. Also, the foreign exchange earnings during FY 2010/11 grew by Rs. 494 million reaching to Rs. 28.63 billion (MoF, 2012).

Environment and tourism play very significant role for the betterment of each other. Without proper management of environment, there is no scope of tourism while in other hand, the revenue generated from tourism assists in the proper maintenance of the environment. Therefore, environment and tourism are interrelated playing a great role for the sustainable development of the region.

Tourism potential is a widely used and accepted term in tourism domain. It sometimes creates misunderstanding of some territorial capabilities and holds a narrower domain (Mamun & Mitra, 2012). Formica, (2000) prescribed tourism potential to be replaced by attractiveness which clearly indicates the relationship between demand and supply of tourism. Constantin et al., (2009) discussed on potential of tourism in a region by minimizing imbalances of infrastructure within the entire region. He has explained a review on tourism

scenario in Romania. There is a practice to assess tourism potential and quantify all the aspects or attributes towards a single value using various tools of Multi-Criteria Decision Methods (MCDM). Iatu & Bulai, (2011) proposed a Multiple Linear Regression method to quantify tourist arrival based on 4 variables namely natural resources, cultural resources, tourism infrastructure and general infrastructure. Ion et al., (2011) proposed a scaling technique with weight values from the variables like natural potential, anthropic potential, tourism infrastructure and technical infrastructures. Ashouri & Fariyadi, (2010) proposed a cluster analysis based on Weighted Linear Combination (WLC) method with application of Principal Component Analysis (PCA). They took 15 variables to assess eco-tourism potential. Effat & Hegazy (2009) proposed a MCDM combined with various mapping layers which are suitably overlapped to obtain ranking and weighting of tourist attractions and infrastructures. Yianna & Paulicos, (2011) described application of GIS for spatial analysis to identify tourism resource inventories, location suitability, monitoring tourism impact, visitor management and assessing potential impacts. Merwe et al., (2008) analyzed nature based and man-made features in connection with tourism potential through a detail GIS mapping process.

However, very few studies in Nepal have made an effort to quantify the tourism potential in cultural, historical and religious sites. There is need of a study that explores the challenges and constrains hindering the development of the tourism sector in Bhaktapur Durbar Square and recommends the measures to exploit the tourism potential to the fullest for the sustainable development of Bhaktapur. The study will be focused on answering following research questions:

1. What are the socioeconomic characteristics of stakeholders of tourism in Bhaktapur Durbar square?
2. What is the tourism potential of Bhaktapur Durbar Square?
3. What are the areas of strength and weakness of the Bhaktapur Durbar Square in terms of tourism potential?

Study Area

Bhaktapur Durbar Square is located about 17 km east of Kathmandu. It is known as the city of devotees, city of culture, living heritage and Nepal's cultural gem. It is one of the four main Squares of Bhaktapur Tourist Area, other three being Dattatraya Square, Taumadhi Square and Pottery Square. The majestic palaces, single or multi-tiered pagoda temples, Buddhist bahas and bahis, variously shaped and sized ponds, roadside rest houses, artistically

carved community stone sprouts, bricks or stone paved squares, narrow allies; cultural fabric, costume and lifestyle of the people give the aroma of the medieval period that proved Bhaktapur to be the cultural capital of Nepal. All these symbolize the golden age of Nepalese arts and architecture. Historically and religiously important colourful festivals and feasts are still observed and practiced with the same old fervor and flavor, making Bhaktapur truly a living heritage. Because of its cultural richness and mesmerizing historical heritage sites that belongs to medieval era, tourists have been flocking towards Bhaktapur since time immemorial. Large number of tourists chooses to visit Bhaktapur to see and experience the cultural richness and wonderful heritage sites (BTDC, 2011). But it still has not been able to tap the total benefit from the tourism sector. In order to grab the maximum benefit from tourism, there is a need to develop historical infrastructure considering the local environment.
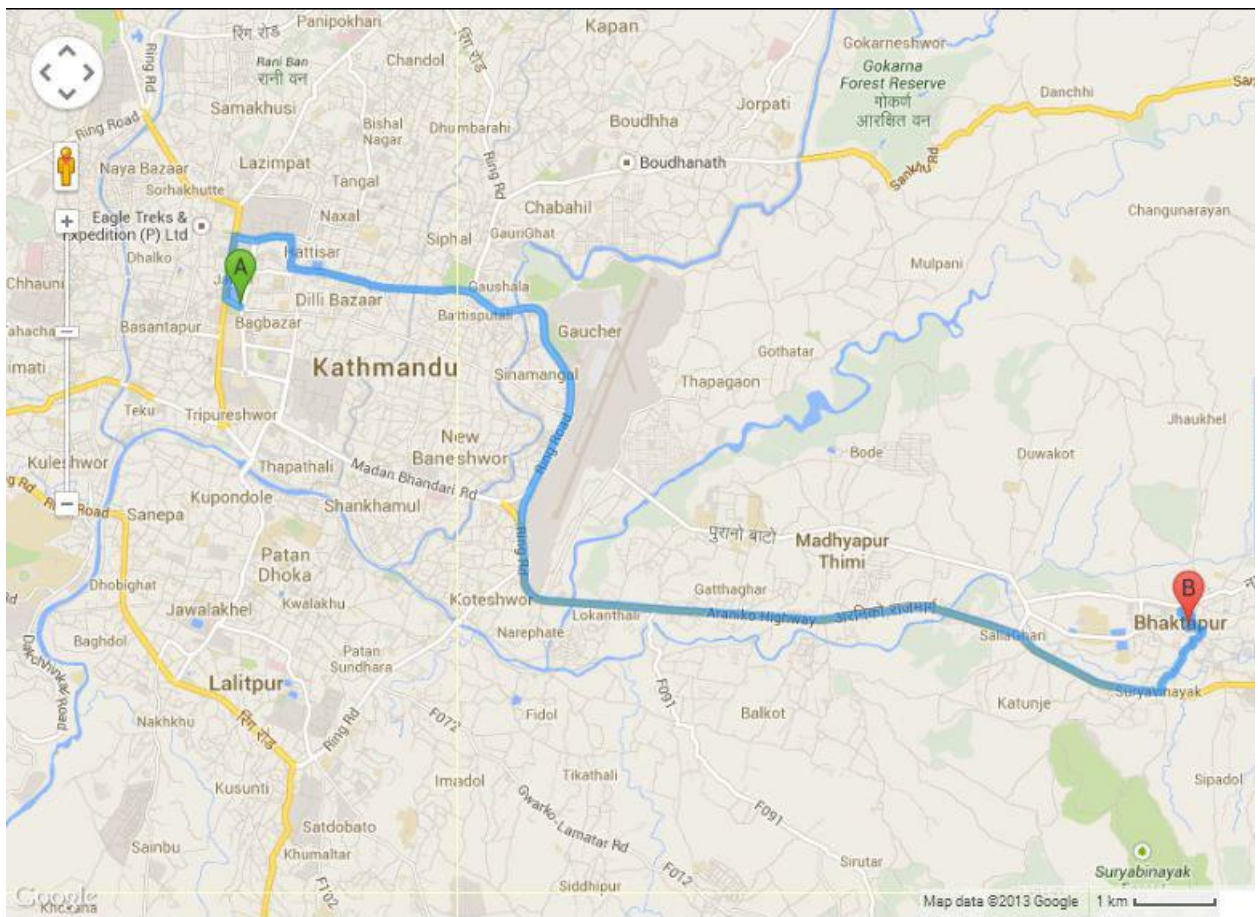
Figure-1: Map of the Study Area   (Source: Google Maps)

Methodology

For getting information about the tourism potential, purposive questionnaire survey with 70 tourists, 15 private businesses (5 handicraft shop, 3 souvenir shop, 3 restaurants, 2 food café, 1 Thanka painting shops and 1 handmade woolen clothes store) and 2 public sector

institutions (Bhaktapur Municipality and Bhaktapur Tourism Information Service Center) was conducted. One focus group discussion with tourism entrepreneur and 5 Key Informant Interviews with tourism entrepreneurs and officer of Bhaktapur Municipality were conducted for verification of collected information.

Weighted Sum Method (WSM) tool was selected among various tools of Multi-Criteria Decision Methods (MCDM) for assessing the tourism potential. Four steps as explained below were performed following the methodology of Mamun & Mitra, (2012).

Step 1: Level-1 Attributes and Weight (W_i) Assignment

Three broad aspects namely physical, socio-cultural and environmental aspects have been considered as level-1 attributes for assessing tourism potential. The assignment of weights was worked through expert opinion survey, tourist survey, service providers and interview. The weight value for a certain parameter was considered null if they are similar throughout the zone. So, three different weights are considered in the first stage (W_p for physical, W_s for socio-cultural and W_e for environmental).

Step 2: Level-2 Attributes and Weight (w_j) Assignment

Each aspect of level-1 has a set of variables considered as level-2 attributes. These sets are explained hereunder.

1) Physical (W_p) aspects include geographic terrain, regional connectivity, vehicular accessibility, bottlenecks in accessibility, versatility in accommodation system, guide and tourist information factors, local souvenirs, telecommunication systems, availability of quality and special foods, parking and other recreational facilities.

2) Socio-cultural (W_s) factors include existing tourist influx, intensity of fairs and festivals, timing to visit a spot, duration of stay, compatibility of the spot with surrounding landuse, safety and security for the visitors, probability of social crimes and behavioural aspects of the service providers.

3) Environmental (W_e) aspects are probability of natural calamity during a specific time, natural and anthropogenic threats, hazardous landuse and quality of air and water pollution. Every respondent is asked to rank the attributes (1, 2, 3 …n) for each group/set separately according to their preferences. The ranking data is arranged in matrices separately for each set in table-1.

Step 3: Intra-Attribute Scaling (s_j)

Level of quality or service for each attribute may not be similar for all the spots. Depending upon variations in quality/quantity, each attribute is scaled in a 5-point scaling. These scales are related to grades from 1-5 based on logical interpretation and quantification

of various levels. Hence, the step 1 and 2 indicates a global approach to be used for all parameters and step 3 is a local approach based on different variations set logically. For scaling, 1 refers to the worst/weakest quality and 5 indicate the best/strongest quality. For computation, the lowest value is considered as 0.20 followed by 0.40, 0.60, 0.80 and the highest being 1.

Step 4: Computation of Aggregate Potential Value

Potential value of a tourist spot is finally aggregated in an additive way. Value of W_i and w_j will range from 0-1 and s_j has 5 different values (0.20, 0.40, 0.60, 0.80 and 1.00). Lower values indicate weakness of tourism potential. The expression is as follows:

Total Potential (V) = Potential Value for Physical Aspects (V_p) + Potential Value for Socio-cultural Aspects (V_s) + Potential Value for Environmental Aspects (V_e)

Or, Total Potential (V) = $W_p*[w_1s_1 + w_2s_2 + ... +w_ns_n]$ physical + $W_s*[w_1s_1 + w_2s_2 + ... +w_ns_n]$ socio-cultural + $W_e*[w_1s_1 + w_2s_2 + ... +w_ns_n]$ environmental

Or, Potential (V) = $\sum W_i*[\sum w_js_j]$

Where,

W_i is the weight of Parameter level 1 for i^{th} attribute,

w_j is weight of parameter level 2 for j^{th} attribute

s_j is the scaling grade for j^{th} attribute of level 2

Result and Disscussion

Socio-Economic Characteristics of Respondents

Among the respondents, 41.7% were within the age range of 21-30 years including 57% female and 45% first degree holders. Most of the tourists (56%) spent less than US$1000. They enjoyed sight-seeing, walking, visiting and enjoying of cultural events and social life. Majority of the tourists (88%) agreed that the number of the tourists in a group was usually less than 10 people each time. Most of the tourists (59%) were found to go to tourist destinations in couples while few go as self and as a family. Most of the respondents (53%) chose autumn or fall season to travel in Nepal. Tourists were asked to indicate the time of the day they normally visit tourist destinations. Most of the tourists (58%) confirmed that they visit anytime of their convenience.

The people from private sector involved in tourism business were asked to indicate the length of time they have managed the business. Most of the businesses (50%) existed there for around 20 to 30 years while 24% of them were there since 10-20 years. Most of the private

sector tourism businesses (40%) were employing 1-5 persons who were mostly local handicraft and art and painting shops. The main customers of private sector business were foreign tourists. Out of the total people interviewed from private sector, businesses having the printed marketing and webpage were 60% each.

Tourism Potential

Result of Step 1

Respondents from public sectors, private sectors and tourists visiting the Bhaktapur Durbar Square suggested their ranking on physical, socio-cultural and environmental aspects as prescribed. As per opinion, weights (W_i) for physical, socio-cultural and environmental aspects had been considered as 0.40, 0.40 and 0.20, respectively.

Result of Step 2

The attributes under socio-cultural, physical and environmental aspects were selected from a list through opinion surveys. The socio-cultural aspects included four attributes in the preference order of annual tourist influx, varieties of traditional art and crafts, frequency of fairs and festivals and average duration of stay as shown in table-1.

Table 1: The value of weights for the selected attributes.

Attributes and Ranks		Weights
Socio-cultural Attributes		
Rank 1	Annual Tourist Influx	0.40 [4/10]*
Rank 2	Varieties of Traditional art and crafts	0.30 [3/10]
Rank 3	Frequency of fairs and festivals	0.20 [2/10]
Rank 4	Average Duration of Stay	0.10 [1/10]
*Cumulative value: 1+2+3+4=10		
Physical Attributes		
Rank 1	Local souvenirs	0.15 [12/78]
Rank 2	Range and availability of the accommodation	0.14 [11/78]
Rank 3	Transport infrastructure (roads, parking)	0.13 [10/78]
Rank 4	Vehicular accessibility	0.12 [9/78]
Rank 5	Food and market	0.10 [8/78]
Rank 6	Shopping options (sales network)	0.09 [7/78]
Rank 7	Tourist information and Guide services	0.08 [6/78]
Rank 8	Opportunities for entertainment and social activities	0.06 [5/78]
Rank 9	Car parking facility	0.05 [4/78]
Rank 10	Security services	0.04 [3/78]
Rank 11	Attractions for kids (playgrounds, children's park, children theatre, etc.)	0.03 [2/78]
Rank 12	Availability of Night life	0.01 [1/78]

*Cumulative value: 1+2+3+4+5+6+7+8+9+10+11+12=78		
Environmental Attributes		
Rank 1	Openness of the place	0.40 [4/10]
Rank 2	Beautiful Scenery	0.30 [3/10]
Rank 3	Site's Landscaping	0.20 [2/10]
Rank 4	Water Quality	0.10 [1/10]
*Cumulative value: 1+2+3+4=10		

Data for annual and monthly tourist influx was obtained from the Bhaktapur Municipality Tourist Service Centre, while average duration of stay was obtained from interaction with the tourists and several proxy data such as average stay in hotels and lodges. Most of the visitors preferred for day tours. Many tourist spots were associated with traditional art, craft and paintings, traditional fairs, festivals and Jatras in the Bhaktapur district which enhance the potential.

From the opinion survey of respondents, the physical aspects had been distributed over 12 parameters. The preference order was local souvenirs, range and availability of the accommodation, transport infrastructure, vehicular accessibility, food and market, shopping options, tourist information and guide services, opportunities for entertainment and social activities, car parking facility, security services, attractions for kids and availability of night life as shown in table-1.

From the opinion survey of respondents, the environmental aspects had been distributed over 4 parameters. The preference order was openness of the place, beautiful scenery, site's landscaping and water quality as shown in table 1.

Result of Step 3:

Interpretations of comparative marking of 1-5 were based on availability of services. Table 2 exhibits a sample scaling of a single parameter. A color range from black to white had been applied for 1-5 scales respectively.

Table 2: Interpretation of Scaling for a Sample Attribute

Attribute	1 (0.20)	2 (0.40)	3 (0.60)	4 (0.80)	5 (1.00)
Accessibility/ Connectivity	Narrow Road, only pedestrian, no vehicle access possible, bad road condition	Narrow Road, pedestrian and vehicle, bad condition	Moderate road, vehicle allowed, bad road condition/Narrow road vehicle allowed, good condition	Wide road, vehicle allowed and moderate road condition	Wide road vehicle allowed and good condition

Result of Step 4:

(a) Total Potential Value V_T ($\sum W_i*[\sum w_j s_j]$)= 0.40*Potential Value in Socio-cultural Aspects (V_s) + 0.40*Potential Value in Physical Aspects (V_p)+0.20*Potential Value in Environmental Aspects (V_e)

(b) Potential Value in Socio-Cultural Aspects V_S ($\sum w_j s_j$)= 0.40*Grade in Tourist Influx (S_1)+ 0.30*Grade in Varieties of Traditional Art and Crafts (S_2)) + 0.20*Grade in Intensity of Fairs and Festivals (S_3)+ 0.10*Grade in Average Duration of Stay (S_4)

(c) Potential Value in Physical Aspects V_P ($\sum w_j p_j$) = 0.15* Grade in Local souvenirs (P_1) + 0.14* Grade in Range and availability of the accommodation (P_2) +0.13* Grade in Transport Infrastructure (roads, parking) (P_3) + 0.12* Grade in Vehicular Accessibility (P_4)+ 0.10* Grade in Food and Market (P_5)+ 0.09* Grade in Shopping Options (sales network) (P_6) + 0.08* Grade in Tourist Information and Guide Services (P_7)+ 0.06* Grade in Opportunities for Entertainment and Social Activities (P_8)+ 0.05* Grade in Car Parking Facility (P_9)+0.04* Grade in Security Services (P_{10})+ 0.03* Grade in Attractions for Kids (P_{11})+ 0.01* Grade in Availability of Night Life (P_{12})

(d)Potential Value in Environmental Aspects Ve (($\sum w_j e_j$)= 0.40* Grade in Openness of the Place (E_1)+0.30* Grade in Beautiful Scenery(E_2)+0.20* Grade in Site's Landscaping(E_3)+0.10* Grade in Water Quality (E_4)

Potential value for each tourist spot is furnished in Table 3. Each cell has been colored with specific code mentioned previously. As calculated, potential values of socio-cultural (V_S), physical (V_P), environmental aspects (Ve) and total (V_T) range from 0 to 1.

The potential value for the socio-cultural aspects is quantified as 0.90 as shown in table-3. The potential value for the physical aspects is 0.69. Although the Bhaktapur Durbar Square holds the world's precious cultural monument, the lack of physical infrastructure, relatively low grade tourism services, absence of rest centers and toilets in appropriate intervals are keeping its potential behind. Other than these, free beggars and hawkers, absence of organized parking space, absence of facilities for high income groups, foreigners and researchers, absence of recreational facilities, lack of night life and street lights and lack of proper maintenance of the cultural heritage has pushed the potential value for the physical aspects of tourism downwards.

On the environmental aspects, the potential value is 0.84. The environmental aspects of Bhaktapur Durbar Square are good and there are certain areas where there is need of improvements such as sanitation and availability of safe drinking water. In overall, the tourism potential of Bhaktapur Durbar Square is quantified as 0.80.

Table 3: Potential Values for Bhaktapur Durbar Square

	Attributes	Grades	Potential values	Total Potential value
SOCIAL-CULTURAL	S1	1.00	0.90	
	S2	1.00		
	S3	0.80		
	S4	0.40		
PHYSICAL	P1	1.00	0.69	0.80
	P2	0.80		
	P3	0.80		
	P4	0.80		
	P5	0.60		
	P6	0.80		
	P7	0.40		
	P8	0.40		
	P9	0.40		
	P10	0.20		
	P11	0.20		
	P12	0.20		
ENVT'L	E1	1.00	0.84	
	E2	0.80		
	E3	0.80		
	E4	0.40		

The areas of strength of Bhaktapur Durbar Square are:

1) An exceptionally rich cultural, historical and religious heritage

2) A favorable geographical location (near to the capital city Kathmandu and other tourist destinations such as Suryavinayak temple, Nagarkot and Changu Narayan Temple)

3) A positive image of local Newari food products

4) Friendly people

The areas of weaknesses are:

1) Lack of tourism infrastructures, services and poor condition of existing ones

2) Lack of tourist information to the visitors

3) Weak management of tourist area.

Conclusion

From above outputs, it can be concluded that 41.7% tourists are within the age range of 21-30 years including 57% female and 45% first degree holders who spend less than US$1000. Most of the businesses existed there for around 20 to 30 years giving employment for average 1-5 persons. The tourism potential has been quantified as 0.80 considering the physical, social and environmental aspects of the place. The areas of strength are an exceptionally rich cultural, historical and religious heritage, favourable geographical location, positive image of local Newari food products and friendly people. The areas of weaknesses are lack of tourism infrastructures and services, lack of tourist information and weak management of tourist area. To utilise the tourism potential of Bhaktapur Durbar Square to the fullest for the economic upliftment of its inhabitants, promotional activities such as tourism fairs and festivals, cultural dances and events should be conducted at regular intervals and security services like tourist police service should be established.

Acknowledgements

References

Acharya, I. (2010). Women in Tourism Industry of Nepal. *TU Golden Jubilee Souvenir* .

Ashouri, P., & Fariyadi, S. (2010). Potential Assessment of Nature-Based Tourism Destinations Using MCA Techniques (Case Study: Lavasan-e Koochak). *Journal of Environmental Studies , 36*, 55.

BTDC, (2011). *Bhaktapur Durbar Square*, Bhaktapur Tourism Development Corporation, Bhaktapur, Kathmandu.

Constantin, M., Daniela-Luminia, C., & Mihaela, G. (2009). Tourism Potential and the Diminishing of Regional Disparities in Romania. 151-155.

Effat, H., & Hegazy, M. N. (2009). *Cartographic Modeling and Multi Criteria Evaluation for Exploring the Potentials for Tourism Development in the Suez Governorate, Egypt.*

ESCAP. (2001). Opportunities and Challenges I for Tourism Investment. *ESCAP Tourism Review* , 21.

Goodwin, H. (1998). Sustainable tourism and poverty alleviation. *A background paper for DFID/DETR workshop on Sustainable Tourism and Poverty Alleviation* .

Iatu, C., & Bulai, M. (2011). New Approach in Evaluating Tourism Attractiveness in the Region of Moldavia (Romania). *International Journal of Energy and Environment , 5* (2), 165-174.

Mamun, A. A., & Mitra, S. (2012). A Methodology for Assessing Tourism Potential: Case Study Murshidabad District, West Bengal, India. *International Journal of Scientific and Research Publications , 2* (9).

Merwe, J. V., Ferreira, S., & Niekerk, A. V. (2008). *A Spatial Gap-Analysis of Tourism Development Opportunity in The Western Cape Province.* Stellenbosch University.

MoF. (2012). *Economic Survey.* Kathmandu: Minitry of Finance.

UNEP. (2013). Retrieved 2013, from http://www.unep.org/resourceefficiency/Home/ Business / SectoralActivities/Tourism/tabid/78766/Default.aspx

Vodenska, M., & Tcholeev, I. *Spatial Analysis of The Tourism Potential in Bourgas District.*

WTO. (1995). *Collection of Tourism Expenditure Statistics.* World Tourism Organization.

Yianna, F., & Poulicos, P. (2011). *GIS Contribution for the Evaluation and Planning of Tourism: A Sustainable Tourism Perspective.*

Zimmer, P., & Grassmann, S. (1996). Evaluating A Territories Touristic Potential", LEADER seminar in Sierra de Gata. *LEADER Seminar Sierra de Gata.* Sierra de Gata.