

Residents' Views on Benefits and Costs of Ecotourism Projects: A Study of Bobiri Forest And Butterfly Sanctuary in Ghana

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Abstract Sustainability of ecotourism projects has been a subject of interest to researchers around the world. Whilst tourism researchers advocate the need for constant monitoring and evaluation of tourism impacts, studies on residents' perceptions on benefits and costs of ecotourism projects, especially in developing countries, remains under researched. This paper brings to the fore issues on residents views on the benefits and costs of ecotourism projects at Bobiri Forest and Butterfly Sanctuary in Ghana. Residents acknowledged the presence of both benefits and costs of ecotourism development. However, it was revealed that residents were much interested in the socio-economic and socio-cultural benefits of tourism. The study suggests that socio-demographic characteristics, native status, place of residence and length of stay influence residents' perceptions of tourism. Statistically a significant difference was found between place of residence and economic, socio-cultural and environmental impacts of tourism. It was concluded that for the goal of ecotourism development to be achieved, there is the need for residents' views on the project to be considered and thereby involving residents in ecotourism development. The study recommends that a longitudinal study should be conducted on the impacts of tourism in the area and community participation must be wholly encouraged.

Keywords: Ecotourism, Impacts of Tourism, Community Involvement, Sustainability, Residents

INTRODUCTION

Ecotourism is a growing phenomenon in the element of international tourism product, as it focuses on ecology, older cultures and ways of life (Buckley, 2004; Fennell, 2002). According to Blamey (2001), growing interest in ecotourism emanates from the adverse effects associated with mass tourism and concerns around environmental and ecological sustainability. The benefit derived from ecotourism includes revenue generation, job opportunities, community development, and impetus for conservation (Holladay & Ormby, 2012; Cooper, Fletcher, Fyall, Gilbert & Wanhill, 2008; Alexander, 2000). For this reason, many communities have seen ecotourism as a promising opportunity of “integrating natural resource conservation,

local income generation and cultural conservation in the developing world” (Andriotis, 2003; Andereck & Vogt, 2000). In addition ecotourism project is a framework designed to encourage local community empowerment and at the same time acts as a developmental tool (Nelson, 2004). Among the popular international destinations for ecotourism include Kenya, Guatemala, Palau, Indonesia, South Africa, and Costa Rica. Kenya for example owes its growth as an ecotourism destination due to the abundance of fauna (animals like elephant, lion, Buffalo, and many more) and involvement of local residents in support of the project.

In the Ghanaian setting various ecotourism projects such as Tafi Atome Monkey Sanctuary in the Volta Region, Adjeikrom Cocoa Tours in the Eastern region, Bobiri Forest

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and Butterfly Sanctuary (BFBS) have all been established in 'sensitive locations in rural areas' with the aim of 'creating opportunities for rural communities to earn income through conservation of local ecosystems and culture' (Nature & Conservation Research Centre, 2008). The aim of the establishment of BFBS is to produce forest products, conserve the environment as well as, enhance the economic and socio-cultural well-being of the people (Forestry Research Institute of Ghana (FORIG), 2012).

Residents are vital stakeholders for the sustainability of ecotourism projects. Therefore, unearthing residents' perception of the impacts of ecotourism projects is critical for its survival. Andereck and Vogt (2000) argue that residents' support for ecotourism development if omitted is likely to hinder the success of a sustainable ecotourism industry in a community. Several empirical studies have also echoed that the key to sustaining tourism projects is through community involvement (Campbell, 1999; Tosun, 2006; Sebele, 2010; Akyeampong, 2011). Moreover others authors like (Honey, 2008; Ross & Wall, 1999) also argued that the theoretical benefits supposed to be derived from ecotourism do not reflect in the actual host destination. For this reason some have adhere to the issue that ecotourism leaves both positive and negative impacts and must be carefully assessed in order to maintain the project. Despite increasing research on residents' perceptions of tourism development (Kayat, Nurhanzi, Mohd, & Pranom, 2013; Mensah & Adofo, 2013; Akyeampong, 2011; Amuquandoh, 2006), there appear to be limited research on residents' perceptions of the cost-benefit associated with ecotourism projects in developing African destinations. A more critical observation is the fact that empirical studies in the Ghanaian context have overlooked BFBS as it is the only butterfly sanctuary in Ghana located in a forest zone serving as a tourist center as well as a scientific research center. The forest is also located close to the city of Kumasi and residents depend on the forest for their day to day upkeep. With ecotourism becoming a growing segment in the tourism industry, the question arises how residents perceive the cost-benefits of ecotourism projects? Consequently, this paper seeks to assess the impacts of ecotourism development from residents' perspective. From both managerial and policy perspectives, the study has useful contributions to curb the negative impacts of ecotourism while maximizing the positive impacts and also integrating the perceptions of host communities in order to ensure the sustainability of the project.

LITERATURE REVIEW

Generally, ecotourism is a nature based travel which have low-impact, educates and ecologically and culturally sensitive to the benefits local communities and host countries (Honey, 2008). In addition, Sebele (2010) maintain that the

components for the definition of ecotourism must include; nature-based, preservation and conservation, education, culture, benefits, and ethics. The study defines ecotourism as an alternative form of tourism focused on conservation, sustainability, education, and culture and improving the living conditions of host communities. Studies suggest that each of the impact of tourism comes with benefit (positive) and cost (negative) and, sometimes, residents' perceptions are contradictory (Cooper et al., 2008; Kayat et al., 2013).

Ecotourism in Ghana

The tourism industry is one of the most significant and forceful sectors in the Ghanaian economy. Tourism is the fourth (4th) foreign exchange earner after gold, cocoa and oil (Dogbevi, 2017). The sector contributed an estimate of \$2.1billion to the country's Gross Domestic Product (GDP) (Dogbevi, 2017). In addition, tourism does not only contribute to foreign exchange but also has led to overall development in the cities and hinterlands. In order to ensure the sustainability of tourism resources, alternative form of tourism like ecotourism has been considered. Ecotourism evolved during the last quarter of the 20th century with less negative impacts compared to mass tourism. Although, Ecotourism was developed under the new paradigm of tourism it has become one of the fastest growing sector with an annual contribution ranging from 10% to 30% (Netherlands Development Organization - Ghana, 2004, Nelson, 2004; Muganda, 2013). In Ghana, both government and non-government agencies have collaborated together to establish fourteen (14) community-based ecotourism projects (CBEP). Notable among them is the collaboration between Nature Conservation Research Centre (NCRC), United States Peace Corps – Ghana, Ghana Tourism Authority (GTA), Netherlands Development Organization (Ghana), and selected communities with funding assistance from United States Agency for International Development (USAID) in 1996 and later CBEP II in 2005. These CBEP include Bobiri Forest and Butterfly Sanctuary, Tafi Atome Monkey Sanctuary, Boabeng Fiema Monkey Sanctuary and others. The idea behind the CBEP was to develop environmentally and culturally sensitive locations in rural Ghana as tourism destinations in order to create opportunities for rural communities to earn income through the conservation of local ecosystems and culture (Netherlands Development Organization - Ghana, 2004). The main objectives set to achieve the proposed idea were to:

- Improve ecotourism facilities and technical support at 14 community-based ecotourism destinations.
- Improve marketing for 14 community-based ecotourism destinations and for the country at large.
- Enhance organizational development and improve human resource capacity at the 14 community-based destinations, GTA and NCRC.

Benefits of Ecotourism Development

Impact of ecotourism has been grouped under three main sections namely: Economic, Environmental and Socio-Economic impacts. Environmental conservation, local employment creation, income/revenue generation, infrastructural development and sustainable development promotion are all benefits of ecotourism development (Honey, 2008; Cooper et al., 2008). Moreover, some researchers have acknowledged that expansion in tourism in host communities has led to increase trading which have opened up the areas for a variety of local businesses development (McGehee & Andereck, 2004). According to Sebastian and Rajagopalan (2009) more than half of residents in Kumily, India associated perceived ecotourism to improve the living standards of their community.

Costs of Ecotourism Development

Ecotourism projects are sensitive in nature due to the natural and cultural resources it seeks to protect negative impacts can occur if not properly managed (Stronza & Godilo, 2008). Increase in social vices, environmental degradation, leakages, crime and others reflect the negative impacts associated with ecotourism development. Page, Brunt, Busby & Connell (2000) pointed out loss of natural habitat of animals and its consequences on wildlife, pollution, overcrowding, and traffic congestion as some of the negative environmental costs of ecotourism. A study conducted by Huang (2008) in the Tianmushan area of China, revealed that the influx of tourists to this protected area for over a period of 10 years has led to trail widening and excessive root exposure along the trails causing vegetation damage.

Factors that Influence Residents' Perceptions on the Benefits and Cost of Ecotourism

Studies conducted, in the past decades, indicate that there are a number of variables which influence residents' perceptions toward tourism development (Ap, 1992; Kayat et al., 2013). Among the dominant factors which influence residents perceptions are background characteristics/socio-demographics (Perdue, Long & Allen, 1990; Teye, Sonmez & Sirakaya, 2002), community attachment (Gursoy & Rutherford, 2004) and economic role of tourism (Perdue et al., 1990; Gursoy & Rutherford, 2004). Similarly, the subjective view of locals has been seen to be influenced by several intervening factors such as length of residence, economic dependency, rate of community growth, proximity, perceived outdoor recreation, etc. (Lankford & Howard, 1994). On the other hand researchers have argued

that proximity to an attraction has an influence on residents' (Kayat et al., 2013). A study conducted by Amuquandoh, (2009) indicated that residents' perceptions are influenced by socio-demographic factors.

THEORETICAL FRAMEWORK

A number of theories have been put forward in explaining residents' perceptions toward tourism development. Notable among them are Doxey's Irridex Model (1975) which posits that residents attitudes often pass through four stages as tourist numbers increase at a destination. Residents move from the phase of euphoria to apathy, irritation and antagonism. Butler (1980) critiques this model and argues that residents' progress from a lower stage to a higher stage but the model fails to indicate whether a resident's attitude can move from a higher stage to a lower stage. Again, he argues that the model assumes that residents are homogenous in nature. Pearce, Moscardo and Ross (1996) also argue that the model does not stipulate how long residents' attitude can grow from one stage to the other. Social Representation Theory (SRT) looks at how and what people think about in their daily experiences and how a wider social reality influences these thoughts (Pearce et al., 1996). This theory has been criticized as not constituting a truly social approach (Harre, 1984), it also has an issue of consensus or sharedness of social representations (Mckinlay & Potter, 1987). Mckinlay and Potter (1987) argue that the SRT is ubiquitous and confusing to interpret.

Given that residents often engage in tourism development due to the benefits associated with the project, Social Exchange Theory (SET) was deemed suitable for this study. SET argues that all human relationships are formed by the use of a subjective cost-benefit analysis and the comparison of alternatives (Homans, 1961). For instance, when a person perceives the costs of a relationship as outweighing the perceived benefits, then the theory predicts that the person will choose to leave the relationship. In a study of rural resident perceptions of tourism impacts of development in Colorado, host support for additional development was positively or negatively related to the perceived positive or negative impacts of tourism (Perdue et al., 1990). Other research used a social exchange process model as a theoretical basis for some understanding of why residents perceive tourism impacts positively or negatively (Tosun, 2000; Amuquandoh, 2009).

The theory is flexible which explains both the benefits (positive) tourism creates as well as costs (negative) it generates to host communities in tourism development areas. The theory can also examine the relationships at the individual and collective levels (Amuquandoh, 2006). The theory also allows for the inclusion of a large set of variables such as environmental, economic and socio-cultural as well

as determinants influencing perception. This aids in reducing lapses such as omitted variable bias which affects reliability and validity of the outcome of the study (Amuquandoh, 2006; Andriotis, 2005). This model was selected based on the inherent nature of research which is based upon the concept of the exchange relation where a resident is more likely to be inclined towards and supportive of tourism development if he/she perceives more favourable impacts (benefits) than negative impacts (costs) from tourism development (Ap, 1992).

RESEARCH METHODS

Study Area

The study was conducted at Bobiri Forest and Butterfly Sanctuary and its surrounding communities in the Ashanti Region of Ghana. The sanctuary was established in 1939 but became a tourist reserve in 1997. This attraction is surrounded by six (6) communities namely: Krofofrom, Kubease, Nobewam, Duampompo, Nkwankwadum and Tsteteseakasum. The Forest is rich in biodiversity with about 80-100 plant species per acre, 120 bird species and about 340 butterfly species identified. BFBS is cherished by residents as it provides them with forest products like timber, snails and others. The dominant primary activity of the inhabitants of Bobiri is farming mainly due to their location in the forest belt. Agriculture, animal husbandry and lumbering are the mainstay of these rural economies, employing majority of the people (Ghana Statistical Service, 2003).

The target population for the study was household heads or their representatives. For this study a household is conceptualized as a person or group of persons, related or unrelated who live together in the same house or compound, share the same housekeeping arrangement and are catered for as one unit (Ghana Statistical Service, 2000). Household heads were selected because there were assumed to be in a better position to have stayed long enough with the project in order to give an insight on the project. Using a multistage sampling approach, 800 respondents were selected from three communities namely Kubease, Nobewam and Krofofrom. Kubease was purposively selected as it represents the major entrance to the forest whilst Nobewam and Krofofrom were randomly selected. The survey was conducted between the periods of January and March, 2014. Proportional allocation was employed to spread the sample size among the selected communities. Afterwards systematic sampling was used to draw household heads at every third (3rd) interval upon arrival. Respondents who declined to respond to the survey were replaced before the next count. Although 800 interview schedules were administered 740 were found useful for further analysis (93% response rate). The multi-stage sampling technique was used because of its

advantage of presenting all sub groupings that exist in the study population.

An interview schedule was employed in the study and consisted of three (3) main sections which were both closed and open-ended questions. The first section addressed residents' attachment to their community and length of residence. This was vital as previous studies have found that these determinants influence residents' perceptions (Lankford & Howard, 1994; Gursory & Rutherford, 2004). The second section consisted of a 3-point Likert scale of thirty-four (34) variables which was used to assess residents' perceptions of tourism in the BFBS project. The scale was guided by works of Amuquandoh (2006), Ap (1992) and Perdue et al (1990). The last section focused on the background characteristics of respondents such as age, sex and religion.

The Statistical Product and Service Solution (SPSS), version twenty (20) was used to analyze the data. Factor analysis (FA) was used to identify the major factors of tourism impacts while T-test and one way analysis of variance (ANOVA) were used to compare the mean responses of respondents on issues of the benefits and costs of tourism in terms of residents' background characteristics.

RESULTS AND DISCUSSION

Out of the 740 respondents who were surveyed, more than half (60.5%) of the respondents resided in Nobewam, this was followed by Kubease (30.9%) while 8.6% stayed at Krofofrom. A little over a half (50.8%) of the respondents identified themselves as males, with 74.6% married. With regard to age, majority (39.5%) were between 31 and 50, followed by 51+ age (36.2%) category with below age 30 having the least (24.3%). On educational status, about 35.1% of the respondents had acquired middle/JHS certificate and the least was tertiary education (3.8%). Furthermore, more than two-thirds (81.1%) of the respondents were indigenes whereas 18.9% were non-indigenes. With regards to length of stay, majority (43.8%) had stayed for more than thirty-one (31) years, 34.6% stayed between 11-30 years and less than a quarter (21.6%) stayed for less than 10 years. About 90.8% of the respondents profess Christianity.

Perceived Impacts of Tourism

In ensuring a robust analysis, data from the field were subjected to factor analysis (FA). In testing for the suitability of the data for the analysis, a number of statistical measures were considered. A principal component factor analysis with varimax rotation of the 34 impact items was conducted to determine residents' perception of the impact of tourism. Overall, five factors emerged from the PCA varimax rotation factor analysis. All five factors together explained about 52

per cent of the total variance ($KMO = 0.80$). These were socio-economic benefits, socio-cultural benefits, socio-cultural cost, economic cost and environmental benefits.

As depicted in Table 1, the results indicate that five factors: socio-economic benefit (19.99%; $\alpha = 0.81$), socio-cultural benefit (14.3%; $\alpha = 0.83$), socio-cultural cost (8.86%; $\alpha = 0.74$), economic cost (4.74%; $\alpha = 0.78$) and environmental benefit (4.56%; $\alpha = 0.75$) were factors that influenced perceived impacts of tourism. These factors together explained 52% of the total variance.

The first factor labelled 'socio-economic benefit' consisted of nine (9) items: 'increased investment', 'employment opportunities', 'improved standard of living', 'increased business', 'improved sanitation', 'promotion of local economy', 'improved social amenities', 'increased transportation', 'improvement in the image of the community'. The factor accounted for 19.99% of perceived impacts.

With an eigen value of 5.59, Factor 2, labelled as 'socio-cultural benefit' explained 14.3% of the perceived impacts of

tourism. This factor had eight variables namely; 'promotion of interaction', 'cultural appreciation', 'diversification of recreational activities', 'preservation of culture', 'increase in demand for cultural exhibition', 'learning experience', 'strengthen family ties', and 'improvement in the image'

The third factor, 'socio-cultural cost' comprised six items: 'drugs and alcoholism', 'increased prostitution', 'increased crime', 'conflicts on land use', 'destruction of culture', and 'rural-urban migration'. Socio-cultural cost had an eigen value of 3.45, accounting for 8.86% of perceived impacts of tourism

Factor 4 had four items and considered issues such as 'increased land prices', 'increased rent', 'high cost of living' and lastly, 'leakages'. This factor was labelled 'economic cost' and contributed 4.74% of the total variance explained

The last factor was 'environmental benefits'. This factor looked at items such as 'conservation of environment', 'environmental awareness', 'learning experience', and 'collapse of local enterprise'. Factor five contributed 4.56% of the total variance explained.

Table 1: Factors Analysis on Respondents' Perceptions on the Impacts of Tourism

Variables	Factor loadings	Eigen value	% of variance	Cronbach's alpha
F 1: Socio-economic benefit				
Increased investment	0.84	7.80	19.99	0.81
Employment opportunities	0.72			
Improved standard of living	0.70			
Increased business	0.67			
Improved sanitation	0.61			
Promotion of local economy	0.60			
Improved social amenities	0.57			
Increased in transportation	0.55			
Improvement in the image of community	0.47			
F2: Socio-cultural benefit		5.59	14.33	0.83
Promotion of interaction	0.79			
Cultural Appreciation	0.75			
Diversification of recreational activities	0.71			
Preservation of culture	0.67			
Increased in demand for cultural exhibition	0.62			
Learning Experience	0.62			
Strengthen family ties	0.61			
Improvement in the image	0.51			
F3: Socio-cultural cost				
Drugs and alcoholism	0.88	3.45	8.86	0.74
Increased Prostitution	0.86			

Variables	Factor loadings	Eigen value	% of variance	Cronbach's alpha
Increased crime	0.69			
Conflicts on land use	0.67			
Destruction of culture	0.53			
Rural-urban migration	0.52			
F4: Economic cost				
Increase land prices	0.88	1.85	4.74	0.78
Increased rents	0.83			
High cost of living	0.66			
Leakages	0.53			
F5: Environmental benefits	0.75	1.77	4.56	0.75
Conservation of environment	0.65			
Environmental awareness	0.51			
Learning Experience	0.50			
Collapse of local enterprise				
Total variance explained			52.47	

Benefits and Costs of Tourism Impacts

Both T-test and One-way analysis (ANOVA) results employed to determine whether significant differences exist in the perceived benefits and costs of tourism in terms of respondents background characteristics.

Table 2 presents respondents perceptions on the socio-cultural impacts of tourism. Independent samples

t-test (T-test) statistics was employed on background characteristics measured along a dichotomous scale. These included native status (1 = Indigene, 2 = Non-indigene), sex (1 = Male, 2 = Female) and marital status (1 = married, 2 = unmarried) whereas the one-way analysis of variance (ANOVA) was employed on three or more independent variables. These were place of residence, age, educational level and household size.

Table 2: Respondents' Views on the Socio-Cultural Impacts of Tourism by Background Characteristics

socio-demographics	Benefits of tourism			Cost of tourism		
	N	Mean	Test Statistic (P-value)	N	Mean	Test Statistic (P-value)
Place of residence						
Kubease	228	1.86*	47.25 (0.000*)	228	2.65	8.76 (0.000*)
Nobewam	448	2.21		448	2.52*	
Krofofrom	64	2.51*		64	2.70*	
Native status						
Indigene	600	2.18	4.744 (0.000*)	600	2.56	-1.336 (0.182)
Non-indigene	140	1.91		140	2.62	
Sex						
Male	376	2.15	1.011 (0.312)	376	2.51	-3.637 (0.000*)
Female	364	2.10		364	2.64	
Age						
<30	180	2.11	0.971 (0.379)	180	2.53*	3.082 (0.046*)

socio-demographics	Benefits of tourism			Cost of tourism		
	N	Mean	Test Statistic (P-value)	N	Mean	Test Statistic (P-value)
31 – 50	292	2.11		292	2.63*	
>51	268	2.17		268	2.55	
Marital status						
Married	552	2.14	0.658 (0.511)	552	2.59	1.649 (0.100)
Unmarried	188	2.10		188	2.53	
Educational level						
Tertiary	28	1.95*	7.219 (0.000*)	28	2.69	1.939 (0.102)
Senior High	144	1.95		144	2.60	
Junior High	260	2.24*		260	2.53	
Primary	160	2.06		160	2.53	
Illiterate	148	2.22		148	2.63	
Household size						
<10	460	2.23*	22.88 (0.000*)	460	2.63*	20.812 (0.000*)
11 – 30	228	2.03		228	2.53	
>31	52	1.70*		52	2.23*	

Significance level = 0.05

Scale: 1- 1.49 = Agree, 1.5 – 2.49 = Neutral, 2.50 – 3.00 = Disagree.

The independent samples t-test results indicate that there were significant difference in the mean scores of the perceived socio-cultural benefits and costs of tourism with regard to native status. With regard to native status both indigene (mean = 2.18) and non-indigene (mean = 1.91) remained neutral on the perceived socio-cultural benefits of tourism.

The one-way analysis of variance indicated significant differences in the perceived socio-cultural benefits of tourism with regard to place of residence, education and household size. On the issue of place of residence, respondents were confident that tourism development comes with some socio-cultural benefits and costs. Whereas respondents from

Nobewam (mean = 2.21) and Kubease (mean = 1.86) were divided on the benefits, the residents of Krofofrom (mean = 2.51) disagreed to the socio-cultural benefits of tourism.

On the contrary, the one-way analysis of variance indicated a significant difference in the perceived socio-cultural costs of tourism with regard to place of residence, age and household size. With regard to age, all respondents were in disagreement with the socio-cultural cost of tourism. Respondents between the ages of 31 and 50 were in higher disagreement (mean= 2.63), followed by above 51 years (mean= 2.55) and the least was less than 30 years (mean = 2.53).

Table 3: Respondents' Perceptions About Economic Impacts of Tourism by Background Characteristics

socio-demographics	Benefits of tourism			Cost of tourism		
	N	Mean	Test Statistic (P-value)	N	Mean	Test Statistic (P-value)
Place of residence						
Kubease	228	2.27*	75.19 (0.000*)	228	1.87*	37.57 (0.000*)
Nobewam	448	2.71		448	2.16	
Krofofrom	64	2.88*		64	2.33*	
Native status						

Benefits of tourism				Cost of tourism		
socio-demographics	N	Mean	Test Statistic (P-value)	N	Mean	Test Statistic (P-value)
Indigene	600	2.61	2.472 (0.14)	600	2.08	-.695 (0.488)
Non-indigene	140	2.49		140	2.11	
Sex						
Male	376	2.67	3.920 (0.000*)	376	2.05	-1.89 (0.059)
Female	364	2.51		364	2.12	
Age						
<30	180	2.54*	3.103 (0.046*)	180	2.18*	5.416 (0.005*)
31 – 50	292	2.56		292	2.08	
>51	268	2.66*		268	2.02*	
Marital status						
Married	552	2.61	1.786 (0.075)	552	2.08	-.276 (0.783)
Unmarried	188	2.53		188	2.09	
Educational level						
Tertiary	28	2.40*	5.574 (0.000*)	28	2.30*	3.556 (0.007*)
Senior High	144	2.43		144	1.99*	
Junior High	260	2.63		260	2.08	
Primary	160	2.63		160	2.15	
Illiterate	148	2.67*		148	2.06	
Household size						
<10	460	2.62	1.989 (0.138)	460	2.16*	29.624 (0.000*)
11 – 30	228	2.53		228	2.02	
>31	52	2.61		52	1.64*	

Source: Fieldwork, 2014

Scale: 1- 1.49 = Agree, 1.5 – 2.49 = Neutral, 2.50 – 3.00 = Disagree.

Table 3 presents ANOVA and T-test analysis on respondents perceptions on the economic impacts of tourism. The T-test analysis employed indicated a significant difference in the mean scores of respondents perceptions on the economic benefits and sex. In terms of distribution, males (mean = 2.67) were in disagreement to the economic benefits whereas females (mean = 2.51) were less likely to disagree to the economic benefits.

The ANOVA test revealed significant difference in the mean scores on economic benefits and cost of tourism with regards to place of residence, age and education. On a whole, under place of residence whiles respondents from Krofofrom (mean = 2.88) and Nobewam (mean = 2.71) were in higher disagreement to the economic benefits, respondents from Kubease (mean = 2.27) remained uncertain.

From Table 4, the one-way analysis of variance indicated significant differences in the perceived environmental benefits of tourism with regard to place of residence, age, education and household size. On the issue of place of residence, respondents were confident of the environmental benefits obtained from tourism. Respondents from Kubease (mean = 1.41) were in agreement whiles Nobewam (mean = 1.80) and Krofofrom (mean = 1.59) were uncertain about the environmental benefits of tourism. On the other hand, respondents from the three communities were in disagreement to the environmental cost of tourism. In terms of distribution, Krofofrom (mean = 2.92), followed by Kubease (mean = 2.63) and least Nobewam (mean = 2.54). The T-test analysis revealed a significant difference

in the mean scores of respondents perceived environmental benefits and native status. On the issue of native status, both indigenes (mean = 1.71) and non-indigenes (mean = 1.55) were uncertain about the environmental benefits of tourism.

Table 4: Respondents' Perceptions About Environmental Impacts of Tourism by Background Characteristics

socio-demographics	Benefits of tourism			Cost of tourism		
	N	Mean	Test Statistic (P-value)	N	Mean	Test Statistic (P-value)
Place of residence						
Kubease	228	1.41*	39.59 (0.000*)	228	2.63	15.10 (0.000*)
Nobewam	448	1.80*		448	2.54*	
Krofofrom	64	1.59		64	2.92*	
Native status						
Indigene	600	1.71*	3.518 (0.000*)	600	2.66	-1.265 (0.206)
Non-indigene	140	1.55*		140	2.70	
Sex						
Male	376	1.69	0.484 (0.628)	376	2.68	0.830 (0.407)
Female	364	1.67		364	2.66	
Age						
<30	180	1.73*	4.450 (0.012*)	180	2.71*	3.049 (0.048*)
31 – 50	292	1.72		292	2.68	
>51	268	1.61*		268	2.62*	
Marital status						
Married	552	1.68	-.049 (0.961)	552	2.67	-.052 (0.959)
Unmarried	188	1.68		188	2.67	
Educational level						
Tertiary	28	1.71	6.975 (0.000*)	28	2.64	1.895 (0.109)
Senior High	144	1.55		144	1.59	
Junior High	260	1.78		260	2.69	
Primary	160	1.60		160	2.70	
Illiterate	148	1.70		148	2.68	
Household size						
<10	460	1.78*	1.989 (0.000*)	460	2.71*	9.594 (0.000*)
11 – 30	228	1.53		228	2.62	
>31	52	1.49*		52	2.50*	

Source: Fieldwork, 2014

Scale: 1- 1.49 = Agree, 1.5 – 2.49 = Neutral, 2.50 – 3.00 = Disagree.

Significance level = 0.05

DISCUSSION

Ecotourism is cited as a form of tourism with higher benefits to the host communities. As per respondents' profile,

majority of the respondents were indigenes compared to the non-indigenes. The results of the current study revealed that indigenes view tourism development as a beneficial project. The findings affirm works done by (Afenyo, 2012;

Akyeampong, 2011 & Amuquandoh, 2007) that indigenes are more likely to support tourism due to its benefits. This implies that the communities are less populated with foreigners and indigenes have the opportunity to work in their own land. This is evident in developing countries where rural areas lack basic social amenities to enhance living standards.

Residents' view towards ecotourism development in BFBS is in consonance with the Social Exchange Theory. In effect residents are engaged in tourism development hoping to reap benefits. Among the explanations given by residents for engaging in tourism development reflect similar thinking that residents are into tourism with the motives of satisfying their needs which could be categorized under economic, socio-cultural and environmental impacts. According to the SET residents initiate an exchange process with the notion of satisfying their individual and collective needs. They evaluate the transaction and consider the outcome as either positive or negative evaluation. The outcome of this process will influence their behaviour as to continue or withdraw their support for tourism development. On this factor, residents of the study area have material needs and wants they wish to achieve from the ecotourism project. For most of the residents tourism must satisfy these needs.

Findings revealed in Table 1 reflect that residents recognized that tourism development comes with both positive and negative impacts. Generally, five main factors emerged as the major components accounting for residents' views of ecotourism. They contributed about 52% to the total variance explained. Out these, socio-economic benefit was the top most factor. To them tourism development is considered as a viable venture for increase in investment which will in effect create jobs for the masses. Earlier researchers such as (Kayat et al., 2013; Cooper et al., 2008; McGehee & Andereck, 2004) have linked these findings to the fact that most host communities see tourism as an economic tool. Although environmental benefit was the least factor it is imperative to note that respondents were much delighted that tourism has aided in environmental conservation. This confirms findings by (Amuquandoh, 2009; Kayat, 2002; Afenyo, 2012) that tourism is a tool for conservation. The overall results from the Factor Analysis were directed to the benefits of tourism than the costs. Respondents laid emphasis on the economic and socio-cultural benefits of tourism. A possible reason could be that tourism development is seen as a tool to alleviate poverty. Hence forth, residents think of tourism in terms of socio-cultural impacts, economic impacts like job creation and taxes for growth.

The significant difference observed between respondents place of residents, sex, age, level of education, household size and impacts of tourism. The findings confirm the notion that socio-demographic variables exert great influence on residents perceptions and attitudes towards tourism projects (Teye et al., 2002; Akyeampong, 2011; Kayat et al., 2013).

With the exception of native status all the other socio-demographic variables had an influence on residents' perceptions and attitudes towards tourism development. On the contrary the study revealed a significant difference between native status and environmental benefits of tourism. Under native status, it was revealed that non-indigenes were uncertain to the environmental benefits than the indigenes that were in disagreement. Respondents' uncertainty about the benefits of tourism may be attributed to their native status and length of stay, since about 80 per cent of the respondents were indigenes and had stayed for over 10 years. The non-indigenes are new settlers and may see tourism as a new venture which can bring development into their communities.

The significant difference observed between place of residence and the impacts of tourism confirms works by (Mansfeld, 1992; Kayat et al., 2013) who identified distance to influence residents' perceptions of tourism development. A possible indicator for this variation could be that Kubease is closer to the forest whilst Krofofrom is at the outskirts of the forest. This affirms Mansfeld (1992) assertion that residents closer to tourists centers are more likely to agree to the positive impacts. Hence, respondents of Krofofrom consider tourism as a cost since they were far from the project. The results suggest that in developing countries like Ghana, socio-demographic features are important elements to consider when dealing with host communities perceptions and attitudes towards tourism development (Amuquandoh, 2007).

CONCLUSION

The study was conducted to assess residents' views of ecotourism in BFBS. It is evident that respondents acknowledge both benefit and cost of tourism development. Respondents perceived that tourism development will increase investment opportunities; create employment and aids in environmental conservation. With regards to the impacts of tourism, respondents were more inclined to the socio-economic and environmental benefits. It was realized that place of residence, native status, sex, educational status and household size play a vital role in influencing residents' views on tourism development. The study revealed that in terms of infrastructure not much has been developed. As residents have inadequate water, electricity, schools, roads, market centers and clinics. This affirms the SET's assumption that local residents evaluate tourism development as a social exchange and hence were willing to engage in it in order for their needs to be addressed and their community's wellbeing improved (Ap, 1992). Despite these negatives residents are still hopeful that tourism development will bring development in the communities. It is recommended that further studies using a longitudinal design to assess

the impacts of tourism using community based ecotourism projects as a case study and community participation must be encouraged. Again the principles guiding ecotourism should be applied in order for residents to benefit massively from the project. If this is practice there will be community development and tourism development shall be sustained.

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