Towards sustainable ecotourism development in Ghana: Contributions of the local communities

Abstract
The study, which focused on Bobiri Forest Reserve and Butterfly Sanctuary in Ghana, sought to identify the challenges that the local communities face in contributing to the sustainability of the Sanctuary, to categorise the benefits that the local communities derive from ecotourism, and to evaluate the local involvement toward the sustainability of the Sanctuary. A mixed-methodological approach was employed in the data collection and analysis. Semi-structured questionnaires were administered to 387 respondents, selected from the six surrounding communities, at the study site. The study also purposively selected and interviewed some key informants. The study revealed that the local communities did not contribute much to the sustainability of the Sanctuary. At the time of the study, the national government received most of its economic benefits at the expense of the local communities. The study recommends the involvement of the neighbouring communities in the development of ecotourism in the Sanctuary, as well as the introduction of structures that help to ensure equitable distribution of the economic benefits accruing from ecotourism.

Key words: ecotourism; sustainability; local communities; Ghana

1. Introduction
Many scholars argue that ecotourism appears to meet the majority of the targets established in the definition of sustainable tourism since it constitutes a tool both for the social empowerment, and for the long-term economic development, of the local communities (Weaver & Lawton, 2007; Fennell, 2014; Carić, 2018; Ramón-Hidalgo, Kozak, Harshaw, & Tindall, 2018; Graci, Maher, Peterson, Hardy, Maher, & Vaugeois, 2019). Ecotourism has become even more crucial for small, rural and remote communities that often suffer from a lack of governmental attention and assistance (Belsky, 1999; Rajani & Vasanthakumari, 2014; Regmi & Walter, 2016; Yasu, Bajos, & Hazael, 2018; Tichaawa & Lekgau, 2019). Joppe (1996) notes that ecotourism is particularly important for the local communities since it gives people the opportunity to utilise their internal strengths and resources to become self-sufficient. In Africa, the role of ecotourism in economic diversification is increasingly gaining the attention of national governments (Akama, Maingi, & Carmago, 2011; Eshun, 2011; Amoah & Wiafe, 2012; Manu & Kuuder, 2012; Eshun, 2014; Harilal & Tichaawa, 2018; Ramón-Hidalgo & Harris, 2018). Currently, a plethora of published research evidence across Africa exemplifies the conservation and economic potential, or otherwise, of ecotourism development on the continent (Akama et al., 2011; Amoako-Acheampong, 2013; Mensah & Adofo, 2013; Eshun & Tagoe-Darko, 2015; Eshun, Adjei, & Baah, 2015; Menbere & Menbere, 2017; Dumbe, Seebaway, & Eshun, 2018; Jani, 2018; Ramón-Hidalgo et al., 2018). Nonetheless, there is a call for continued research attention from sub-Saharan Africa that elicits the contributions of the local communities to sustainable ecotourism development (Mbaiwa & Stronza, 2010; Akama et al., 2011; Eshun, 2014; Mudimba & Tichaawa, 2017; Eshun & Tichaawa, 2019). The current paper, therefore, seeks to contribute to filling the requirements for...
sustained interest in ecotourism scholarship. Using the Bobiri Forest Reserve and Butterfly Sanctuary (BFRBS) in Ghana as a case study, the research sought to identify the challenges that the local communities face in contributing to the sustainability of the ecotourism sanctuary, to categorise the benefits that the local communities derive from ecotourism, and to evaluate the local involvement towards its sustainability.

2. Literature review

The global protected area system was inherited from the nineteenth-century US model for forest preservation (Eshun, 2011; Eshun & Tonto, 2014). Globally, some 44,000 sites meet the definition of protected areas created by the World Conservation Union (IUCN). Together, the sites comprise 10% of the land surface of the world (Eshun, 2011). The protected areas fall under the six-category system of the IUCN, which aims at biodiversity conservation through varied management perspectives. In sub-Saharan Africa, there are about 440 protected areas covering about 2,600,000 km² (Eshun, 2011). Ecotourism is, perhaps, the single most important tourism sector to have benefited from such preservation (Weaver & Lawton, 2007; Wearing & Neil, 2009; Eshun & Tagoe-Darko, 2015). Rome (1999), therefore, cogently positions ecotourism as a leading strategy for supporting biodiversity conservation and for providing income for communities in and around the protected areas. Chakraborty (2019) also avers that ecotourism has been perceived, by scholars and stakeholders alike, as being an environment-friendly form of tourism that is rooted in the concept of low-impact travel in relatively undisturbed or wild areas, as opposed to the extensive movement of people and goods for the purpose of intensively developing a tourist destination. However, the body of literature on the potential of ecotourism to contribute to conservation and local well-being has largely been silent on the potential costs of ecotourism development (Ross & Wall, 1999; Scheyvens, 2007; Regmi & Walter, 2016).

Across the world, many ecotourism projects have been developed in or near such protected areas as forest reserves, with, in some instances, the local communities having come to depend on the availability of the natural resource (Eshun, 2014; Lekgau & Tichaawa, 2019). Often, locals are excluded from such projects, with pre-eminence being awarded to international corporations and developers from outside the local area, who come to the protected areas to establish hotels, and other tourism and hospitality infrastructure (Amoah & Wiafe, 2012; Romero-Brito, Buckley, & Byrne, 2016). Local marginalisation in terms of ecotourism planning, preparation and implementation are replete in the literature (Ashley & Jones, 2001; Eshun, 2011, Eshun, Adjei, & Segbefia, 2016). Eshun and Tagoe-Darko (2015) show that, in Ghana, almost invariably, the national officials and international collaborators couch the marginalisation of the local communities in terms of the management of ecotourism under the aegis of neo-crisis narratives. The relevant literature offers multiple examples of the exclusion of people in the host communities from ecotourism development, which could hamper their socio-economic development and the sustainable management of the existing natural and cultural resources, especially in view of the fact that the natural resources are often the main sources of their local livelihood (Honey, 2008; Fennell, 2014; Moyo & Tichaawa, 2017). The involvement of the local communities in resource management and their access to the income generated is emerging as being pivotal in achieving its irrefutable mandate of contributing to ecological sustainability (Yasu et al., 2018). The above notwithstanding, there are cases where external interests, especially at the national or global level, may marginalise the needs of the local people (Mowforth & Munt, 2015). Despite cases of greenwashing in ecotourism, it is often presented as a clear departure from mass tourism, with it being positioned within alternative forms of tourism (Fennell, 2014). Ecotourism continues to be
the most promoted form of alternative tourism, because of its overt link to the triple-bottom-line of sustainable development (Honey, 2008; Rajani & Vasanthakumari, 2014).

Increasingly, ecotourism is seen as a sustainable form of tourism that is based mainly on nature (Fennell, 2014). Indeed, the image that ecotourism promotes environmental education is an intrinsic component of its appeal and experience (Mühlhäusler & Peace, 2001; Kiss, 2004; Paris, 2016). Environmental education helps to reduce the negative repercussions at ecotourism destinations (Litlefair, 2004; Fennell, 2014). Such education is a gamut of activity, involving stakeholders like tour guides, travel agents, tour operators, local communities, and ecotourism management toward sharing and disseminating information creating environmental awareness (Eshun, 2011; Regmi & Walter, 2016). A copious amount of literature buttresses the point that environmental education and awareness, especially at the local community level, goes a long way toward creating biodiversity stewardship and the ramified impact of sustainability (Kiss, 2004; Li, 2006; Sirivejabhandu & Suthida, 2010; Ogar, Mbu, Okon, & Usang, 2016; Chakraborty, 2019).

The principles of community-based ecotourism (CBE) ensure the interests of the local people by promoting local management, local ownership and environmental education (Dumbe et al., 2018). Further, it places at the forefront the local community needs, the participatory approaches to decision-making, the access to resources, the equitable distribution of economic benefits, and the local entrepreneurship and diversification (Graci et al., 2019). A challenge of ecotourism lies in ensuring the effective interpretation of environmental, cultural and resource management values across all the stakeholders involved in its development (Belsky, 1999; Honey, 2008; Fennell, 2014). Currently, ecotourism developers rely on overly ahistorical, aspatial and asocial blueprints (Upton, 2008). Some authors have argued for the development of CBE, under the premise that, when the local communities have control over resources in their domains, they can build on the local ecological knowledge (Lindberg & Enríquez, 1994; Tosun, 2000; Dunphy, 2009; Eshun & Tonto, 2014; Romero-Brito et al., 2016). For instance, Walter (2009) has shown how local knowledge is created and used in environmental adult education in a CBE project on Koh Yao Noi Island in Thailand. However, the debate that the move for CBE development, especially in the developing countries, will remain a naïve chimera, unless the issue of community itself is contextualised and positioned within power structures over the control of attractions, prevails (Eshun, 2014; Eshun et al., 2015; Folarin et al., 2017). The literature also cautions against the propensity by some academics and tourism developers to see the local communities as being homogenous, which leads to them overlooking different groups and interests (Li, 2006; Mbaiwa & Stronza, 2010; Eshun, 2014; Menbere & Menbere, 2017). For instance, Regmi and Walter’s (2016) research into ecotourism in Nepal indicates that the poorer residents surveyed received fewer benefits from environmental conservation than did other members in the community. Congruently, Lash and Austin (2003) describe the unresolved major differences between local communities and ‘experts’ in terms of ecotourism development having frustrated even well-intentioned projects. In addition, they draw the attention of researchers to what they refer to as ‘ecological community’. They explain that the development of an ecological community means building ecotourism facilities in such a way that they do not overwhelm the existing ecological sustainability (i.e. the local materials and expertise are utilised as a form of ‘wise use’).

Indirectly, ecotourism can contribute to the challenges facing local communities, like the effects of unplanned development; the limited employment opportunities; the revenue uncertainties and leakages; the crime proliferation; the erosion of social relationships; non-local participation; and damage to wildlife (Lindberg & Enríquez, 1994; Ross & Wall, 1999; Kiss, 2004; Eshun, 2011; Menbere &
Menbere, 2017). Some researchers have also unraveled critical factors militating against ecotourism sustainability, *inter alia*: the limited access to the tourism market; the lack of commercial viability for local products; the incoherent marketing strategies; the marginalization of indigenous knowledge; the lack of suitable intergovernmental policy; and the planning and managerial incompetence (Mbaiwa & Stronza, 2010; Sirivejrabhandu & Suthida, 2010; Dumbe et al., 2018).

### 3. Research methodology

The BFRBS, which is an ecotourism site designated by the Forestry Research Institute of Ghana (FORIG), covers an area of 54.6 km² (21.1 mi²), is the largest reserve, in terms of total land area, that the FORIG administers (Eshun et al., 2015). The Sanctuary was created in 1939 when the area was still covered by unexploited primary forest, and it falls within the tropical moist semi-deciduous forest zones. It lies between latitudes 6°40” and 6°44” North of the equator and between longitudes 1°15” and 1°22” West of Greenwich (see Figure 1).

**Figure 1**

*Map of Bobiri Forest Reserve showing the study areas*

The Sanctuary hosts the Bobiri Forest Arboretum, with about 100 indigenous tree species, 120 bird species and about 340 butterfly species, and the Bobiri Guest House. The reserve is fringed by six communities, namely Krofofrom, Kubease, Nobewam, New Koforidua, Nkwankwadum and Duampomo.
Krofofrom, Kubease and Nobewam are points of entry to the BFRBS. The present study sought to collect data from all the fringe communities to ensure that each community was well represented in the research (see Table 1).

Table 1
Sample size for the study

<table>
<thead>
<tr>
<th>Study communities</th>
<th>Formula</th>
<th>Total population</th>
<th>Males</th>
<th>Females</th>
<th>Proportionate sample</th>
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<tbody>
<tr>
<td>Kubease</td>
<td>n=N÷(1+Ne²)</td>
<td>1,798</td>
<td>857</td>
<td>941</td>
<td>56</td>
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<tr>
<td>Krofofrom</td>
<td>316</td>
<td>159</td>
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<td>1,878</td>
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<tr>
<td>New Koforidua</td>
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<td>1,265</td>
<td>1,289</td>
<td>80</td>
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<tr>
<td>Nkwankwaduam</td>
<td>2,620</td>
<td>1,288</td>
<td>1,332</td>
<td>82</td>
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<tr>
<td>Duampompo</td>
<td>1,161</td>
<td>567</td>
<td>594</td>
<td>36</td>
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<td><strong>Total</strong></td>
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<td><strong>387</strong></td>
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As shown in Table 1, ‘N’ (12 389) is the sample frame, with ‘e’ (0.05²) representing the margin of error, where ‘n’ is the sample size (n=387), and the confidence level 95. Slovin’s formula n=N÷(1+Ne²) for sampling techniques was used in determining the sample size for the study, where n = Number of samples, N = Total population and e = Error tolerance (see Ellen, 2003). The study also interviewed some key informants, including the chiefs of the six communities, the manager of the Sanctuary, the Assembly Members of the study communities, and five of the forest management recruits from the Forestry Commission. The purpose of obtaining the data from the key informants was to add further credence to the survey data. Earlier, Eshun (2014) argued that the adoption of mixed methodological approaches in tourism research helps to capture some of the nuances and subtleties that are often sidelined in the pure quantitative research approach.

4. Results and discussion

The present section, which deals with the analysis of the field data, consists of the sociodemographic characteristics of the respondents, the level of awareness of the community members concerning the BFRBS, and the benefits that the communities derived from the BFRBS at the time of the study (Table 2).

Table 2
The socio-demographics of the respondents

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<th>Frequency</th>
<th>Percentage (%)</th>
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A total of 387 respondents from the six selected communities were involved in the study. Of the total number of respondents, the proportionate number for each community was 10, 56, 36, 80, 82, and 123 for Kroforom, Kubease, Duampompo, New Koforidua, Nkwankwaduam and Nobewam, respectively. Also, seven of the total number of respondents had attained an educational level of junior high schooling, whereas one had attained senior high schooling, as their highest level of education. Two (2) respondents had no formal education. The study confirms an earlier assertion made in relation to Ghana by Eshun (2011), Mensah and Adofo (2013) and Eshun and Tonto (2014), who found that the educational level of residents around eco-destinations in Ghana tended to be relatively low.

4.1. Benefits that the local communities derived from the BFRBBS

On the benefits that the local communities derived from the Sanctuary, divergent views were presented by the six communities concerned. Some (30%) of the respondents from Kroforom said that they derived benefits in terms of income generation, with10% deriving employment as a benefit from the BFRBBS. Benefits, in terms of timber, firewood, fresh air, medicine, and the prevention of heavy storm and rainfall fallout, were derived by 60% of the respondents. From the results obtained, it could be established that the Kroforom community members derived more ecological benefits than they did socio-economic benefits from the BFRBBS. A respondent noted:

*The forest provides good air, aids rainfall, prevents heavy storm[s] and provides herbs for medicinal purposes. The forest provides a pristine environment which contribute[s] to our well-being.*

Currently, the forest provides neither support to the farmers, nor developmental projects to enhance the sense of community well-being. The government focuses on the preservation of the forest reserve to the detriment of the sense of community well-being. However, the policy of admitted farms presents opportunities for the farmers to give portions of the reserve over to the indigenes’ farming activities, to serve as a source of employment and livelihood, though the policy has not, so far, been effective
The respondents from Kubease also gave a different view concerning the benefits obtained from the Sanctuary. While 35% of them affirmed that the Sanctuary generated income for the community, 30.4% confirmed the BFRBS’s provision of employment opportunities for the community. The employment was in the form of housekeeping in the guesthouse, casual labour, tour guiding and business opportunities for the indigenes to sell consumable products to the tourists (with only irregular financial returns). Scaccia, Kinneman, Butler, and Morin (2009), similarly, showed that the Damaraland Camp provided jobs for the local people, which allowed money to pass directly from the Camp to individuals living in the Conservancy. Indeed, the existing literature attests to the fact that the employment of the indigenes helped to address the marginalisation of the local people by providing alternative income with which they could support themselves and members of their family (Honey, 2008; Wearing & Neil, 2009; Eshun, 2011; Fennell, 2014). In addition, with the introduction of ecotourism to the area, some aspects of the culture of the local communities had become increasingly important, as the visitors developed an interest in seeing, and experiencing, such cultural traditions and experiences (Amoako-Acheampong, 2013; Eshun & Tonto, 2014; Eshun et al., 2015). The above was re-emphasised by the manager of the BFRBS:

*Community members benefit from [the] BFRBS by bringing their products, such as artefacts like beads and wood carvings, to [the] site to be sold to tourists to boost their income and also promote their culture.*

Also, the study of ecotourism in Belize by Lindberg and Enriquez (1994) showed that all the local communities benefited significantly from tourism in the protected areas nearby, from selling their handicrafts, and from providing accommodation and other services to the tourists. The existence of complementary attractions (e.g. cultural aspects) helped in sustaining the BFRBS. For example, the inclusion of the Ahoabobiri shrine in Kubease and the Akwasidae festival helped enhance the tourists' experience at the BFRBS. The above is in line what Honey (2008) suggests as far as the inclusion of culture in ecotourism goes. Scheyvens (2007) notes that experiencing a different culture is also typically described as being a form of ecotourism. Here, the emphasis is based on the fact that, in addition to supporting the generation of income, the residents were encouraged to preserve their culture within a rapidly changing global environment that is erosive of traditions. To ensure continued sustainability, the manager of the BFRBS noted:

*The Policy of Admitted Farms gives portions of the forest reserve to the communities for agricultural activities, in order to enhance their livelihood. Still, agriculture remains the primary occupation of the local communities.*

Meanwhile, some of the respondents affirmed that the forest aided in developmental projects, like the construction of the Information Centre and of toilet facilities for the community. Ramchurjee and Suresha (2013) state that ecotourism development can bring revenue to the local communities, as well as helping in the provision of such local facilities as roads and potable water supplies. Other benefits obtained from the forest consist of medical supplies, research-related material, timber, rainfall, and snail and mushroom collection, as indicated by the remaining respondents. Some of the respondents noted that they collected firewood from the forest for cooking purposes. At the time of the current report, the source of energy for cooking and heating was firewood, therefore restricting the local’s access to the forest impacted gravely on every household in the fringe communities. In the developing countries, the forestry sector remains the last resort for the securing of food and pertinent resources to prevent destitution being felt by the local communities (Belsky, 1999; Shackleton, 2005; Eshun & Tonto, 2014; Eshun & Tagoe-Darko, 2015). The conflict over natural resource ownership and utilisation, especially between the local community members and the managers of ecotourism-related...
ventures, continued to uproot any attempt at sustainability (Walter, 2009; Ramón-Hidalgo et al., 2018). A female respondent noted:

*We rely heavily on firewood for cooking, but it is not easy to come by these days. We are restricted from entering the forest for collecting firewood. When you enter the forest and are caught by the forest guides, you are asked to return the firewood into the forest. What puzzles me is that we are doing them a favour, since the firewood intensifies the damage done to the forest during fire outbreaks.*

In terms of income and employment, at Nobewam, 33 (26.8%) of the respondents indicated that the BFRBS generated income for the community, and 25 (20.3%) affirmed that the BFRBS provided employment for the locals. Those respondents who attested that the forest provided other benefits aside from an income, employment opportunities and developmental projects numbered 60 (48.8%). Such benefits were similar to those that were experienced by the other communities. At Nkwankwaduam, of the 82 respondents, 16 of them indicated that the forest generated income for the state. A community leader said:

*I know that the forest generates a lot of income to the State, but not directly to this community. The forest reserve generates income for the development of the State, at the expense of the welfare of the community within which the ecotourism project is established. This, I think, is the management style and ownership type used in the BFRBS.*

Furthermore, 11 of the 82 respondents confirmed that the BFRBS provided employment to the State. Three of the respondents said that the forest provided support for the farmers, to enhance their living. Five of the survey respondents indicated that the forest served as a source of support for providing developmental projects, like schools, roads and a marketplace. The remaining 47 (57.3%) respondents derived other benefits from the forest, like timber, medicine, firewood, and water from the rainfall. The New Koforidua respondents gave a different view on the benefits that they derived from the BFRBS. Of the 80 respondents, 25 (31.25%) said that the forest generated income for the state, which invariably triggered down to the community. Correspondingly, five (13.9%) of the 36 respondents confirmed that the forest provided employment for the State. Seven of the respondents said that the forest provided support for farmers through which they could enhance their living. Four of the survey respondents indicated that the forest served as a source of support for providing developmental projects. The remaining 23 (28.75%) respondents derived other benefits, like timber, medicine, firewood, rainfall, and the protection of wildlife. The above confirms what the farmer said, namely:

*The existence of the BFRBS ensures the protection of wild species. With the establishment of the forest reserve, both wild flora and fauna species are preserved for both tourists and our descendants, because community members are constrained by management from poaching some.*

The respondents of the Duampompo community gave a different view on the benefits derived from the BFRBS. Of the 36 respondents, six (16.7%) said that the forest generated income for the state, which invariably triggered down to the community. Correspondingly, five (13.9%) of the 36 respondents confirmed that the forest provided employment for the State. One of the respondents said that the forest provided support for the farmers to enhance their livelihood. Two of the survey respondents indicated that the forest served as a source of support for providing developmental projects. The remaining 22 (61.1%) respondents indicated that the communities derived other benefits, like timber, medicine, firewood, rainfall, and the protection of wildlife. However, none of the 387 respondents
was able to show how the revenue that accrued to the site was shared. The current benefit-sharing structure is shown in Table 3 below.

<table>
<thead>
<tr>
<th>Stakeholders</th>
<th>Shared percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Government</td>
<td>50</td>
</tr>
<tr>
<td>Management (CSIR-FORIG)</td>
<td>20</td>
</tr>
<tr>
<td>Stool land (JUABEN)</td>
<td>30</td>
</tr>
</tbody>
</table>

From Table 3, the 30% of benefits given over to stool land (i.e. traditional land), on which the BFRBS was established, had to be used to develop the communities concerned, which would, invariably, contribute to the local stewardship approach to biodiversity conservation. However, the above was not realised, since the authority of the stool land was distanced from the fringe communities. Ramón-Hidalgo et al. (2018), in research on ecotourism development in Ghana, generalised that ecotourism in Africa is mostly privately-owned. Earlier, Eshun (2011) argued that most of the popular ecotourism sites in Africa were built on colonial forest reservations, which served to marginalise the local communities, in terms of denying them access to the main source of their economic activity, namely land. Also, despite ecotourism’s promoted image as seeking to contribute to the sense of local well-being, the concept tends to have become embedded in the neoliberal business paradigm, with the benefits that are supposed to accrue to the local communities possibly being a mirage. For instance, Mowforth and Munt (2015) estimate that the proportion of total gross revenues from ecotourism that stays in the host community to be as low as 10% in certain countries, including the Bahamas and Nepal.

4.2. Challenges confronting the communities in contributing to BFRBS's sustainability

In the Krofofrom community, 10% of the respondents indicated that they had inadequate funds for investing in building accommodation for the visitors. They also indicated, further, that, due to the weak partnership between the locals and the management of BFRBS, their voices were almost non-existent in the management of the Sanctuary. Currently, the decision-making process at the Sanctuary is elitist in approach (Eshun et al., 2016).

Correspondingly, Eshun (2011) highlights the discontent present in some communities surrounding the Kakum National Park in Ghana, due to their exclusion from the decision-making process and from the management of the Park. Other associated challenges included the issue of poaching and the illegal entry of the local people into the forest to collect material. Some of the locals had reservations about the restriction, as is shown in the following avowal:

*They even restrict us from picking and collecting non-timber products from the forest reserve, such as snail[s] and firewood. And we [have to] buy pestle when we live very close to a forest.*

The remaining nine respondents, representing 90% of the total number of the respondents of Krofofrom, said that they were not confronted with any challenges in contributing to the sustainability of the BFRBS, with the reason for that being that the Sanctuary was government-controlled. A similar avowal was made by Ross and Wall (1999), that if the local people did not participate actively in, and did not derive benefits from, the ecotourism enterprise, they became negatively predisposed toward
it, and it might even undermine the operation and the sustainability of the ecotourism involved. The manager at the BFRBS re-emphasised that:

*The Sanctuary is managed by [the] government through the CSIR-FORIG. Major decisions are made by the CSIR-FORIG and forwarded to management to implement. Thus, community members have the perception that all decisions are made by FORIG.*

At Kubease, 20 (35.7%) of the respondents said that they were confronted with challenges in contributing to the sustainability of the Sanctuary in terms of providing accommodation to the tourists, in terms of participating in decision-making, due to the style of management employed, and in terms of investment, due to the absence of partnership. The respondents faced the challenge of contributing to the sustainability of the Sanctuary because they were not directly involved in the Sanctuary’s management since only leaders of the community were allowed to participate in decision-making, leaving the indigenes predisposed and indifferent towards the BFRBS. The issue of participation was also found to be divisive among the local people, such that those people who were close to the representatives of the community, in terms of relationship, tended to have a relatively high degree of involvement when compared to others who had no such association with the committee and with leaders in the community (Belsky, 1999). In the area of investment, no joint ventures and partnership between the State and the local community were found. Despite the above, according to Ashley and Jones (2001), joint ventures have been said to increase the amount of tourism undertaken in many different sectors. Several factors have contributed to the growing trend in tourism, such as more land being turned over to the communities for ownership, private investment helping the communities that otherwise would lack capital and business skills, as well as the current market trends favouring ecotourism and nature safaris. Business skills include such topics as business styles, business operations and procedures, as well as accounting and tactics. Another challenge is the issue of poaching, the bushfires, the lack of streetlights leading to the Sanctuary, and the muddiness and unmotorable condition of the roads, especially in the rainy seasons. Also, the majority of the respondents (64.3%) stated that they faced no challenge in contributing to the sustainability of the forest.

The New Koforidua community also exhibited the same characteristics as did the aforesaid communities, in terms of which the community members were involved in decision-making regarding the BFRBS. Of the 80 respondents, 21 (26.3%) attested that they faced a challenge in terms of contributing to the sustainability of the BFRBS. The above was due to the fact that they were unable to take part in decision-making (i.e. they were not regarded as a stakeholder in the forest). The finding contrasts with Ramón-Hidalgo et al.’s (2018) result obtained regarding the Tafi Atome Monkey Sanctuary in Ghana, where local empowerment was found to be possible because the ecotourism planning involved took into consideration the views of the local inhabitants. Other challenges faced in the present study included the leaders conniving with other groups to aid in illegal logging, and then blaming the community for such. Overall, the study communities were aware that the Sanctuary was centrally managed by the Forestry Commission of Ghana.

4.3. Measures adopted by the local communities in contributing to the sustainability of the Sanctuary

Research has shown that having a good relationship between ecotourism management and local communities has positive ramifications for ecotourism sustainability (Eshun, 2011; Ramchurjee & Suresha, 2013; Eshun & Tonto, 2014; Romero-Brito et al., 2016). Accordingly, the relationship between the management and the members of the community was crucial to the success, and the eventual
sustainability of the Sanctuary. The study sought to assess the relationship types involved, based on the cordial, hostile and other relationships between the management and the locals. In terms of cordial relationship, Nobewam recorded the highest count, with 66 (53.7%) of the total number of respondents establishing that the relationship between management and the locals was cordial. However, 32 of the total respondents took the opposite side, by affirming that the relationship between management and the local communities was hostile. The reasons given for the negative finding were that the community members were not usually allowed to enter the forest and that they sometimes entered the forest illegally. Moreover, when they were caught, they were sanctioned and handed over to those in authority for the imposition of punitive measures against them. They were usually made to return the firewood to the forest when they were caught gathering it. The remaining 25 respondents were indifferent as to the type of relationship existing between the management and the locals. Kubease had its record of opinions concerning the type of relationship that existed between the management and the locals. Of the total number of respondents, 52 (92.9%) acknowledged that the relationship between the management and the local people was cordial, with four opposing the assertion.

The Nkwankwadum respondents also had their fair share of views relating to the relationship types occurring between the locals and management. A total of 17 (20.7%) of the respondents registered a hostile relationship between management and the locals. However, 24 (29.3%) of the respondents were unable to differentiate the nature of the existing relationship. Interestingly, 41 (50%) of the respondents confirmed the existence of a cordial relationship between the two parties, and that it helped them to contribute to the sustainability of BFRBS. Concerning the New Koforidua count, 30 of the respondents rated the relationship concerned as cordial, whereas 5 stated that it was hostile. However, 45 of the respondents were uncertain of the type of relationship existing between management and the locals. Twenty (20) of the respondents in Duampono acknowledged the cordiality of the relationship. Nine (25%) of the respondents, however, confirmed the existence of a hostile relationship between management and the locals, whereas seven were unsure of the relationship type involved (Figure 2).

Figure 2
Relationship between the management of BFRBS and the local communities

Finally, at Krofofrom, six individuals confirmed the existence of a cordial relationship between management and the locals, whereas three recorded the relationship concerned as being hostile. However, the research indicates that the relationship between the locals and the management of community-based ecotourism ventures in Ghana has, largely, not yet become antagonistic, although some isolated cases have occurred in the country (Adjewodah & Beier, 2004; Eshun & Tonto, 2014; Eshun & Tagoe-Darko, 2015; Romero-Brito et al., 2016).

4.4. The role of the local communities in sustaining the BFRBS

The present study showed that the fringe communities performed different roles in promoting the sustainability of the BFRBS. In the case of Kubease, Krofofrom and Nobewam, which are the entry points to BFRBS, of the total number of participants in the study from the three communities, 126 (66.67%) respondents said that they helped to prevent the fire from spreading whenever there was a wildfire outbreak in and around the BFRBS. The above is similar to the assertion made in earlier studies that positive communication and harmony among the residents and the ecotourists helped to construct the symbiotic relationship required for continual stewardship toward the promotion of biodiversity conservation and a sense of local well-being (Littlefair, 2004; Honey, 2008; Fennell, 2014). Six (3.33%) of the respondents indicated that they helped to sustain the forest reserve by reporting those community members who poached wildlife species from the forest reserve, and those who farmed around the boundary of the reserve not using the recommended fire-resistant methods of farming, especially during the dry season, to the management of the BFRBS. However, the remaining 57 (30.0%) respondents from the Nkwankwadum, Duampompo and New Koforidua communities said that they played no role in sustaining the BFRBS because they did not benefit directly from the forest reserve. The above is in contrast to Mbaïwa and Stronza’s (2010) finding in a study on ecotourism among the indigenous communities in the Okavango Region in Botswana, in relation to which they found that ecotourism had become the main source of livelihood of the community members concerned. Also, in a study on ecotourism in Belize, Lindberg, and Enriquez (1994) found that all the local communities benefited significantly from tourism in the neighbouring protected areas by selling handicrafts, and by providing accommodation and other services to tourists, although the same situation did not prevail in Nkwankwadum. At New Koforidua and Duampompo, 57 of the respondents attested that they did not benefit from the ecotourism site in their community. A strong argument was raised in terms of ecotourism scholarship, about the need to increase the entrepreneurial capacity of the locals residing around the ecotourism sites, so as to help them benefit more from ecotourism than they had done in the past, and also to help curb the ominous leaking that faced most ecotourism sites, especially in the developing countries (Lindberg & Enriquez, 1994; Eshun, 2014; Yasu et al., 2018).

The current study also showed that the respondents said that visitor centres should be established in the fringe communities, and not only in Kubease. The respondents indicated that they would, given the opportunity, engage in ecotourism activities, during which the locals would be able to sell mementos to the tourists, and during which the tourists would experience the locals’ culture. Eshun et al. (2016) argue that the stationing of a reception post at Kubease would provide an income for the community members, because the tourists would then be able to buy certain items, like carved goods and batik dresses. Doing so would, ultimately, provide an alternative livelihood and curb the increasing poaching of the Sanctuary’s resources. Dunphy (2009) confirms that such endeavours are likely to enhance the development of the culture of the community and to ascribe value to the cultural dimension in its own right, in terms of which the intrinsic value of arts and creativity for the rural and remote communities would be recognised. In terms of increasing their livelihood options, some respondents argued for more land to be made available for farming.
The respondents suggested that the community members should be employed as forest guards. Earlier research into ecotourism in Ghana concluded that community involvement was elusive and that the employment opportunities that were made available to the locals were few (Amoako-Acheampong, 2013; Mensah & Adofo, 2013; Eshun & Tagoe-Darko, 2015; Eshun et al., 2016; Dumbe et al., 2018). Ecotourism is basically a service, with physical ambience playing a key role in attracting actual and potential visitors (Yang & Nair, 2014). At the time of the current study, the road leading to the BFRBS was not tarred to prevent air pollution, so that cars often became stuck in mud after heavy rain. Nkwankwadum community also suggested that frequent logging should be stopped, as they continuously heard the sound of chainsaws being used in the forest by companies that claimed that they had the right permits. The respondents also suggested that one-third of the benefits or profits generated should be used to develop the local communities. The development of ecotourism and the equitable sharing of the benefits accrued therefrom could contribute to the psychological empowerment of the local people, by enhancing their sense of self-esteem, and by cultivating their sense of pride in their cultural and natural heritage that might otherwise soon be lost to globalisation (Kiss, 2004; Scheyvens, 2007; Ramchurjee & Suresha, 2013; Eshun & Tonto, 2014). The respondents from Duampompo offered another suggestion for sustaining the BFRBS that involved the management checking the behaviour of the guards. They explained that some of the forest guards, in return for bribes received from certain community members, allowed them to access the forest, so as to engage in the poaching of animals and illegal logging. Ultimately, the contribution of the locals to ecotourism sustainability was invariably tied to the benefits that accrued to them in terms of the provision of such social amenities as schools, good roads, clinics, and potable water (Adjewadah & Beier, 2004; Eshun, 2011, 2014; Eshun et al., 2015; Eshun & Tagoe-Darko, 2015).

5. Implications and conclusion

The current study, which focused on the BFRBS in Ghana, sought to identify the challenges that the local communities face in contributing to the sustainability of the Sanctuary, to categorise the benefits that the local communities derive from ecotourism, and to evaluate the local involvement in promoting the sustainability of the Sanctuary. The findings show that there is a high level of awareness of the ecotourism project among the members of the surrounding communities. The study also revealed that the locals did not contribute extensively to the sustainability of the Sanctuary, because they did not consider themselves as the key beneficiaries therefrom. The study also shows that the Krofotrom, Kubease and Nobewam communities have benefitted more from the Sanctuary, because of their proximity to the ecotourism site. The benefits cited included the Sanctuary visitors’ patronage of the suppliers of local artefacts and services, and the offering of some level of employment that it generated for the local community members. The above notwithstanding, the close proximity to the Sanctuary made the poaching of fauna common among the members of the fringe communities concerned. These findings re-emphasise earlier research on ecotourism that posits that local communities that are located close to ecotourism sites, tend to receive the highest form of benefits from the niche-market because they are often the entry points to the attractions (see Belsky, 1999; Honey, 2008; Akama et al., 2011; Eshun & Tonto, 2014; Graci et al., 2019). Furthermore, their proximity allows them to participate in some of the activities at the ecotourism sites (Eshun et al., 2015; Yasu et al., 2018).

In the present study, most of the respondents denied the existence of a relationship between themselves and the management. Even if there was communication between the two parties, it was formal and always involved warnings being given from management to the members of the fringe communities in
respect of their illegal access to the Sanctuary. Although the current management largely marginalised the local involvement in the BFRBS, the residents were also regarded as lacking the requisite skills and knowledge to become part of management, or to be able to take advantage of the positive externalities associated with ecotourism development. Literature on ecotourism is replete with the argument that local communities often lack information, resources and power, which makes it especially difficult to reach the ecotourism market, and also for the locals to take up leading positions in ecotourism in their domains (Lindberg & Enriquez, 1994; Tosun, 2000; Scheyvens, 2007; Eshun & Tagoe-Darko).

Based on the results of the study, the following recommendations should be considered in managing the Sanctuary toward ecotourism sustainability in Ghana. First, the need exists to build consensus among the various stakeholders, including the Forestry Commission, the tourism-related NGOs and the local communities, to ensure that the different interests that they have in the available resources are properly addressed, toward ensuring the sustainability of the fauna and flora in the Sanctuary and the sense of local well-being. More broadly, from a theoretical viewpoint, this study shows that ecotourism and its practice can only contribute to achieving sustainability in most parts of sub-Saharan Africa when local communities play an active role in it. This puts overt onuses on all stakeholders involved in ecotourism to address their diverse interests in a way that reduces marginalisation and maximises the synergy that contributes to sustainability. In practical terms, more specifically to Ghana, the above demands reviving of the Tourism Management Committee to ensure the fair representation of the local communities in the Sanctuary’s management, and also toward the equitable distribution of the benefits that should accrue to them. Li (2006) asserts that the local participation in tourism-related decision-making in the Sichuan Province in China did not deprive the local communities of receiving satisfactory benefits from tourism, because the right structures were put in place for revenue sharing. Therefore, in as much as there should be mechanisms implemented to ensure that the locals participate in the decisions concerning the Sanctuary, it is germane that the revenue involved should be shared between the management/State authorities, the landowners and the broad local community both transparently and equitably (Eshun, 2011; Eshun & Tonto, 2014).

Furthermore, the FORIG and other actors should put in place measures to build the capacity of the locals through the provision of training in management, hospitality, tour guiding and other employable skills geared toward the tourism industry. The special initiatives must be undertaken to facilitate the accessing of credit by the local entrepreneurs, so as to enable them offer tourism-related services that help to curb leakage. Congruently, the locals must be trained in alternative livelihood activities, like art and craft making, apiculture, mushroom growing, and snail farming. Such livelihood activities should not be seen as an end in themselves, but they should be embedded within the tourism value chain, so as to ensure that there is a ready market for the products and services of the trainees. Many such interventions, during the emergence of ecotourism in Ghana from the 1990s onwards, collapsed, due to the inherent weakness of the local managerial skills and the existing intelligence and financial support structures (Eshun, 2011). Eshun (2014) adds to this debate, by stressing cogently that ecotourism sustainability in Africa, rests on stakeholders to address concurrently the ‘dual mandate’ of the niche-market. The ‘dual mandate’ (i.e. biodiversity sustainability and local well-being), must be practised within the milieu of what Brechin, Wilshusen, Fortwangler, and West (2002) refer to as the ‘pragmatic middle ground’. The ‘pragmatic-middle-ground’ motif argues that ecotourism in its purest form must give equal attention to its conservation biodiversity and local development objectives.

Moreover, plans are afoot to develop a festival based on the Sanctuary, and to open up the site further, as an attractive site for weddings and other events. Such complementary activities should be carried
out under the rubric of ‘wise use’. Both complementary and supplementary activities at ecotourism destinations have the potential to create further multiplier effect for the locals (Ashley & Jones, 2001). Contrary to other research on the nexus of ecotourism and community participation, this study maintains that ecotourism is not a one-size-fits-all concept, which therefore demands all stakeholders involved in its development and marketing to pragmatically seek for what works at each community, against the backdrop of global best practices. In sum, the current study re-echoes what Eshun and Tagoe-Darko (2015, p. 392) stated some years back, namely that "the overarching challenge for the diverse stakeholders in ecotourism in Ghana is not whether the country should promote ecotourism, but rather what kind of ecotourism should be developed holistically as a win-win strategy for biodiversity conservation and community development”.

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