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LANDOWNERS' PERCEPTIONS AND INVOLVEMENT IN THE MANAGEMENT OF KYABOBO NATIONAL PARK, GHANA

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Abstract

This study examines the perceptions of landowners of fringe communities of the Kyabobo National Park (KNP) about their involvement in the creation and management of the KNP. Four KNP-fringe communities namely: *Shiare, Odomi, Gekorong,* and *Keri* which are less than a kilometre from the boundary of the park were selected for the study. Pearson correlation coefficient was used to establish the relationship between landowners' perceptions and their involvement in the management of the park. A systematic sampling method was used to select 212 landowners for interviews using a structured interview schedule. The study found that some landowners in the KNP-fringe communities were employed at various levels in the management of the park but were not managing partners of the park. Landowners also benefited from selling handicrafts to park visitors. The physical infrastructures in the communities have remained poor. It is recommended that landowners in park-fringe communities are given the opportunity to become managing partners of the park to guarantee the successful operation of the park. Government should also provide modern physical infrastructure in the KNP-fringe communities as was promised prior to the establishment of the park.

Keywords: community involvement, ecotourism, Kyabobo, landowners, perceptions

INTRODUCTION

An emerging trend in resource conservation is community involvement in the establishment and management of national parks (Acharya, Maraseni, & Cockfield, 2019). National Parks (NPs) are often surrounded by communities that rely heavily on forest resources for their sustenance. Consequently, experts have predicted that the exclusion of local people in the creation and management of NPs will lead to the loss of commitment by the fringe communities to protect the NPs (Dei, 2008; McLaughlin, 2011). The involvement of fringe communities in decision-making, programme implementation, as well as sharing of the benefits of developing and evaluating programmes sustain conservation objectives (Aikins, Gbogbo, & Owusu, 2018).

Economically, NPs enhance the economic wellbeing of park-fringe communities through nature-

based tourism. According to Dei (2008), NPs attract eco-tourists to countries that earn revenue to fund development projects. For instance, Kenya's Amboseli National Park (ANP) earns US\$ 40 per hectare per year and this is fifty times more than her revenue from agriculture (Mwato, 2019). Governments, therefore, consider eco-tourism as a panacea to ailing economies (Segbefia, 2008). Similarly, NPs create direct employment for neighbouring communities as rangers, administrative staff and indirectly in the sale of souvenirs (Vodouhe, Coulibaly, Adegbidi, & Sinsin, 2010).

These benefits encourage local support for the parks, ensure sustainable management of biodiversity resources and resolve misunderstandings between the managers of NPs and fringe communities (Asiedu, 2002). Park-fringe communities are motivated to undertake resource conservation only if

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they are actively involved in the creation and management of the parks. According to Aikins et al. (2018), community participation in resource conservation serves as a boost to protect natural resources.

The concept of community involvement in NPs is particularly important in developing countries because NPs encroach on lands that are owned by groups in fringe communities. In Ghana, community forests and lands are held in trust by chiefs for the people as *stool* or *skin* lands. Therefore, park-fringe communities must be involved in the management of forests which are technically located on their lands.

In reality, however, park-fringe communities are hardly involved in the creation and management of NPs in many countries (Abukari & Mwalyosi, 2018). This has often led to indigenous people expressing concerns about their exclusion from the planning, administration, management, and sharing of revenue from entrance fees (Ashiagbor & Danquah, 2017). Governments of many developing countries often acquire lands in pristine areas for the creation of NPs without appropriate consultations or payments of compensation to landowners for loss of property. What is evident is the eviction of the locals from their traditional homes to make way for the creation of NPs (Ayivor, Gordon, & Ntiamao-Baidu, 2013). Perhaps, the reason underlying the forced eviction is the belief that government owns all lands in the country. But Kludze (2013) was of the view that every piece of land in Africa as a whole and Ghana, in particular, belongs to three generations: the ancestors, the living, and future generations.

Park-fringe communities face a number of challenges following the creation of NPs. They are refused game hunt, lumbering and performance of rituals on the parks by-laws which established the NPs. Besides, residents in park-fringe communities are often not partners or part of the day-to-day management of the parks. Local communities whose

lands are taken by governments receive promises of compensation which are often not paid in full (Vondolia, 2009). Finally, the creation of NPs often brings about high expectations of development projects, yet, park-fringe communities have been characterised by poor road networks, poorly equipped clinics and the absence of potable water (IUCN-PACO, 2010).

Furthermore, understanding landowners' perceptions and involvement in the management of NPs makes it possible to create management strategies for the NPs. Such management strategies built on park-fringe communities' positive perceptions and their willingness to be involved in the management of Protected Areas (PAs) mitigate negative attitudes (Allendorf, 2007).

Many studies have been undertaken on fringe communities' perceptions and attitudes toward PAs in Ghana. Amuquandoh (2010) undertook a study on residents' perceptions of the environmental impacts of tourism in the Lake Bosomtwe Basin, Ghana. Results of the study showed that residents expected both positive and negative effects after the development of the PAs though they were highly motivated by the positive side. Besides, Akyeampong (2011) also examined pro-poor tourism particularly residents' expectations, experiences and perceptions in the Kakum National Park (KNP) area of Ghana and concluded that some expectations were too high. Nevertheless, other expectations had been met.

These notwithstanding, most studies on NPs have been skewed toward other concerns to the neglect of the perceptions and involvement of the park-fringe communities in the management of NPs. For instance, Larsen (2006) explored the butterfly population and composition in the Kyabobo National Park (KNP) and found that KNP holds almost 80% of the total butterfly population in the Oti and Volta Regions of Ghana. Besides, Bruku (2016) undertook a case study of perceived risks and management



strategies in protected areas of KNP in the Nkwanta South District of the Oti Region.

From the foregoing, it is obvious that many of the studies on perceptions and attitudes of fringe communities toward PAs and NPs did not examine perceptions and involvement of the fringe communities in protected areas (Abukari et al., 2018; Acharya et al., 2019; Aikins et al., 2018; Akyeampong, 2011; Amuquandoh, 2010; Ashiagbor et al., 2017; Bruku, 2016; Larsen, 2006). It can be concluded from the above that very little has been done on perceptions and involvement of park-fringe communities toward NPs in spite of the fact that the issue of community perception and involvement is important to the economic sustenance of the park-fringe communities.

This study, therefore, fills a gap in research between findings which emphasise community participation in the management of NPs *vis-a-vis* perceptions of landowners in park-fringe communities which perhaps prevent them from participating in such activities. In addition, it is hoped that reasons underlying landowners' willingness or otherwise to be part of park management will be exposed to bridge the perceived gap in research. The main objective of the study is to examine the perceptions of landowners in KNP-fringe communities about their involvement in the management of the KNP. Specifically: (i) to assess the levels of involvement of landowners in the management of the park and (ii) to examine landowners' expectations of benefits from the park.

LITERATURE REVIEW

Theoretical Framework

The framework of Consensus Planning with Communities (Figure 1) was developed in line with

the decentralisation policy of Ghana. It allowed the participation of local communities in the decision-making processes of the Metropolitan, Municipal and District Assemblies (Dei, 2008).

The framework of Consensus Planning with Communities uses: top-down and bottom-up approaches to solve problems involving park-fringe communities. It thrives on the interactive nature of development planning at various regional levels and recognises landowners in the creation and sustainability of parks. The framework also explores consensus to eliminate the imposition of parks on fringe communities.

According to the framework, the establishment of NPs first began as a top-down approach emanating from central government decisions (Vodouhe et al., 2010). For example, the creation of the KNP was integrated into a broader national development plan aimed at controlling the illegal entry of Ghanaian nationals into the Fazao-Malfacassa National Park in the Republic of Togo. Benefits derived by fringe communities from NPs have been assessed in various studies in communities surrounding NPs through the *trickledown* effect on local communities (Aikins et al., 2018; Allendorf, 2007).

The framework of Consensus Planning with Communities has been used to explain agreement among stakeholders of NPs (Dei, 2008). However, it stops short of identifying the factors which influenced landowners' perceptions about the management of NPs. Hence, the framework for Understanding Park-fringe Communities' Perceptions based on a study on the Masoala National Park in Madagascar (Ormsby & Kaplin, 2005) was adopted.

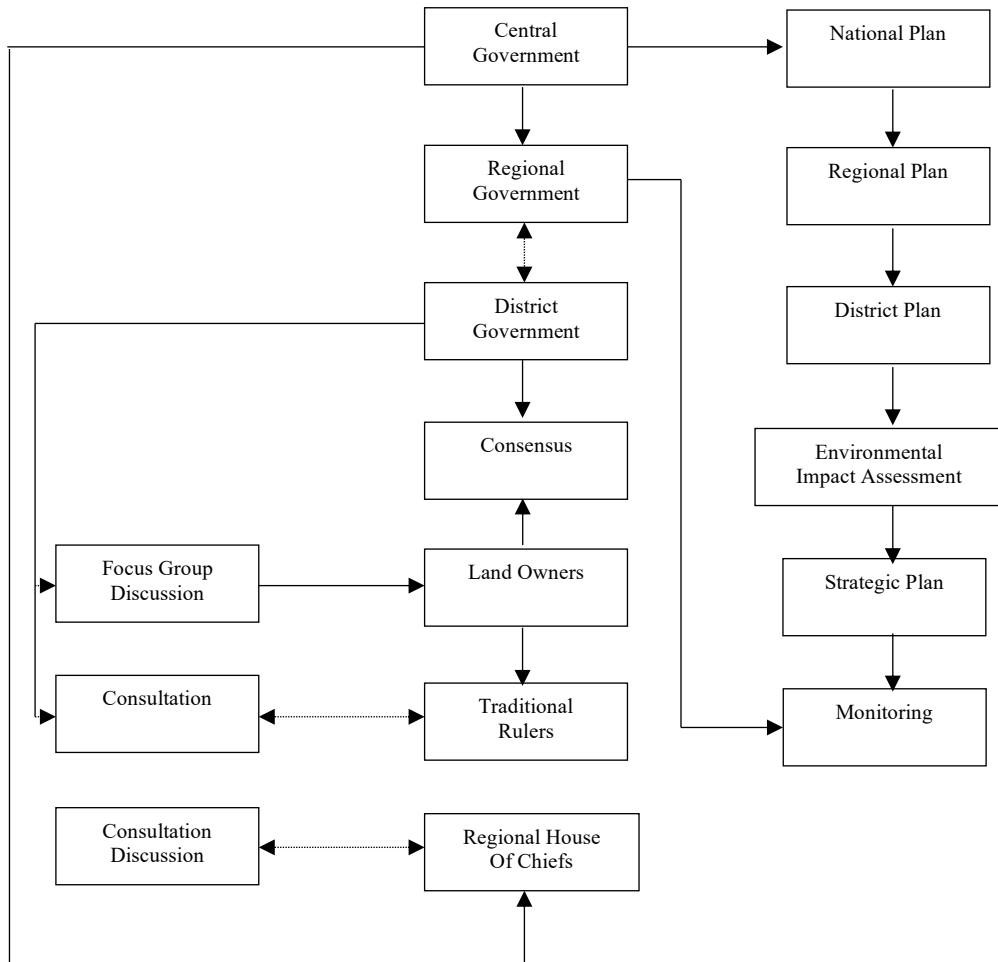


Figure 1: Framework of Consensus Planning with Communities

Source: Dei (2008)

The framework (Figure 2) assumes perceptions of park-fringe communities affect their level of participation in park management. Also, conflicts between park authorities and local

communities affect the effectiveness of park management. The framework focused on: factors which influenced perceptions of park-fringe communities about the Masoala National Park.

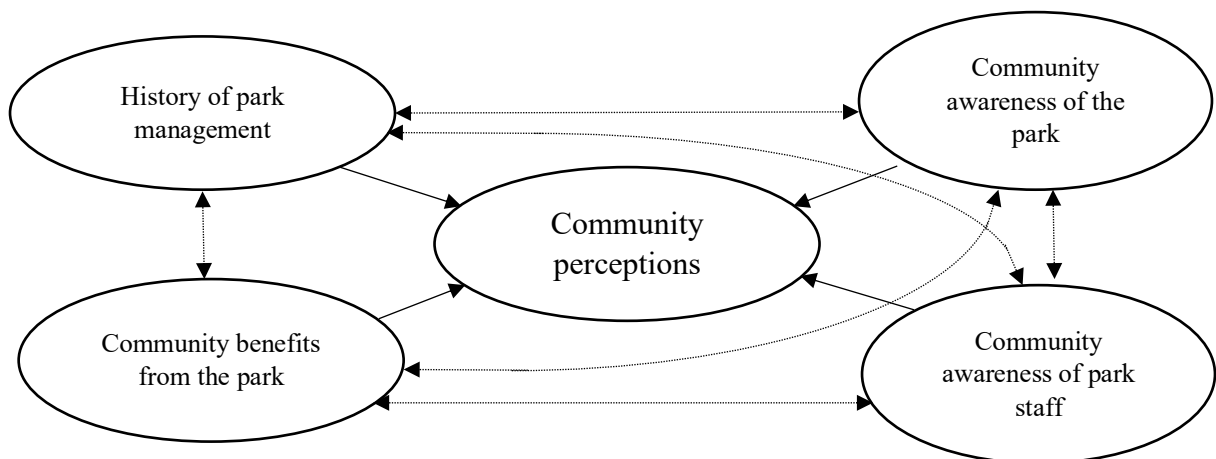


Figure 2: Framework for Understanding Park-Fringe Communities' Perceptions

Source: Ormsby and Kaplin (2005).



Park-Fringe Communities' Involvement in the Management of National Parks

Efforts to promote NPs after independence in many countries did not succeed because the programme failed to include park-fringe communities in the creation and management of the parks (Abukari et al., 2018; Vodouhe et al., 2010). Prior to 1993 in Benin, the Pendjari National Park (PNP) was centrally managed by the government using coercion to keep fringe communities away from the park. Today, the incorporation of park-fringe communities in the management of parks has been seen as a means of satisfying the vital ethical empowerment of local people and ensuring successful conservation (Abukari et al., 2018; Holmes, 2003). Hence, park-fringe communities' involvement was set within the context of their participation in the creation and management of NPs.

Indeed, the involvement of park-fringe communities in the creation and management of NPs was crucial to legitimising the parks. Conflicts erupted between park authorities and fringe communities when the natives perceived parks as projects that served the interests of outside elites and foreigners (Chan, Pringle, Ranganathan, Boggs, Chan, Ehrlich, Haff, Heller, Al-Khafaji, Macmynowski, 2009). Hence, the participation of park-fringe communities in park creation and management had helped to diffuse such tensions (Ashiagbor et al., 2017). Besides, traditional knowledge of park-fringe communities in park ecology became important in the scientific understanding of the ecological functioning of NPs. In the past, natural scientists that were in charge of NPs lacked a complete understanding of social issues which affected NPs. As a result, the involvement of park-fringe communities in management brought such ecological information to the fore in addition to the needs of the communities which needed to be addressed by park management.

From the foregoing, it is hypothesised that there is no significant relationship between perceptions of landowners in KNP-fringe communities and their involvement in the management of the KNP.

Typology of Community Participation

Community participation describes the involvement of fringe communities in the management of NPs. Fringe communities' participation could be classified based on the degree of community involvement in park management. It takes the forms of manipulation, consultation or genuine participation as well as power-sharing between fringe communities and park management. Tosun's (1999) view of community participation was set within the context of community participation in tourism development. The ideal considered community participation as a categorical term which permitted the participation of people, citizens or the host community at different levels (local, regional or national). Accordingly, Tosun (1999) classified community participation in tourism development into coercive participation, induced participation and spontaneous participation.

Coercive participation represents the lowest form of community participation which manifests in manipulation. Local residents who wield power participate in park management only as educators of fringe communities to prevent possible and actual threats to NPs. Park management may take decisions to provide basic needs of fringe communities by consulting with local leaders with an actual motive to lessen risks such as encroachment associated with park management. Coercive participation epitomises the non-involvement of local residents in park management processes. According to Rasmussen and Pouliot (2021), coercion of local residents in Patagonian Protected Area communities in Argentina gave way to the inclusion of the indigenous peoples in the management of PAs. Rasmussen et al., (2021)



noted that management of PAs in Argentina previously merely ended in an unequal share of power, knowledge and social identities with park-fringe communities.

Under induced participation, local communities have a say in the creation and management processes of NPs but cannot enforce their views on park management. The government was not bound by a legal obligation to consult identifiable stakeholders such as park-fringe communities in establishing or enforcing park management decisions. This is common in developing countries where local communities merely approve of decisions of government regarding the creation and management of parks. Induced participation is typically top-down, passive and indirect management type. Consultation with local communities is for the sake of it. In Ghana, the Mole National Park (MNP) is a good example of a government-managed NP.

Finally, spontaneous participation represents a perfect form of community participation in which managerial responsibility and authority are shared between fringe communities and park management. They recognized the legitimate entitlements of each other to manage NPs. Examples in Ghana included the Tafi-Atome and the Buabeng-Fiema Monkey Sanctuaries. Hence, spontaneous participation is based on power-sharing with fringe communities. Similarly in Argentina, PAs specifically Patagonian Protected Area had seen a surge in co-management strategies by which Patagonian Protected Area-fringe communities were given access to decision-making which hitherto were denied the park-fringe communities (Rasmussen et al., 2021). These new initiatives sat oddly with past and current park management policies which were marked by repression, dispossession and forced resettlements. Co-management as a principle for Patagonian Protected Area governance had occurred alongside the advent of multiculturalism in Argentina, a nation

whose history was stained by its ideals of European whiteness to the detriment of indigenous people.

Co-management enabled the management of NPs to have control of park resources as well as easy access to decision-making processes involving local residents in the park-fringe communities. Co-management signified an important step towards greater inclusion of park-fringe communities in NPs decision-making processes. Co-management policy largely remained within the logic of science-based conservation. Finally, the involvement of park-fringe communities in biodiversity conservation served the good of the park-fringe communities and promoted their development. Integration of park-fringe communities in park management helped to achieve park objectives.

Conceptual Framework

In order to analyse the perceptions of landowners of park-fringe communities at the KNP, key factors in the framework for Understanding Park-fringe Communities' Perceptions were incorporated into the conceptual framework of this study (Figure 3). Factors in the conceptual framework were determined based on the literature of related studies in other countries (Obeng, 2017).

Moreover, the factors and their interactions in the framework emerged as important influences on landowners' perceptions about the management of the KNP (Figure 3). For instance, management positions occupied by landowners in the management of the park interacted with the effects of KNP on the livelihoods of landowners and increased landowners' knowledge of park management activities. In addition, landowners' involvement in the management of the KNP which included the provision of facilities such as toilets and wells for park-fringe communities interacted with landowners' expected benefits from the park leading to positive perceptions of the park. Further interaction between communities' expected



benefits from the park equalises with effects of the park on the livelihoods of the local people. Hence, this conceptual framework offered a systematic way to

conceptualise important factors which influenced the perceptions of landowners.

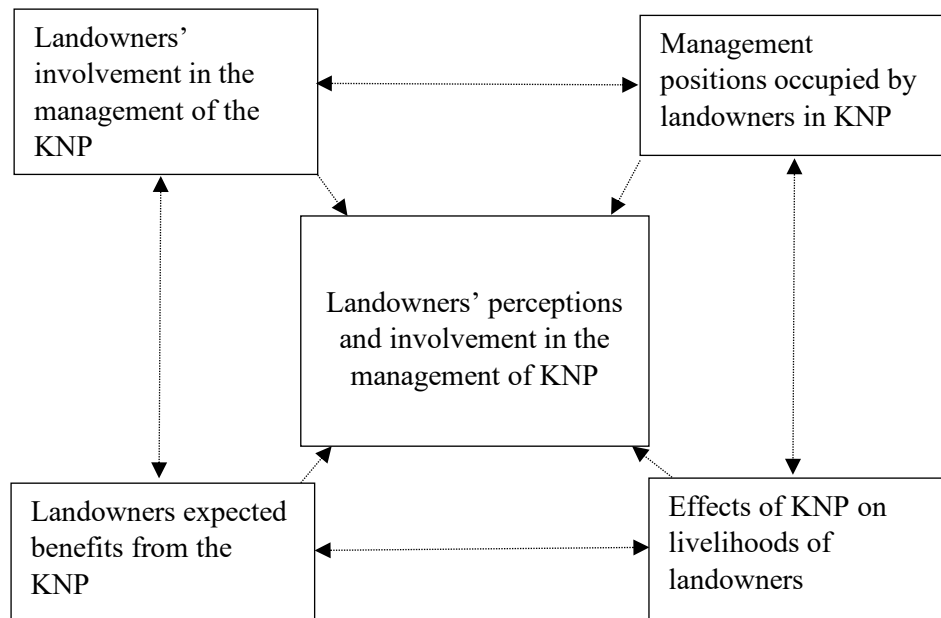


Figure 3: Framework of Factors which Influence Landowners' Perceptions and Involvement in the Management of KNP

Source: Adapted from Ormsby and Kaplin (2005).

This framework has been useful in discussing perceptions of landowners of fringe communities about the park. As stated by Amuquandoh (2010) and Aikins et al. (2018), levels of local communities' participation in the management of NPs affected their perceptions. In the Executive Instrument and Development Plan which established the KNP, the aim of the government was to restrict Ghanaians from poaching on the Fazao-Malfacassa National Park in the Republic of Togo. That followed a complaint by the government of the Republic of Togo against the Republic of Ghana at the International Criminal Court in the early 1990s that Ghanaians illegally hunted game in its Fazao-Malfacassa National Park (IUCN-PACO, 2010). Consequently, the International Criminal Court directed Ghana to establish NP on its side of the border to control Ghanaians from poaching on the Fazao-Malfacassa National Park in Togo and to

ensure peace between the two neighbouring countries. Hence, the creation of KNP was prioritised by the government.

The framework of factors that influenced perceptions of landowners of the KNP-fringe communities provided the right basis for analysing perceptions of the landowners. This is an important reason for the use of the framework for this study. KNP was established because chiefs in the *Shiare*, *Odomi*, *Gekorong* and *Keri* communities approved of it following consultations and negotiations with the government for compensation.

Landowners in KNP-fringe communities have been employed in various capacities at the KNP. Apart from benefits that were expected to accrue to individuals and communities, KNP authorities also expected landowners' involvement in the management of the park to result in local protection



against encroachment and destruction. The conceptual framework, therefore, linked landowners' involvement in the management of the KNP to management positions occupied by landowners in the KNP. In addition, the effects of KNP on the livelihoods of landowners were connected to landowners' expected benefits from the KNP in order to assess how these factors influenced landowners' perceptions and their involvement in the management of the KNP.

MATERIALS AND METHODS

Study Area

Figure 4 shows the map of the KNP and its boundaries. The park is 359.8 square kilometres and lies in both the Nkwanta North and Nkwanta South Districts of the Oti Region of Ghana. It is 230 km north of Ho the Volta Regional capital and 10 km north-east of Nkwanta, the District capital of Nkwanta South. KNP is on the boundary between savanna and forest zones in Ghana where woodland and mainly semi-evergreen forest types intermingle extensively at the western end of the Dahomey Gap (IUCN-PACO, 2010). The government formally acquired the land to establish KNP through Executive Instrument No. 20 of 16th September 1993 (IUCN-PACO, 2010).

The park is surrounded by communities such as *Kyilinga*, *Shiare*, *Krumase*, *Odomi*, *Gekorong*, *Keri*, *Pawa*, *Kue*, and *Abriwanko* whose main occupation is subsistence and commercial farming of plantain, yam, maize and cassava. Some community members also engage in the hunting of wildlife, beekeeping and grasscutter rearing. The KNP was mapped out because of its unique stock of threatened wildlife species. Most animals are difficult to see in the park as the forest is quite thick while the terrain is difficult. The red river hog (*Potamochoerus porcus*) perhaps, is the most abundant large mammal although the Red-flanked duiker (*Cephalophus rufilatus*) and grey duiker (*Sylvicapra grimmia*) are commonly seen.

Other animals include warthog (*Phacochoerus Africanus*), and monkeys (*Cercopithecus Diana*). The park also contains the African forest elephant (*Loxodonta Africana*). These elephants migrated from Fazao-Malfacassa National Park in the Republic of Togo into the KNP.

There are about 235 permanent species of birds in the KNP although about 102 species are migratory. Among the attractions of the KNP are a few tall hills from the distance called the *Breast Mountains* because, from a distance, they look like the "young breasts of a woman lying flat on her back". The remote location of the park, its scenic beauty, in addition to its reasonable number of wildlife species makes KNP an attractive place for ecotourism, recreation and scientific research.

Research Design

The cross-sectional design is a fact-finding design useful in obtaining descriptive data. It is a scientific tool used in research which involves the determination of the relationship between the factors being studied. According to Obeng (2017), the cross-sectional design is useful in collecting data at a point in time to describe prevailing conditions and relationships between variables at a place. Hence, Obeng (2017) concluded that cross-sectional design is a fast and cost-effective means of data collection to describe prevailing conditions.

In view of diversity in landowners' perceptions about management of the KNP and the nearness of fringe communities to the park, a cross-sectional design was more suitable for data collection. Quantitative research is a scientific process that involves data collection in order to test hypotheses. The process involves data collection, data management, analysis of results and comparison of one set of facts to another. This research design enables in-depth study of perceptions, perspectives and understanding of situations (Obeng, 2017). It was



therefore useful particularly, in assessing the level of landowners' involvement in the management of the KNP, examining differences in perceptions between landowners who work on the park and those who do not, evaluating landowners' expected benefits from the park, as well as analyse effects of KNP on livelihoods of landowners.

Quantitative research in this study involved administering interview schedules. The use of quantitative research allowed increased likelihood of accurate, quantified and representative conclusions which were generalised.

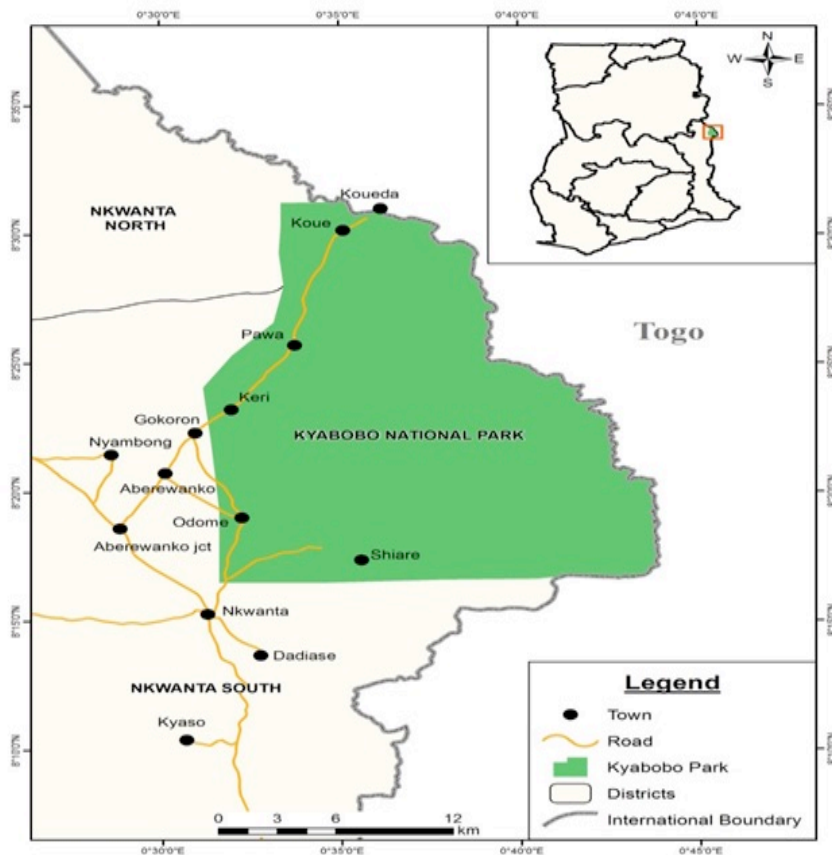


Figure 4: Map of Kyabobo National Park

Sampling and Data Collection

Primary data on landowners' perceptions and their involvement in the management of the KNP were obtained from landowners in the park-fringe communities namely: *Shiare*, *Odome*, *Gekorong* and *Keri* because these communities are less than a kilometre from the boundary of the KNP. Secondly, much of the land housing the park belonged to landowners whose livelihood activities were likely to be affected highly by the creation of the park.

To obtain the population of landowners in each community, their houses were numbered by the researchers. A total population of 2,106 landowners was obtained. Based on a table of population and corresponding sample size by Gay, Mills and Airasian (2009), a sample of 212 landowners was chosen. The sample size for each community was calculated based on a proportional allocation of 10 percent of the population (Table 1).

**Table 1. Sample of Respondents in Selected Communities**

Communities	Number of landowners	Landowners selected
<i>Shiare</i>	511	52
<i>Keri</i>	821	82
<i>Odomi</i>	416	42
<i>Gekorong</i>	358	36
Total	2,106	212

A systematic sampling technique was used to select landowners in each sampled community for the study. For instance, in the *Shiare* community, 52 landowners were selected systematically at an interval of ten from 511 landowners. The landowner of the 4th house was randomly selected followed by the landowner of the 14th house then landowners of the 24th house in series: 4th, 14th, 24th, 34th, 44th, 54th,...514th. The 52 structured interview schedules were administered to landowners in *Shiare*. In all, 212 interview schedules were administered during evenings and weekends when respondents were available at home.

Structured interview schedules with open-ended and closed-ended questions were used in data collection. The questions were largely based on a literature review on park-fringe community participation in resource conservation in Ghana and other countries.

Data Analysis

Data from the field were analysed using statistical software: Statistical Product for Service Solutions (SPSS) Version 18. SPSS enabled the easy computation of percentages and frequencies to illustrate the analysis. The hypothesis was tested using Pearson's Correlation Coefficient. Pearson's Correlation Coefficient was used to determine whether a relationship existed between landowners' perceptions of the KNP and their involvement in the management of the KNP.

FINDINGS AND DISCUSSION

Landowners Expected Benefits from the Park

Landowners expected benefits from the KNP are shown below (Table 2). Respondents strongly agreed (mean = 4.98) that they expected KNP to employ them in the management of the park because they owned the land. In further explanation, they contended that such employment could help to hold back the landowners from migrating to urban centres in search of jobs. Most of the respondents agreed that KNP-fringe communities developed positive perceptions about the park when forty-five landowners were employed upon the establishment of the park in 1993. These findings coincide with assertions by Segbefia (2008) and Vodouhe et al. (2010) that NPs provide employment to fringe communities.

The respondents strongly agreed (mean = 4.99) that they expected park authorities to promote trade in local handicrafts, accommodation and local dishes through advertisements on television, radio and in ecotourism magazines. Clarifying their position further, the respondents stated that they expected visitors to the park to buy local handicrafts as mementoes of their visits and for their loved ones back home. Local tourists were also expected to patronise local dishes and accommodation facilities in the communities because of their relatively cheaper prices. In all, 98.1% of respondents expected a higher standard of living in their communities after the creation of the park.

**Table 2: Landowners Expected Benefits from the Park**

Landowners expected benefits from the park	N	% in agreement	Mean	Standard Deviation
KNP will provide employment to landowners	212	99.1	4.98	0.19
KNP will promote trade in local handicrafts	212	99.1	4.99	0.10
KNP will improve the standard of living of the community	212	98.1	4.98	0.14
KNP will bring about infrastructural facilities which will be enjoyed by the people	212	94.3	4.94	0.23
The creation of the KNP will help conserve the forest	212	99.1	4.99	0.10
KNP will promote my community as a major ecotourism destination	212	94.3	4.94	0.23
KNP will project the cultural values of my community to outsiders	212	74.5	4.75	0.44
Establishment of the park will project the image of my community	212	84.0	4.83	0.40

Scale: 1 = Strongly disagree; 2 = Disagree; 3 = No opinion; 4 = Agree; 5 = Strongly agree

Respondents strongly agreed (mean = 4.94) that they expected good roads, electricity, pipe-borne water and health posts immediately after the park was established but their infrastructure remain poor. These respondents explained further that *Shiare*, *Odomi*, *Gekorong* and *Keri* communities were characterised by poor road networks and the absence of pipe-borne water.

Hence, the KNP fringe communities felt betrayed by the government when promises of infrastructure never materialised. In their view, the provision of infrastructure was to make their communities very attractive to tourists. This finding supports the findings of Allendorf (2007) that park-fringe communities feel robbed if promises of infrastructure never materialise.

Most respondents expected roads linking their communities to be reconstructed to make accessibility possible for tourists. However, they were disappointed that those expectations had not been realised. For instance, they lamented the continuous neglect of the footpath to *Shiare* community. Again, respondents strongly agreed (mean = 4.75) that they expected KNP to project the cultural values of their communities to outsiders. They stated with pride that their cultural practices: mode of greeting, local meals,

traditional clothing and dances were never ridiculed in the past and did not expect that to happen when tourists through their communities after the park had been established.

Similarly, they expected tourists to learn more about their cultural practices first-hand. Most respondents explained further that criminal acts such as rape and robbery were non-existent in their communities. These findings coincide with the findings of Dei (2008) that NPs have become a major strategy of countries with ecotourism potential through which they demystify cultural misinformation.

Furthermore, respondents strongly agreed (mean = 4.94) that they expected KNP to promote their communities as major ecotourism destinations because of unique landforms such as waterfalls and other physical features associated with the park: its location between savanna and forest belts, flora and fauna and the uniquely projected *Breast Mountains*. The majority of respondents expected the biodiversity of the park to be helpful to scientists and researchers.

Moreover, respondents strongly agreed (mean = 4.99) that the creation of the park would conserve the forest and improve its biodiversity because of restrictions on entry into the park. For



example, four respondents in *Keri* community stated that rivers in the park moisturise the soil and enhance the growth of trees.

Furthermore, 99.1% of the respondents expected the scattered vegetation of the park to transform into a thick forest and provide accommodation for a variety of migrant animals from the Fazao-Malfacassa National Park in the Republic of Togo which shares boundaries with the KNP. These respondents added that they were hopeful that the park would protect its mountains against degradation and prevent Ghanaians' illegal game hunt in Togo's

Fazao-Malfacassa National Park. Finally, they stated that control of cross-border crimes such as cocoa and fuel smuggling will abate through strict enforcement of KNP laws which prohibit illegal entry into the park.

Perceptions of Landowners in KNP-Fringe Communities about the Management of the Park

Table 3 shows that respondents (landowners) strongly agreed (mean = 4.98) that the biodiversity of the park improved significantly two decades after its establishment. These respondents constituted 99.1% of the respondents.

Table 3: Perceptions of Landowners in the KNP-Fringe Communities about the Management of the Park

Landowners' perceptions	N	% in agreement	Mean	Standard Deviation
Biodiversity of the park area has improved significantly following establishment of the KNP	212	99.1	4.98	0.19
The size of the KNP is too small	212	0.9	1.27	0.47
The KNP staff are impartial in executing their duties on the park	212	67.2	4.39	0.66
Herdsmen agree with restrictions imposed on livestock access to the park	212	2.8	1.12	0.56

Scale: 1 = Strongly disagree; 2 = Disagree; 3 = No opinion; 4 = Agree; 5 = Strongly agree

Meanwhile, respondents strongly disagreed (mean = 1.27) that the size of the park was too small and the boundaries should be moved forward to enlarge the park. These respondents (99.1%) explained that much of their arable lands had been lost to the park and will not accept a further extension of park boundaries which would create a shortage of farmlands in the communities.

Furthermore, respondents agreed (mean = 4.39) that the park staff were impartial in the performance of their duties. They identified several duties of KNP staff which included: public education on conservation, protection of biodiversity of the park, environmental protection against degradation and bushfires, and training of local people in alternative livelihoods activities such as snail and grasscutter rearing. This 67.2% of respondents stated their

positive impressions about the KNP staff. However, 32.8% had had negative experiences with the park staff such as rude behaviour and violent confrontations.

In further explanation, all respondents stated their disappointment that KNP authorities failed to create an official forum such as a community meeting or conservation awareness programme to interact with them since the park must be protected through public education on conservation benefits. Consequently, they described park staff as mere law enforcers who were unable to educate their communities on conservation. They suggested the shifting of resources from policing the park to public education programmes on conservation. This sentiment and finding were similarly expressed by Allendorf (2007), and Ormsby et al., (2005) that positive neighbourly



interactions in the forms of conservation awareness activities and park-community meetings result in an understanding of park staff.

Landowners' Involvement in the Management of the KNP

Landowners' involvement in the management of the KNP was examined within the context of their participation in the creation and management of the KNP. Information about landowners' involvement in KNP is shown below (Table 4). The majority of respondents strongly agreed (mean = 4.53) that they (landowners) were informed about the government's intention to establish the park. Again, respondents agreed (mean = 4.35) that their opinions were sought before the creation of the KNP. These respondents constituted 74.5% and 62.3% of total respondents. These findings were contrary to the literature that park-fringe communities were hardly involved in the creation and management of NPs (Ashiagbor et al., 2017; Vodouhe et al., 2010). Efforts to promote NPs after independence in many countries did not succeed because the programme failed to include landowners in park-fringe communities in the creation and management of parks. For instance, landowners in fringe communities of Ria Celestun Biosphere Reserve in Mexico were not consulted by the government in the process of its establishment (McLaughlin, 2011). The Biosphere Reserve officials also failed to encourage the participation of landowners in the management of the reserve.

Furthermore, prior to 1993, the PNP in Benin was established and centrally managed by the government using coercion to keep PNP-fringe

communities away from the park. Coercive participation represents the lowest form of community participation in park management which manifests in manipulation. Local residents who wield power participate in park management only as educators of fringe communities to prevent possible and actual threats to NPs. Coercive participation epitomises the non-involvement of local residents in park management processes. Such alienation creates discontent among the landowners in park-fringe communities and results in non-compliance with park rules, hostility and conflict between residents and park staff (Rasmussen et al., 2021; Tosun, 1999).

More than half of the respondents agreed (mean = 4.27) that they were allowed to express concerns about the proposed park through their chiefs. Subsequently, the chiefs were involved in negotiations and in the administrative processes leading to the payment of compensation to landowners. The respondents agreed (mean = 4.41) that the interests of landowners in fringe communities were factored into the KNP plan because they were consulted by their chiefs for their views. Also, respondents agreed (mean = 4.54) that their communities were involved in processes that led to the establishment of the park. These findings coincide with the findings of Dei (2008) and Abukari et al., (2018) that the sustainability of ecotourism depends on community involvement in the management. These respondents recounted how the government expected flora and fauna that were near extinction to be regenerated and the promise that stray animals could be killed to supplement the nutritional needs of local people.

**Table 4: Landowners' Involvement in the Management of the KNP**

Landowners' involvement in the management of the KNP	N	% in agreement	Mean	Standard Deviation
Landowners were informed about governments intention to establish the KNP	212	74.5	4.53	0.83
Opinions of the landowners were sought before the creation of the KNP	212	62.3	4.35	0.88
The landowners were allowed to express its concerns	212	55.7	4.27	0.87
Interest of landowners was factored into KNP plan	212	55.7	4.41	0.74
The landowners were involved in processes leading to establishment of the park	212	69.8	4.54	0.87
Landowners supported the decision to establish the park	212	75.5	4.54	0.83
The landowners are partners in the management of the KNP	212	1.9	2.08	0.34
The park provides employment to local people	212	77.4	4.57	0.80
Qualified landowners work in managerial positions on the park	212	29.2	4.01	0.76
Local residents are allowed entry into the park to do business	212	58.5	4.31	0.88

Scale: 1 = Strongly disagree; 2 = Disagree; 3 = No opinion; 4 = Agree; 5 = Strongly agree

Nevertheless, few of them expressed their disappointment that they as actual landowners were not directly involved in negotiation with the government. For instance, four respondents in *Shiare* community wrote that their paramount chief, the Late Nana Oberko Agyei II, *Osuwulewura of Akyode Traditional Area*, accepted the agreement reached with the government for the lands which resulted in the loss of their arable lowlands. Consequently, few of them resisted the creation of the park but were beaten and ejected by the military from the area housing the park today. This finding coincides with the findings by Ayivor et al., (2013) that locals were often evicted forcefully from their traditional homes to make way for the creation of NPs because they believed that government owns all lands in the country. *Shiare* community is situated on a scarp opposite the KNP. This notwithstanding, 75.5% of respondents supported the decision to establish the park.

Respondents disagreed (mean = 2.08) that they were in partnership with the government in the management of the park (Table 4). According to the landowners, they were employed in management

positions on merit. This finding starkly contrasted assertions by Abukari et al, (2018), Dei (2008), and Mclaughlin (2011) that local community participation in management is now regarded as critical to the success of NPs. The absence of partnership with the government in the management of parks represents induced community participation. Local communities have a say in the creation and management processes of NPs but cannot enforce their views on park management. According to Rasmussen et al., (2021) PAs in Argentina, specifically, PNP had seen a surge in co-management strategies by which fringe communities were given access to decision-making which hitherto were denied the fringe communities. Co-management as a principle for national park governance had occurred alongside the advent of multiculturalism in Argentina, a nation whose history was stained by its ideals of European whiteness to the detriment of indigenous people.

Again, respondents strongly agreed (mean = 4.57) that KNP provides employment to local people and that qualified landowners work in managerial positions at the park (mean = 4.01). The respondents



who agreed to the assertion constituted 77.4% and 29.2% respectively of total respondents. The respondents explained further that young men and women in their communities were employed initially as park rangers after the establishment of the park. However, many of them resigned their posts because of frequent and deadly attacks on them by encroachers who shot and killed their colleague rangers. They were quick to add that those resignations were voluntary. The rangers decided to resign from their posts in order to protect their lives and not because they were fired by management. This finding relates to findings by Chan et al. (2009) that employment of local people prevents encroachment on NPs.

Moreover, more than half of the respondents agreed (mean = 4.31) that they were allowed entry into the park to do business. For instance, 58.5% of the respondents indicated that with permission from park authorities, they entered the park to collect seeds for sale. They explained further that traditional rituals such as sacrifices to ancestors for good harvest and

protection against epidemics were performed yearly in sacred groves located in the park under the supervision of park security guards to prevent the killing of animals by residents participating in the ritual.

Relationship between Landowners' Perceptions and their Involvement in the Management of the KNP

The relationship between landowners' perceptions about the KNP and their involvement in the management of the KNP was tested using Pearson's Correlation Coefficient because of the following reasons. Firstly, the data were ordinal, secondly, the data had a normal distribution, thirdly, the data was a parametric statistic (inferential); finally, it determined the relationship or association between the two variables. Therefore, Pearson's Correlation Coefficient established the relationship between landowners' perceptions about the KNP and their involvement in the management of the KNP (Table 5).

Table 5: Correlation between Landowners' Perceptions and their Involvement in the Management of the KNP

		Perceptions	Involvement
Perceptions	Pearson Correlation	1	.726*
	Sig. (2-tail)	-	.000
	N	212	212
Involvement	Pearson Correlation	.726*	1
	Sig. (2-tail)	.000	-
	N	212	212

*Correlation is significant at the 0.05 (2-tail)

The correlation between landowners' perceptions about the KNP and their involvement in the management of the KNP was tested at a significance level of 0.05. From Table 5, the correlation coefficient for perceptions and involvement is 0.726 and the *p*-value for the two-tailed test is 0.000. Thus, there is a strong, positive and

significant correlation between perceptions and involvement ($r = 0.726$; $P = 0.000$; $N = 212$).

Hence, the Null Hypothesis (H_1) that: "There is no significant relationship between perceptions of landowners in the KNP-fringe communities and their involvement in the management of the KNP" is rejected. Similar studies



about fringe communities of Machalilla National Park (MNP) in Ecuador had suggested that fringe communities' perceptions of the park were positively correlated to positive attitudes toward involvement in the park management (Ashiagbor et al., 2017). In Benin for instance, participation of fringe communities in the management of the PNP is based on local communities' appreciation of the objectives of the park and that has helped to achieve PNP goals (Vodouhe et al., 2010).

This finding also coincides with the findings of Amuquandoh (2010) and Vodouhe et al., (2010) that participatory management leads to the renewal of the mindset of park-fringe communities and the positive support necessary to save NPs from encroachment. In addition, conflicts erupt between park authorities and fringe communities when the natives perceive parks as projects that serve the interests of outside elites and foreigners (Chan et al., 2009). The involvement of landowners in fringe communities in park management has helped to diffuse such tensions. Consequently, the incorporation of landowners in park-fringe communities in the management of parks has been seen as empowerment of local people. This ensures successful conservation because participatory management leads to positive support for NPs (Acharya et al., 2019; Dei, 2008).

CONCLUSION AND RECOMMENDATIONS

Based on this study, first, respondents disagreed that they were in partnership with the government in the management of the park. According to the landowners, they were employed in management positions on merit. This starkly contrasted the established park management principle of community participation as suggested by Abukari et al. (2018), Dei (2008), and McLaughlin (2011) that local communities' participation in the management of NPs is critical to the success of such projects. Involvement of fringe communities in park

management is a broad decentralisation strategy that enhances efficiency in the management of NPs. In fact, the involvement of fringe communities in the management of parks is a means of satisfying the concept of community empowerment in successful conservation (Abukari et al., 2018; Dei, 2008; Rasmussen et al., 2021).

In the absence of participation, conflicts erupt between park authorities and fringe communities because the communities perceive parks as projects that serve the interests of elites and foreigners (Chan et al., 2009). Hence, landowners' participation in park management remains important to diffuse such tensions (Dei, 2008).

Landowners in the KNP-fringe communities expected good roads, electricity, pipe-borne water and health posts in their communities immediately the park was established but those expectations were yet to be fully realised (Akyeampong, 2011). When fringe communities' expectations of development projects are not met, their attitudes toward the park turn negative (Allendorf, 2007).

The conceptual framework of the study showed factors which influenced landowners' perceptions and their involvement in the management of KNP. For instance, management positions occupied by landowners in the management of the park interact with the effects of KNP on the livelihoods of landowners. In addition, landowners' involvement in the management of KNP which included the provision of facilities such as latrines and wells for park-fringe communities interacted with landowners' expected benefits from the park leading to positive perceptions of the park. Further interaction between communities' expected benefits from the park coincides with the effects of the park on the livelihoods of the local people. Hence, this conceptual framework offered a systematic way to conceptualise important factors which influence perceptions of landowners and their involvement in the management of KNP.



Factors in the conceptual framework were determined based on the literature of related studies in Ghana and other countries (Obeng, 2017). The factors provided the right framework for analysing landowners' perceptions and their involvement in the management of KNP. The framework was useful because KNP authorities could easily address concerns inherent in the factors of the conceptual framework which were central to the success of KNP and for the benefit of all stakeholders.

Based on the findings of this study, the following recommendations were made for improving landowners' perceptions about the management of KNP and to encourage landowners' participation in the management of the park for its sustainable development.

Firstly, the government should fulfil its promise by providing physical infrastructure in KNP-fringe communities. The government, through its annual budgetary allocation to the Ministries of Forestry, Lands and Natural Resources, Roads and Highways, Water Resources Works and Housing should provide KNP-fringe communities with roads, pipe-borne water, health posts and electricity. KNP is important because of employment creation, revenue generation and ecotourism promotion. Consequently, good roads should be constructed from Ho, the Volta Regional capital, to connect KNP in the Nkwanta North and South Districts which are largely connected by Class Three roads. The provision of these infrastructural facilities would project the image of KNP in the eyes of the landowners and sustain their support for the park.

Secondly, there should be a conscious effort by the Forestry Commission to involve landowners in KNP-fringe communities as partners in the management of the park. Besides, the Local Government Act of 1993, (Act 462) provided for local communities' participation in the planning processes of Metropolitan, Municipal and District Assemblies

(MMDAs). Hence, the involvement of landowners in the processes of planning is crucial if projects are to succeed. The support and commitment of the landowners are vital for the success of the park project. Landowners in KNP-fringe communities should be actively involved in discussions and debates on infrastructure and other developmental projects in the Nkwanta North and South District Assemblies. Landowners in KNP-fringe communities should continuously be recognised by central and local governments as important stakeholders in the management of the park.

Furthermore, priority should be given to qualified landowners in KNP-fringe communities during the recruitment of park staff. The involvement of the landowners will enhance conservation since they would take the steps necessary to protect their source of livelihood. Income earned by these landowners will improve their standard of living. The impact of ecotourism on landowners will be positive provided local participation as partners in the day-to-day management of the park is allowed. Local participation would encourage the development of income-generating activities and improve the incomes and well-being of the landowners (Abukari et al., 2018; Asiedu, 2002).

Finally, there should be regular research to analyse the challenges faced by KNP in managing park resources *vis-a-vis* the interest of landowners in park resources. Landowners impact the ability of parks to meet conservation objectives. Hence, understanding factors underlying perceptions of landowners in KNP-fringe communities about their involvement in the management of the park could help improve the landowners' participation in the management of the KNP. This recommendation has been successfully implemented in Madagascar and Benin respectively to fill a gap in knowledge necessary for sustaining the development of NPs (Ormsby et al., 2005; Vodouhe et al., 2010).



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