



**TECHNIUM**  
**SOCIAL SCIENCES JOURNAL**

**Vol. 24, 2021**

**A new decade  
for social changes**

[www.techniumscience.com](http://www.techniumscience.com)

ISSN 2668-7798



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# **Traditional ecological institutions and natural resource governance – a study of selected traditional communities in Ghana**

**Edwin Kodwo Kuntu Blankson**

PhD. Course Tutor, College of Distance Education, University of Cape Coast

[edyblanks@gmail.com](mailto:edyblanks@gmail.com)

**Abstract.** Studies on Natural Resource Governance (NRG) have often explored the institutions, principles and processes of governance and promoted the practice of endogenous governance systems as a better alternative to statutory imported governance systems. Empirical studies on Natural Resource Governance (NRG) in traditional communities have however not explored sufficiently the dynamics and processes of integrating Traditional Ecological Institutions (TEIs) in to NRG. The main objective of the study was to explore the nature of resource governance in Boabeng – Fiema, Tafi – Atome and Amansuri communities in Ghana. Additionally, the study examined the role of Traditional Ecological Institutions in the governance process and explained the role played by the TEIs in achieving the governance principles. The study employed a multiple-case study approach using a qualitative study design. A combination of convenience and purposive sampling were used to select the respondents. Data collection was through interviewing, focus group discussion and observation. Qualitative data analysis involved thematic analysis, discourse analysis and interpretative phenomenological analysis. The study revealed that, the governance system relied mostly on traditional ecological institutions, laws, processes. Moreover, the key institutions that were major governance players were the chieftaincy, the traditional priesthood and the clan/ family institutions. The roles played by the institutions differed from community to community but mainly centered on law enforcement, monitoring and review of ecological laws on natural resource use and conservation. The main recommendation was that, for the integration of TEIs into NRG system to be improved, there was the need to properly document the TEK and Traditional Governance regimes that justified the involvement of these institutions in NRG.

**Keywords.** Natural, Resource, Governance, Traditional, Ecological, Institutions

## **1. Introduction**

Natural resource governance is the means by which society defines goals and priorities and advances cooperation with regards to their natural resource. It includes policies, laws, decrees, norms, instruments and institutions (IUCN, 2013). The working definition of natural resource governance for the study was the norms, institutions and processes that determine how authority and responsibilities over natural resources are exercised, how decisions are taken, and how citizens participate in and benefit from the management of natural resources. Theoretically, the importance of integrating traditional ecological knowledge (TEK) into natural resource governance has been encouraged by some scholars such as Berkes et al (2003) and Millar (1999)

as a key requirement for promoting endogenous development. There is however a theoretical gap with regards to the functionality of endogenous development theory in a changing world taking into consideration the assumptions of the resilience theory and assurance problem theory.

Studies such as Ntiamoa - Baidu (1995) and Attuquayefio & Fobil, (2005) have examined the blend of traditional and modern conservation systems, however empirical evidence on the nature of the integration of TEK Institutions into NRG in Boabeng – Fiema and Tafi – Atome with regards to cosmovision, TEK institutions and TEK processes remain unexamined. The study examined Traditional Ecological Institutions and Natural Resource Governance at Boabeng – Fiema and Tafi – Atome and the Amansuri resource areas and explored the integration of TEK Institutions into NRG with key interest in four governance principles; Rule of law, Transparency, Accountability and Participation.

Natural resources have huge influence on the culture, livelihood, economy and religion of societies globally (Trosper & Parrotta, 2012). The huge contributions of natural resources to the socio-economic development of countries have motivated a universal need to protect them from over exploitation (UN, 2008). For most societies, the practices and approaches used in ensuring the sustainable use of their natural resources depend on their knowledge and local philosophies on nature and ecological relations, generally referred to as - Traditional Ecological Knowledge (TEK) (Barthel and Isendahl, 2013). Brockman, Masuzumi, and Augustine (1997), define traditional ecological knowledge as a body of knowledge built by a group of people through generations of living in close contact with nature. Globally, the philosophies behind TEK systems have dwelt on the cosmovision of the people and are sustained by institutions referred to in the study as Traditional Ecological Institutions.

Available literature (Afenyo, 2012; Attuquayefio & Gyampoh, 2010; GWS, 2003) have examined the history and institutions of TEK in the three research areas. Their studies, however, did not cover the processes by which TEK is generated as well as the “resilience of TEK”, that is the ability and potential of TEK to adapt to changes in society. In addition, Kearney (1989) and Pinkerton (1989) have all attested to the fact that natural resource governance which is not centred on site specific culture and knowledge systems are often not welcomed and thus ineffective in ensuring sustainable development. Studies conducted by Afenyo (2012) and Attuquayefio and Gyampoh (2010) explored natural resource governance in some rural communities such as Tafi - Atome and Boabeng - Fiema. Their studies examined the relationships between the local people and the formal institutions that facilitated the resource governance process in these communities.

### **1.1 Objectives**

The main objective of the study was to explore the role of Traditional Ecological Institutions (TEIs) in Natural Resource Governance at Boabeng– Fiema, Tafi – Atome and Amansuri resource areas.

The specific objectives were to examine the role of Traditional Ecological Institutions in the natural resource governance system, explore the role of TEIs in the achievement of NRG principles and identify the points of integration of statutory and traditional institutions in NRG.

## **2. Methodology**

The philosophical assumptions underlying this study are afrocentrism and interpretivism. The study adopts the afrocentric and interpretivist approach because it sought to explain a knowledge system which is deeply embedded in African cultural beliefs and practices, traditional knowledge and technologies, traditional religion and scientific believes which are

subjective in nature. The qualitative study design was employed in this research because of its ability to elicit in-depth views and perspectives of the participants (Yin, 2004).

The multiple - case study design was used for the research. According to Yin (2004), a multiple case-study is an empirical inquiry that investigates a similar or diverse contemporary phenomenon within their individual real-life context, especially when the boundaries between phenomenon and context are not clearly evident. The study areas were three rural communities in Ghana, West Africa. These were, Boabeng- Fiema in the Bono East Region, Amansuri in the Western Region and Tafi - Atome in the Volta Region. The three study areas were selected for the following reasons: Amansuri, Boabeng-Fiema and Tafi - Atome wildlife sanctuaries all operate on complex religio-cultural belief systems that rely on traditional norms, myths, taboos, totems and closed seasons to preserve certain critical natural resources (Ntiamao - Baidu, 1995; Abayie - Boaten, 1998; Attuquayefio & Fobil, 2005).

The target population of this study were the key persons involved in resource governance and the citizens of Amansuri, Boabeng - Fiema and Tafi – Atome. The study also considered users of the resources and temporary residents who have had some experiences with the governance processes as part of the population.

The study relied on both primary and secondary sources of data. The primary data were obtained from the field through interviewing, group discussions and observation. The secondary data were obtained from the Wildlife Division of the Forestry Commission and archival documents from the district assemblies, traditional councils and the Ghana Wildlife Society.

Data collection was done through reviewing of relevant documents and archival records, interviewing, direct observation, participant- observation, group discussions and examination of physical artefacts. Interview guides, group discussion guides and observation check-lists were designed based on available literature on traditional ecological knowledge (TEK) and natural resource response validity were ensured by reviewing transcribed responses with the respondents through validation workshops. Finally, triangulation techniques such as having several interviews, group discussions and observations in each community was done.

Data processing was conducted using techniques such as mind mapping to reduce the data and organize data into themes based on the objectives and the conceptual framework. Another analytical approach that was used is interpretative phenomenological analysis (IPA). IPA, according to Palmer (1969), is more appropriate if a study needs to explore in detail how participants make sense of their personal and social world, and the value of those experiences for participants. For ethical reasons, participants were briefed well on the depth of information required from them and their consent were sought on the extent to which they prefer to be anonymous.

### **3. Findings and conclusions**

#### **3.1 NRG at the study areas**

The NRG systems were studied under three components. These were, the governance laws, institutions, and governance processes.

##### **3.1.1 NRG Laws at the study areas**

At Boabeng-Fiema, it was realized from the interviews and the group discussions, that the laws that govern the governance process were a combination of traditional laws and state laws on forests and wildlife conservation. The marriage between the traditional laws and the statutory laws have been formalised by a legalised byelaws on The Boabeng-Fiema Monkey Sanctuary which was put together jointly by the traditional council, the wildlife division of the forestry commission, the Nkoranza District Assembly and the national tourism authority.

Customary laws in Boabeng-Fiema places a ban on fanning, harvesting and hunting in the Forest habitats of the Colobus and Lowe monkeys (children of the gods). This ban is strategic to protect the home, sources of food and the young ones especially of these two monkey species.

At Tafi-Atome, *traditional byelaws were jointly prepared by the traditional council and the partnering agencies for final discussion and adoption by all stakeholders including the Hohoe District Assembly in 1993. These draft byelaws seek to forbid the following among other negative activities within the core area of the monkey sanctuary: farming, collection of fuel wood, collection of plants and parts of plants (medicinal plants, roots, bark, leaves, flowers, fruits and seeds), hunting and livestock grazing. The byelaws also protect the Ahavor River against pollution. Aside the traditional laws, the following national laws and regulations are applicable to the Tafi-Atome traditional area. The enforcement of the byelaws were preceded by a strong awareness creation programme which placed emphasis on the need to conserve the existing timber resources and to curtail the misuse and illegal use of chainsaws in the project area.*

At the Amansuri, the laws on natural resource governance area was a combination of statutory and traditional laws and taboos on the use of their natural resources. The statutory laws defined the Amansuri wetland area and its wildlife resources as nature conservation area under the Amansuri Conservation and Integrated Development (ACID) Project. The ACID project was designed and implemented by the Ghana Wildlife Society (GWS) in partnership with the Western Nzema Traditional Council (WNTC) in 2000. The key resources regulated by the bye –laws are; the Amansuri lagoon, lake, wetlands, mangroves, beaches and forest wildlife. The traditional disciplinary committee is headed by the priest and the community mother (elderly woman who is also the community counsellor). This shows an integration of TEIs into the natural resource governance. Traditionally, there are buffer seasons and fallow areas as well as refuge sites (sacred zones) where hunting is strongly forbidden.

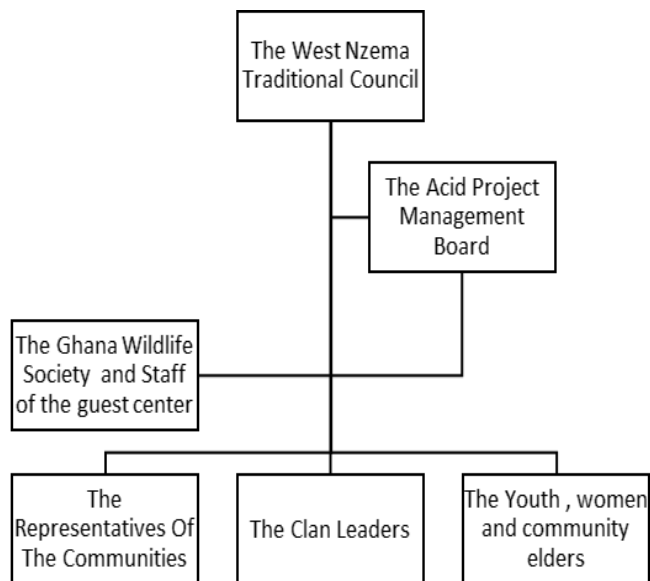
### **3.1.2 Natural Resource Governance Processes and Institutions**

In all three study areas, it was found that there existed management committees which were responsible for general management of the resources and all related ecotourism activities. These management committees reported to management boards that met quarterly and biannually to audit and evaluate the work of the management committees. There were however major differences in the composition and structure of the management committees as well as the roles assigned to them. The governance of the natural resources in the Amansuri conservation area include several coordinated processes which include four major activities; Ecotourism management, Resource protection and conservation activities, Traditional ecological rituals and practice, Community durbars and reporting activities.

Natural resource governance at the Amansuri conservation area is coordinated by two major institutions, the West Nzema Traditional Council headed by the paramount Chief. Other natural resource governance institutions include the traditional councils of the partnering communities, youth development groups, fishermen associations, women groups and the district assembly.

The management team liaises strongly with the West Nzema Traditional Council, the clan and community elders and the Ghana wildlife society. The management board is chaired by the paramount Chief, and other members include; the manager of the Tourism Centre (who is the representative of the Ghana wildlife Society), The Chiefs of Benyin, Nzulezo, Ebonloa, Nglekazo, Ekebaku, the principal fetish priest and a representative of the District Assembly. The Board reports on behalf of the management committee at the traditional council. The

traditional council also approves all projects that are to be carried out from the revenues generated from ecotourism.



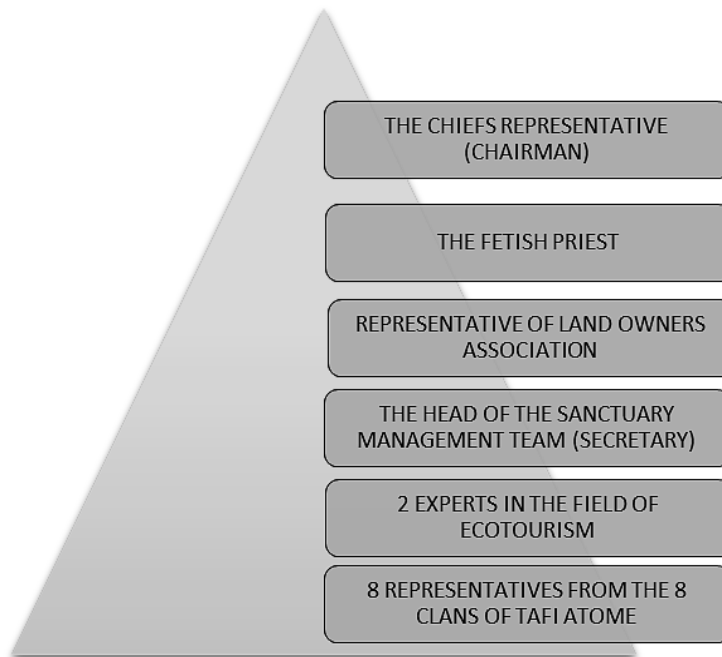
**Figure 1: Organogram of the Amansuri Resource Governance System**

Source: Source: Field data, 2019

The organogram as depicted in figure 1 is favourable to the social structure of the people of Nzema. It makes it possible for every member of the community to receive information and channel their views to the top.

In Boabeng-Fiema, the NRG system was partly facilitated by a community-based ecotourism team which comprise volunteers from the two communities. The volunteers are interviewed and trained by Ghana Wildlife Division of the Forestry Commission. To ensure equal representation, a quota employment formula of 50% to Boabeng and 50% to Fiema is implemented. The Management Board comprise: district assembly representative (the District Chief Executive) who serve as the Chairperson. The Boabeng town representative (the Boabeng Chief), Fiema town representative (the Fiema chief), The Wildlife Division of The Forestry Commission representative, the Nkoranza Traditional Council representative, the District Police Service representative, the Youth representative and the District Fire Service representative.

The Management Board of the Tafi - Atome Monkey Sanctuary as shown in figure 2 below, comprises of fourteen (14) persons



**Figure 2: The Tafi - Atome Monkey Sanctuary management Board**  
Source: Field data, 2019

Eight of the fourteen are representatives of the eight (8) clans that make up the Tafi - Atome community. The following also present a representative each to the board; the land owners association, the chieftaincy council, the fetish priests' council and the Sanctuary management team. The board also comprise two ecotourism experts who may not be indigenes but share in the interest of the community. Currently the two co-opted members of the Board are coming from the United States Peace Corps (Ecotourism Unit) and the Regional Tourism Board.

The seat of the fetish priest is justified by the fact that he is the key custodian of the TEK as well as the enforcer of traditional laws on resource governance. His seat on the Board is to ensure that all the activities of the Board concerning the Sanctuary and the Sacred grove are in accordance with the dictates of the gods and ancestors who are the true owners of the land, forest and all animals within the environment especially the sacred grove.

### **3.3 Traditional Ecological Institutions and NRG Principles**

The study assessed the Natural Resource Governance at the three resource areas by examining the implementation of programs that help to achieve four selected governance principles based on IUCN (2015) working document on resource governance. The four principles were, Transparency, Rule of law, Accountability and Participation. This was motivated by the objective 4 of the 2012 Ghana Wildlife and Forestry Governance policy which aims at promoting and developing mechanisms for transparent governance, equity sharing and peoples' participation in forest and natural resource management (GFWP, 2012). The 2012 policy employs approaches which involves consultation, needs assessment, investigation, synthesis and consensus building aimed at ensuring equity and the fair distribution of benefits and efficiency in the execution of forest management prescriptions.

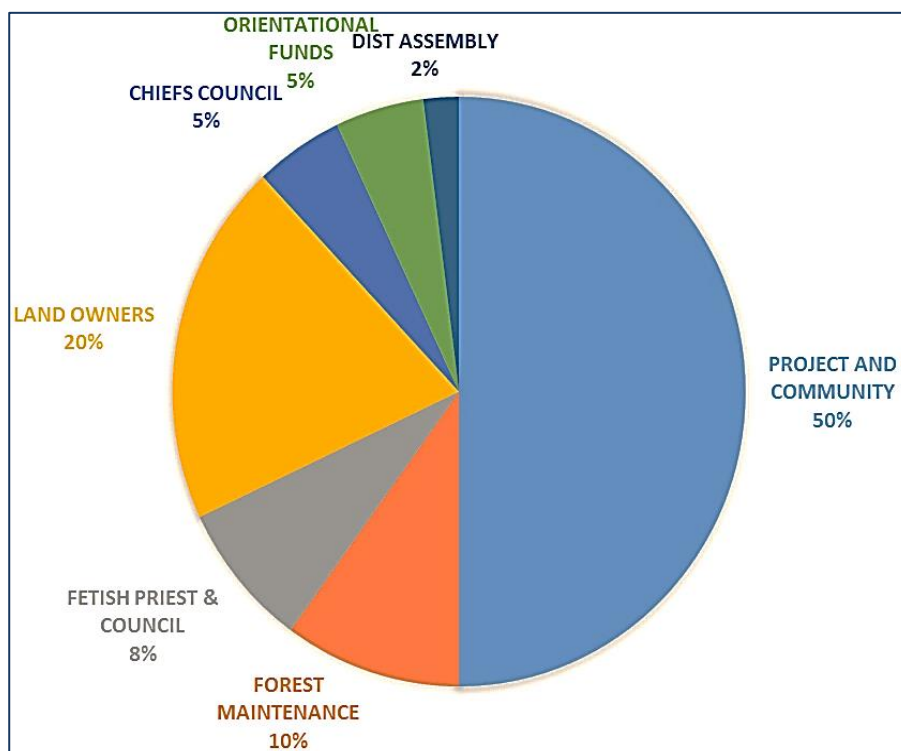
### 3.3.1 Transparency in Natural Resource Governance

Transparency in natural resource governance refers to the free flow of information on participation, access, rights and responsibility. It also incorporates the provision of information on income generation and distribution, communication channels and grievance expression models (IUCN, 2010). A transparent governance routine also provides all stakeholders with ready and true reports on resource valuation and evaluation.

The Tafi - Atome community has placed its major forestry and wildlife resource under the management of the Tafi - Atome monkey sanctuary management team. Tafi - Atome Monkey Sanctuary is a community-based tourism centre that has established procedures for operational openness and transparency. The sanctuary has a management office which doubles as the tourist reception centre as well as a public relations office. Members of the community who wish to ask any questions about the sanctuary management can easily walk in and be assisted to find answers.

Annually, the management board read its reports to the entire community at a community durbar. The report covers; achievements, challenges and revenue generated within the period. The board also uses this platform to take the views of the community on developmental projects the board plans to undertake.

The centre only issues out receipts that are produced and sanctioned by the board, it is therefore possible for auditors to monitor the revenues gained and number of the tourists received within the period.



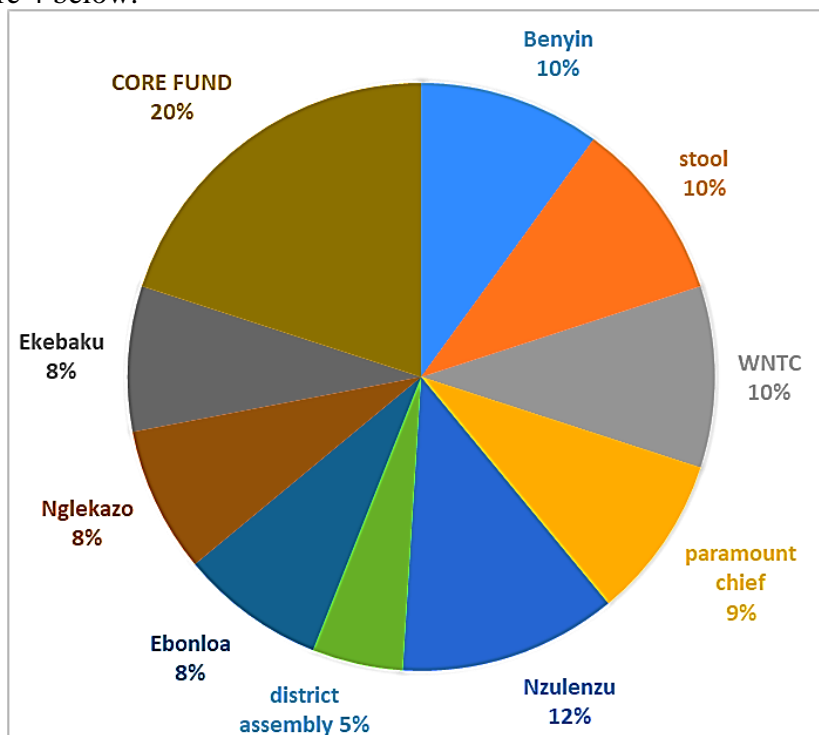
**Figure 31: Pie-Chart showing revenue percentage shares of stakeholders at Tafi-Atome.**

Source: Field data, 2019

Figure 3 shows the percentage shares of key stakeholders in the revenues generated from the Tafi – Atome monkey sanctuary. The key stakeholders and priority areas area; Project

and Community (50%), Forest Maintenance (10%), Fetish Priest & Council (8%), Land Owners (20%), Chiefs Council (5%), Orientation Funds (5 %) and District Assembly (2 %).

In the Amansuri study area, financial reports are given by management of the site every six (6) month. The Board comprise the Manager, the representatives of the six communities, the traditional council, the district assembly, the paramount chief who is the chairman. Revenue generated by the tourism management committee is communicated to the Board which takes decisions on the disbursement and approves all expenditure. The Board also facilitates auditing of the accounts and communicates earnings by the management to the communities through their representatives. The shares of the communities are as represented in the pie chart depicted in figure 4 below.



**Figure 4: Pie-Chart showing revenue percentage shares of stakeholders at the Amansuri Resource Reserve Area.**

Source: Field data, 2019

Figure 4 shows the percentage shares of the town and stake holders as follows; Benyin (10%), Stool House (Fetish Council) (10%), WNTC (10%), paramount chief (9 %), Nzulezo (12%), district assembly (5%), Ebonloa (8%), Nglekazo (8%) and Ekebaku (8%). Nzulezo receives the highest among the five communities because it attracted the most tourist and also has the highest developmental challenges due to its location on the Amansuri Lake. Aside these percentages allocated to the communities, the management board sometimes undertakes project in the communities based on their urgency. Furthermore, core fund for Project maintenance is 20% of total revenues. The Board ensures that unless there is an urgent need by a member of the community, the proceeds from the ecotourism activities are shared strictly by the approved percentages.

Transparency is ensured by making sure that the traditional custodians of the land, TEK and leadership of the people are part of all operational decision-making process in the governance of the natural resource. These persons are also tasked by the system of governance

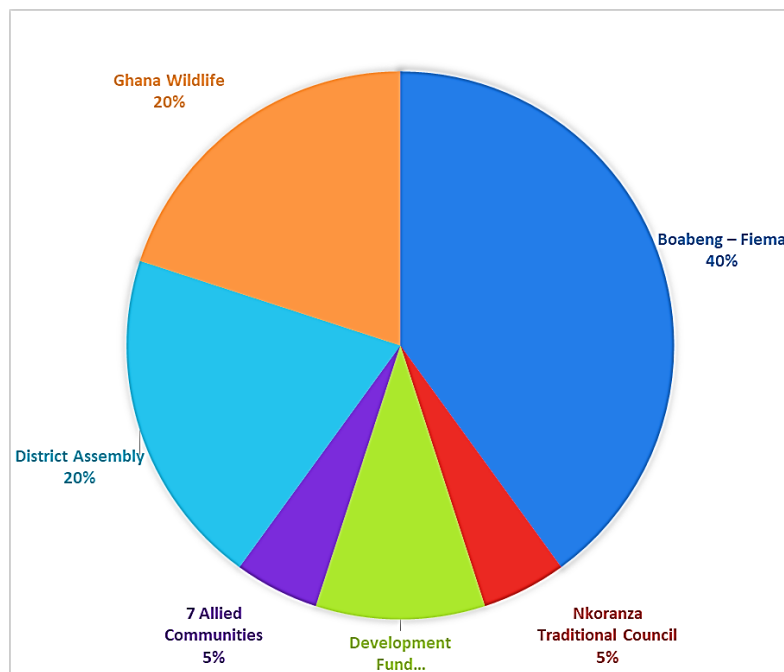
to communicate to the people on all major decisions that concern them and their environment as well as the use, exploitation and conservation of their natural resources.

At Boabeng- Fiema, the transparency of the governance of their natural resource was looked at under three main areas;

1. Transparency in Human Resource mobilisation and recruitment.
2. Transparency in revenue generation and usage.
3. Transparency in the review of governance byelaws.

Under transparency in the mobilisation of human resource and recruitments, it was recorded that, by convention, the constitution of the management committee was well communicated and most people in the communities were aware of the criteria for the selection. Furthermore, the job description of the committee is well communicated so is their length of stay in office. The management committee are appointed by the respective institutions they represent based on merit. They had a period of four years to serve on the committee. Members were not paid any monthly salaries but were giving a sitting allowance which was undisclosed.

Revenues collected are primarily used to cover administrative and management cost. Main administrative and management cost were; Maintenance cost of Sanctuary Offices and Guesthouse, Payment of Bills (water, electricity and telecommunications), Salaries of staff of the sanctuary (manager, labourers, matron, tour guides and revenue collectors), Rent for wildlife officers and administrative expenses. Profits made from internally generated revenues generated from the sanctuary were shared quarterly in the following percentages; Boabeng – Fiema (The Boabeng and Fiema Communities) 40%, Nkoranza Traditional Council (The Nkoranza Paramouncy – land owners) 5%, Development Fund (Development of sanctuary offices & guest house) 10%, 7 allied Communities (Surrounding communities: Konkrompe, Bonte, Bomini, Busunya, Akrudwa Panyin, Akrudwa Kuma and Senya) 5%, District Assembly (Nkoranza North District Assembly) 20%, Ghana Wildlife (Ghana Wildlife Division) 20%.



**Figure 5: Pie-Chart showing revenue percentage shares of stakeholders at the Boabeng– Fiema Resource Reserve Area.**

Source: Field data 2018

### **3.2.2 Rule of Law in Natural Resource Governance**

At Amansuri and Boabeng – Fiema, the bye laws governing the Amansuri resource area and BFMS inculcate both statutory and customary laws. The laws governing the use of the natural resources (River, Lagoon, wetlands and swamp forests) are products of the TEK which are a combination of Taboos, folklores and superstitious restrictions. The chief custodian of the TEK is the chieftaincy institution and the traditional priesthood.

Rule of law means equal treatment in both protection and punishment under the law. The rule of law in the context of natural resource governance means that laws governing natural resources are applied to all stakeholders in the same way, all the time. When the rule of law is operating, everyone should have the security of knowing how a law will be applied to them. A conflict between statutory law and customary law often creates a situation in which local people cannot predict how a law or rule will apply to them. In the context of natural resource governance, this can result in livelihood insecurity for people whose livelihoods depend on natural resources. The police, the Ghana Wildlife Division and the Ghana Wildlife Society all play major roles in ensuring the rule of law at the Amansuri and Boabeng - Fiema resource reserve area.

At Tafi – Atome The rule of law at Tafi - Atome monkey sanctuary is fully entrusted in the hands of traditional authority. Members of the community are constantly educated on the traditional laws and moral expectations of the elders of the community. They are also constantly reminded of their TEK - which is built on their Cosmivision which places man within the ecology as co- vital elements and not masters over other animals. Members of the community who fail to comply by the dictates of their Cosmivision and flout the rules and taboos are made to go through traditional corrective processes such as Traditional cleansing rituals, Open and public apology, Restriction from public gatherings and social occasions and Payment of fine if necessary and the culprit is capable.

The adoption of Traditional procedures is motivated by the fact that the elders prefer to treat every culprit as a family member who has erred rather than a criminal. They also believe that the chief should only refer erring subjects to statutory bodies when they flout statutory laws. The laws on the sanctuary and resource governance are traditional laws based on traditional beliefs and culture - it is therefore more prudent according to the people of Tafi-Atome to use traditional means of enforcement.

Furthermore, members of the community who flout traditional rules in the sanctuary are expected to report themselves to the right authority in order to avoid incurring curses from the gods. Where the culprit fails to report himself, members of the culprit's family are expected to report their erring family members if they get to know of the wrongdoing. This is meant to save the family from inheriting any curse from the member's action. Besides this, any member of the community can report wrong doings based on evidence gathered. Where culprits of reported crimes deny any wrong doing, they are made to swear their innocence at the Fetish and left to go. It was however reported that no member of the community had ever lied before the Fetish due to the serious consequences.

### **3.2.3 Accountability in Natural Resource Governance**

Accountability in resource governance according to IUCN (2010), is the obligation on leaders and governance players to accept responsibility and answer for their actions and inactions regarding the governance of natural resources. The study examined how formal and informal institutions as well as individuals may be held accountable (Patlis, 2004). According

to Turner and Hulme (1997), it is ideal for statutory laws to provide clear rules and procedures for determining accountability of public institutions and officials:

- Who will be held responsible for making decisions, and by whom?
- Who will be held responsible for implementing decisions, and by whom?
- What are the means for holding decision-makers and implementers accountable?

According to Turner and Hulme (1997) where the laws of governance fail to provide clear rules and procedures for determining accountability, it will be difficult for other stakeholders to hold governance institutions and officials accountable. They however proposed that, where that was the case, stakeholders could explore the possibilities of amending the rules and procedures to ensure that there is support for civil society to be able to hold NRG decision-makers and implementers accountable.

The governance systems practiced in Amansuri makes every citizen accountable to the supreme God for his/her actions. It is therefore the responsibility of the Paramount Chief who heads the chieftaincy council to ensure that everyone assigned a responsibility by nature, society or the state performs his/ her duty. The major motivation for the Natural Resource governance at the Amansuri conservation project is to generate revenue from their natural resources using sustainable extraction processes and conservation to promote ecotourism. The revenue generated from the ecotourism is used to pursue social and infrastructural development. Based on this motivation, the entire society has resolved to comply to the traditional and statutory laws on the use of their natural resources so that tourist would be attracted to come and patronise their ecotourism facilities. From the interviews and focus group discussions, much of the laws on accountability focused on the collection of revenues, the use and disbursement of revenues.

There are also clear guidelines on the processes of obtaining permit to extract resources. All persons employed are engaged to play a part in the governance process from the tour guards, community receptionist, cleaners and managers. The manager is assigning the responsibility of ensuring that all persons employed under him work according to the byelaws. Especially with regard to environmental protection, management, revenue collection and tourist management. The byelaws hold the manager accountable for the supervision of all tour guides (temporal and permanent), Tourism volunteers, Boat operators, Receptionist at the community centres and Cleaners at the tourist sites

The Board therefore takes monthly report from the manager concerning all these stakeholders. The Board is also held accountable for all activities concerning the ACID project. The Board supervises the operations of the management committee, the chiefs of the project communities and partnering agencies such as (wildlife society and microsphere). Where any of these fail to perform their responsibilities assigned to them in the byelaws, the board reserve the right and the responsibility to punish any offender using approved measures (either traditional or statutory) according to the byelaws of the ACID project. To ensure financial accountability, the accounts of the management committee are audited by an audit team selected by the board on merit and experience. The report of the audit team is made known to all stakeholders as well as the financial report.

The Ghana Wildlife Society also does an assessment of the environment and wildlife to assess the extent of exploitation, conservation and maintenance. The report from these assessments are communicated to the board and all state holders. Where a particular chief's jurisdiction is found to be deficient in ensuring efficient management of the resources in his catchment area, he is advised to do so and assisted by the wildlife society to correct the deficiency. Before projects are awarded by the board, the procurement procedures are followed and the project committee is a set-up and oversight responsibilities assigned to them. The

chairman for project committee report to the board on the progress of the project and ensures that all funds invested into the project are put to the right use.

This is very similar to what happens in Tafi- Atome but the only difference is that in Tafi – Atome the daily management of the sanctuary is carried out by the Tourism management team but not the Ghana wildlife Society. Secondly the sanctuary is under the jurisdiction of only one chief i.e the chief at the Tafi- Atome who presides over the board meetings and ensures that all institutions and stakeholders play their role effectively. In Tafi – Atome however, punishment of persons who fault in their responsibilities are mainly given traditionally prescribed punishments from the fetish priest. The disciplinary committee is headed by the fetish priest whose job primarily is to ensure that all of the traditional laws and practices regarding the protection and conservation of the natural resources are effectively followed carried out. Financial misappropriation and other misdemeanour regarding revenues, project implementation crimes are handled by the traditional disciplinary committee with statutory procedures which may require the involvement of the police if the culprit refuse to subject him/herself to the traditional processes which often involve; payment of remedial fines, public apology and a cleansing process to purge the culprit of any curses that may have come upon them as a result of their actions.

In Boabeng – Fiema, accountability is mainly left in the jurisdiction of the district assembly. The District assembly audits the accounts of the management committee every month. The district assembly also takes reports from all stakeholders and institution with regards to their responsibilities. Based on these reports, The Board take decision and evaluate the performance of all relevant stakeholders. The district assembly also supervises all projects which are undertaken in the Boabeng – Fiema community however, the project committee is formed with members coming from both communities. The Chiefs who chair the board, are mainly responsible for ensuring that members of the communities observe all the traditional laws and regulations that govern the sanctuary. The chiefs however task the clan elders and the family heads to ensure that no member of their family is found to flout the governance byelaws.

In all three study areas, parents were held accountable for the actions of their children and where the children are below the age of 18 years, parents are made to bear the consequences of the actions of their children. It was observed that parents held it a great responsibility not only to teach their children the right way to behave and act in relation to their natural resources and the environment but also parents constantly monitored the activities of the children to ensure that they do not stain the family with any curse or bring unnecessary penalty fines to the family.

### **3.2.4 Participation in Natural Resource Governance**

According to Stone (1989), community participation can be achieved if governance processes are designed such that the intended beneficiaries are encouraged to take matters into their own hands, to be active functionaries in their own development through the mobilizing relevant resources, defining their own needs, and making their own decisions about how to meet those needs.

In the examination of participation, the following areas were considered;

- a. Participation in the review and documentation of laws and bye laws
- b. Participation in setting governance objectives and developments targets
- c. Participation in the selection and recruitment of persons for management positions
- d. Participation and evaluating the governance process annually or periodically
- e. Equal opportunities for all to fully partake in all relevant governance processes

f. Participation the decision making concerning the use of revenues from the governance process.

In all three reserve areas recruitment into full time management positions such as accountants, secretaries and tour guides are openly announced to the entire community through traditional announcers. Citizens from the communities are given priority and when these applicants are shortlisted, they are interviewed in a very transparent manner. At the Amansuri resource reserve area, the process is supervised by the Wildlife Society under the authority of the management Board. The minimum qualification accepted is JHS and recruited staff are trained by the Ghana wildlife Society on basic client relations skills and service delivery routines at the visitor reception centres. The key traditional institution that facilitated the participation of all citizens in the evaluations and reformulation of governance process was the family and clan institution. Members of the various and clans could submit their views and opinions to the board through their clan and family representatives that are members of the chief's council. Proactive clan and family representatives are allowed to seek audience with the chiefs for clan or family members that have a special concern on the management and the governance of their natural resources.

#### **4.0 Recommendations**

Based on the findings and conclusions of the study, three recommendations were made. The integration of TEIs into Natural Resource Governance is most effective when the people who are owners of the common resource are more informed about all aspect of their TEK and the significance of the TEIs in driving development (Tippett, 2000). Based on the findings it is recommended that the Chieftaincy Councils of the communities initiate a project to compile and document the TEK of their communities. This document will help traditional and formal organisations such as the schools, youth groups, and wildlife and conservation organisation to educate their members on the true ecological knowledge of their communities. From the study it was realised that, in the absence of an official document on the TEK of the three study areas, the people are more likely to accept distortions of some aspect of the TEK which are mainly shared orally. Additionally, if TEK is not documented certain critical TEK such as knowledge of some herbal medicines, wildlife conservation strategies and traditional agricultural technologies may be lost over time.

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