

# COSMOVISION AND NATURAL RESOURCE VALUATION – EXPERIENCES FROM SELECTED RURAL COMMUNITIES IN GHANA

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## Key Words

*Commercial, Cosmovision, Ecological, Natural Resource, Spiritual, Socio-Cultural, Valuation*

## ABSTRACT

The study explored the nature of the Cosmovision and its implication for natural resource valuation in three traditional communities; Buabeng - Fiema, Tafi - Atome, and the Amansuri in Ghana. The specific objectives were to construct the cosmovision for the three communities, identify their natural resource valuation system and identify their resource valuation priority scale and utilization framework. The study employed a multiple-case study approach using a qualitative study design. Data collection was done by interviewing, focus group discussion, and observation. A combination of convenience and purposive sampling were used to select the key respondents and discussants. Qualitative data analysis involved thematic analysis, discourse analysis, and interpretative phenomenological analysis. The study revealed the three study areas had three distinct cosmovision but their cosmovision shared common features in spiritual supremacy and a common ecological status for humankind. Additionally, resources were valued based on their ecological services with their spiritual value and commercial values being the highest and the least on their value priority scale respectively. The study concluded that traditional societies valued resources based on their cosmovision and made their decisions on the use of resources based on their natural resource valuation scale. The study recommends extensive documentation, review, and education on cosmovision in the three communities to improve communal participation in endogenous development processes.

## 1 INTRODUCTION

Cosmovision is a complex view or understanding of the world especially with the view of time and space and in relation to human beings. For most African societies, the philosophy of traditional Ecological Knowledge is embedded in the African cosmovision which is based on the interconnection between the natural, human and the spiritual worlds (Millar, 1999). The Shona world view, for example expresses that, the natural world provides a dwelling place for the spirits and sends messages from the spiritual world to the human world (Gonese, 1999). Gonese, also posits that the spiritual world provides direction, chastisement and blessing to the human world. These philosophies, therefore suggest that, humankind must relate to both the natural and the spiritual world in order to develop a balanced ecology. Millar (1999) also reveals that in the general traditional African worldview, natural resources are not just a production factor with economic importance but are measured as major elements within in the purity of nature.

The environmental value of biodiversity can be found by examining each ecosystem process and identifying the ecosystem services that result (Shani, 2006). The value ascribed to natural resources in an ecosystem are dependent on the cosmovision of the holders of the resources as well as the users of the resource. The social value of biodiversity includes aesthetic, recreational, cultural, and spiritual values (Primack, 2010). Primack further states that, economic value may be considered as consumptive use value, which is related to natural products that are used directly for food, fodder, timber, fuel wood etc. Productive use value is assigned to products that are commercially harvested and marketed. Additionally, ethical values may be related to biodiversity conservation based on the importance of protecting all forms of life. The philosophy for this type of value is that all forms of life have the right to exist on earth. According to Primack (2010), aesthetic value is derived from the beauty of nature. Primack (2010) also states that, non-consumptive use value refers to all of the "functions"

or "services" of natural systems that were not extractive in nature.

The utilisation of natural resources may be categorised as conservation, preservation or otherwise based on the motivation and limitations of extractive methods and processes. Luke (2002), describes conservation as the sustainable management of natural resources including wildlife, water, air, and earth deposit. According to Leslie & Glazier (2016) conservationists and preservationists support the protection of nature for purely human-centred reasons. According to Leslie and Glazier, advocates of preservation, however, assume a less human-centred attitude to the protection of natural resources, placing a value on nature that does not relate to the needs and interests of human beings. According to Luke (2002), deep green ecologists argue that, ecosystems should be preserved irrespective of their utility to humans, and even if their continued existence would prove harmful to humans. This follows from the ecological belief that every living thing has a right to exist and should be preserved.

Buabeng – Fiema, Tafi – Atome and Amansuri communities were selected as the study areas due to the fact all three communities employ traditional ecological knowledge institutions and processes to facilitate local natural resource governance (Blankson, 2020). Studies such as Ntiemoa - Baidu (1995) and Attuquayefio & Fobil, (2005), Afenyo (2012) and GWS (2003) have examined the blend of traditional and modern conservation systems at Buabeng – Fiema and Tafi – Atome however, empirical evidence on the cosmivision, and resource valuation in the Buabeng – Fiema, Tafi – Atome and Amansuri resource areas are lacking.

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 cosmivision are often not welcomed and thus ineffective in ensuring sustainable development. To develop resilient policies that will promote sustainable resource governance, there is the need to understand the cosmivision of the communities involved and appreciate the traditional resource valuation and utilisation framework.

The main objective of the study was to explore the cosmivision and natural resource valuation at Boabeng– Fiema, Tafi – Atome and Amansuri resource areas. The specific objectives were to examine the role of cosmivision in the valuation, prioritisation, and utilisation of natural resources in the three study areas.

## METHODOLOGY

The philosophical assumptions underlying this study are Afrocentrism and Interpretivism. The study adopts the Afrocentric and Interpretivist approach because it sought to explain cosmivisions and traditional resource valuation which are deeply embedded in African cultural beliefs, practices, knowledge and scientific concepts which are subjective in nature (Asante, 1990). The qualitative study design was employed in this research because of its ability to elicit in-depth views and perspectives of the participants (Yin, 2003). The multiple - case study design was used for the research. According to Yin (2003), a multiple case-study is an empirical inquiry that investigates similar or diverse phenomenon within their individual real-life context. 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 target population of this study were the key persons involved in traditional resource governance and citizens of Amansuri, Boabeng - Fiema and Tafi – Atome. Data collection was done through interviewing, group discussions and observation. Interview guides, group discussion guides and observation checklists were designed based on available literature on traditional cosmivision and natural resource valuation. Response validity was ensured by reviewing transcribed responses through validation workshops. Finally, triangulation techniques such as having several interviews, group discussions and observations in each community was done.

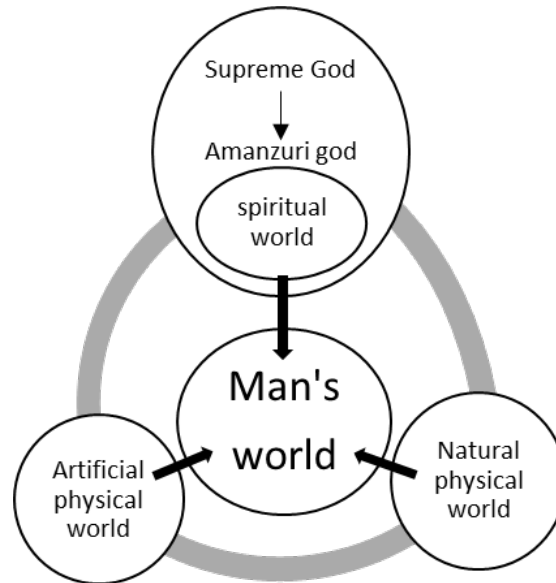
Data processing was conducted using techniques such as mind mapping to reduce the data and organize data into themes based on the objectives and the conceptual framework. Data was analysed using interpretative phenomenological analysis (IPA). IPA, according to Palmer (1969), is more appropriate if a study needs to explore in detail how participants make sense of their personal and social world. 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 preferred to be anonymous.

## FINDINGS AND DISCUSSIONS

### The Cosmovision of the Amansuri Resource Area

The Cosmovision of the people of Amansuri (West Nzema traditional) as deduced from the interview with the Chief's representative, the clan elder and the Fetish priest, is a hybrid cosmivision which has adopted some foreign concepts as a result of their exposure to, and relationships Europeans, Ivoirians, and other close neighbours. Their cosmivision has three overlapping worlds: the spirit world, the natural physical world, and the artificial physical world. There is however a linkage between the three worlds with the spirit world being the domineering world. The spiritual world is the largest world according to the fetish priest and it can control all activities in the natural physical world and the artificial physical world.

The spiritual world as shown in *Figure 1* comprises the supreme God who is Omnipotent, Omniscient and Omnipresent with limitless power and knowledge. The supreme God, according to the people of West Nzema Area, communicates to mankind through the gods and ancestors and provides mankind with the wisdom to create things, farm and invent things.

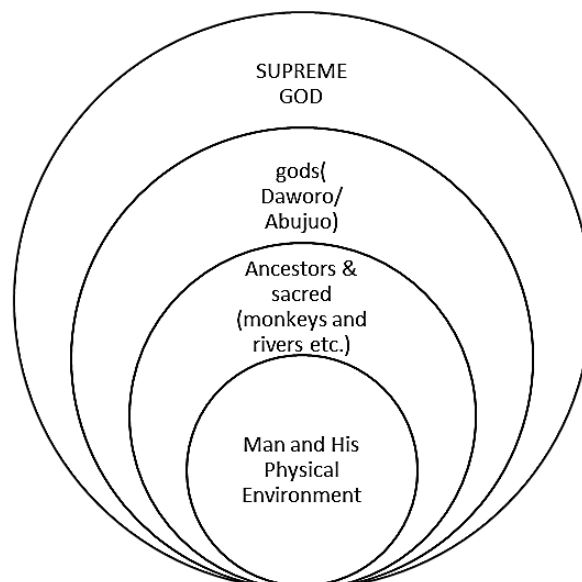


**Figure 1: The Cosmovision of the Amansuri Resource Area.**  
 Source: Field data 2019.

The Fetish Priest of Amansuri stated in the interview that, “the spiritual world is habited by the Amansuri god who is deemed as the mediating divinity between the supreme God and mankind”. The Amansuri god is a river god with domineering authority over the Amansuri River, Lake, Lagoon, surrounding villages, wild animals, and the estuaries. According to the Fetish Priest, their belief in the Supreme God is paramount. Thus, the people believe that the Supreme God has blessed the West Nzema Area with the Amansuri god to guide, guard and protect them. They also believe the god also has the ultimate plan for the development of their community.

**The cosmovision of Boabeng- Fiema people**

The cosmovision of Boabeng- Fiema people based on the narrations of the Fetish Priest of Boabeng and the Fiema Chief’s representative, places the survival of the human world on its linkage with the spiritual world. The physical world according to them, is sustained by special messages and revelations from the spiritual world. According to the fetish priest of Boabeng - Fiema, the Boabeng-Fiema cosmovision is based on the belief that, “messages from the spirit world are transmitted through sacred organisms like the monkeys”. He added that, sacred individuals like virgins and any living organism that avails itself to the Dawora of Boabeng or the Abujuo of Fiema gods could be used as a medium of communication. According to the fetish priest of Boabeng, the people also believe in the Supreme God (Ɔbɔ Adee) the creator who they believe created the Dawora and Abujuo gods. They also believe that, for these sacred animals and natural structures to perform their functions as intermediaries, “we need to create a conducive habitat in order to get the blessing of the gods”. He further emphasised the need for ecological diversity, environmental sanity, and cleanliness when it comes to building a spiritually safe society.



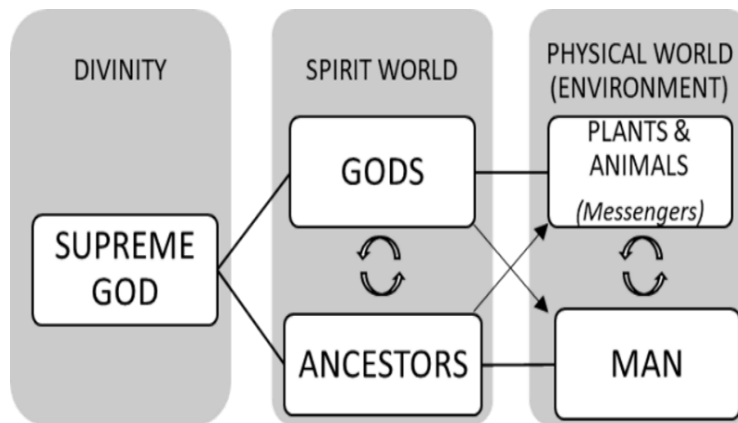
**Figure 2: The Cosmovision of the Boabeng - Fiema People.**  
 Source: Field data 2019

The Boabeng – Fiema Cosmivision also affirms that, if nature is degraded, these sacred animals will migrate to other places, and will no longer bring messages to the humans nor transfer blessings to the land. This was confirmed in the interviews with the fetish priest of Boabeng and the Boabeng chief's representative. The fetish priests added that, the Boabeng and Fiema communities also hold sacred the Daworo and Abujuo Rivers and forbids the pollution of those rivers. In an interview with a representative of the women group and the youth leader, they confirmed that it is a taboo (Akyiwade3), for a woman in her menstrual cycle to visit the river. They added that, indigenes are also forbidden from visiting the river with any black attire. According to the fetish priest of the twin towns, the bearers of the Daworo and Abujuo fetish at two different occasions independently prophesied to the people of Boabeng and Fiema respectively, that the Monkeys will bring blessings to the land and will draw men from all over the world to visit them. To fulfil this prophesy, the people were to desist from killing or harming them. The people were also charged by the gods to protect the habitat of the monkeys, the forest, and the rivers to preserve their own survival.

The Chief of Fiema in an interview stated that, “it took hundreds of years before the we saw the first white man visiting the townships; but today Calgary University, Canada has made the Boabeng-Fiema Monkey Sanctuary a research site bringing students annually to conduct research in Anthropology, Conservation and Biodiversity”. It was also observed and noted from the guest records books that several international tourists and local tourists visit the sanctuary on daily basis all in fulfilment of the promises of the two fetishes. According to the narrations of the chief's representative and the Fetish priest, the cosmivision of the Boabeng – Fiema as shown in *Figure 2*, is founded on the knowledge that, man is a constituent of his environment which is a continuum of the physical and spiritual realms. In addition, man is not lord of his environment but a steward who has responsibilities to ensure the harmonious co-existence of all other living organisms. Humans are only permitted to kill and destroy other organisms if permitted by the supreme God through his mediators. The physical world, according to the cosmivision of Boabeng – Fiema is a subsection of the world of the ancestors and sacred mediators. Beyond the world of the ancestors is the world of the gods (Daworo and Abujuo) who are the direct mediators and representatives of the Supreme God. According to the fetish priest, it is the belief of the people of Boabeng – Fiema that, the supreme God speaks to humankind through the gods who decide on the medium through which to communicate directly to humankind. It can therefore be said that the ancestors and the sacred beings such as animals, trees, rivers, and dwarfs are all messengers through which the gods relate to humankind. Furthermore, the fetish priest is the direct representative of humankind that has the direct capacity to communicate to gods, ancestors and the sacred beings through approved rituals and incantations.

**The cosmivision of the people of Tafi- Atome**

The cosmivision of the people of Boabeng – Fiema was constructed from the narrations of the Tafi - Atome chief's representative, the fetish priest's assistant and the landowners' representative. The cosmivision of Tafi- Atome as depicted in figure 3, places the universe into three main dimensions: the world of divinity, the spirit world and the physical world (environment). According to their cosmivision, all-natural resources dwell within the physical world (environment) which is under the domain of humankind. The world of divinity is under the domain of the supreme God who also has supremacy and influence over the two other worlds. The spirit world is under the domain of the gods and ancestors. The Fetish priest's assistant revealed in the interview with him that, two spirit entities intervene in the affairs of the physical world by communicating directly or indirectly to humankind through plants and animals that serve as messengers to the gods and ancestors.



**Figure 3: The Cosmivision of the Tafi – Atome.**  
 Source: Field data 2019

In the interview with the Tafi - Atome chief's representative, he stated that, the fetish priest of Tafi - Atome is the intermediary between the village residents and the idol. According to him, “the monkeys are associated with the idol and it is a taboo to kill them, harm them or destroy their habitat in any way”. He further added that, it is also a taboo to rear or keep as pet, animals such as dogs in the community since they are considered enemies to the monkeys. A Monkey Festival which is meant to celebrate the monkeys takes place every February. A major aspect of the festival is conducted by the fetish priest who kills a goat and pours libations at the forest shrine. This ritual is meant to thank the Idol for its continuous protection for the people and to seek the blessing of the idol and the ancestors for the ensuing

year.

From the group discussions and the interview with the Chief's representative, it was evident that the people of Tafi - Atome see humankind as the domineering entity in the physical world but does not make him the master of the world of man - this is because man's supremacy in the physical world is subject to the dictates of the spirit world and divinity. This assertion was revealed by the assistant to the fetish priest. Based on this cosmivision, the people of Tafi-Atome, from the discourse analysis of the group discussion, do approve the use of plants and animals for food by humankind, however, the privileges given to mankind within sacred forests are restricted. It is therefore a taboo for the people to harvest or hunt any animal in the sacred forests except and herbs for medicinal purposes. The collection of firewood within the sacred forest is also not allowed since the people believe that dead wood fertilizes the soil as well as serves as food and habitat for other organisms. These restrictions were revealed by the Chief's representative during the interview.

The assistant to the fetish priest revealed that, animals that are being pursued for game are spared once they enter the sacred forest. The sacred forests therefore provides a haven for endangered species and threatened animals within the Tafi- Atome community. The cosmivision of the three study areas were found to be similar to the Karanga cosmivision, and other cosmivision of African communities. In all the three cosmivision, the relationships between the social world, the natural world, and the spiritual world are key to the survival of humankind (Hooft & Van't 2008). The expressions of the people and their appreciation of the three distinctive worlds (social, spiritual, and physical) that make up the world of mankind could be described as the foundation of their traditional ecological knowledge and natural resource valuation. The linkage between the cosmivision of the communities their TEK and natural resource valuation is strongly supported by the writings of Hooft & Van't (2008) which emphasise the dependence of TEK on cosmivision.

The cosmivision of the three communities did not show any degree of restrictions based on gender. Women and Men had no special privileges in the hierarchy of their cosmivision unlike is seen in the northern part of Ghana where females are not permitted to perform spiritual rituals such as sacrifices (Apusigah and Opore, 2007). The cosmivision of the Amansuri study area, showed a clear appreciation of the artificial world. Such adaptation is similar to the Ugandan cosmivision which is described as a hybrid of indigenous beliefs and western scientific knowledge (COMPAS (2007). The cosmivision of Boabeng – Fiema also exhibited a uniqueness in the marriage of two gods belonging to two different towns and culture. The marriage of the Abujuo and Dawora gods according to the narration of the Fetish priest of Boabeng- Fiema has united the two towns and merged their beliefs and understanding of nature.

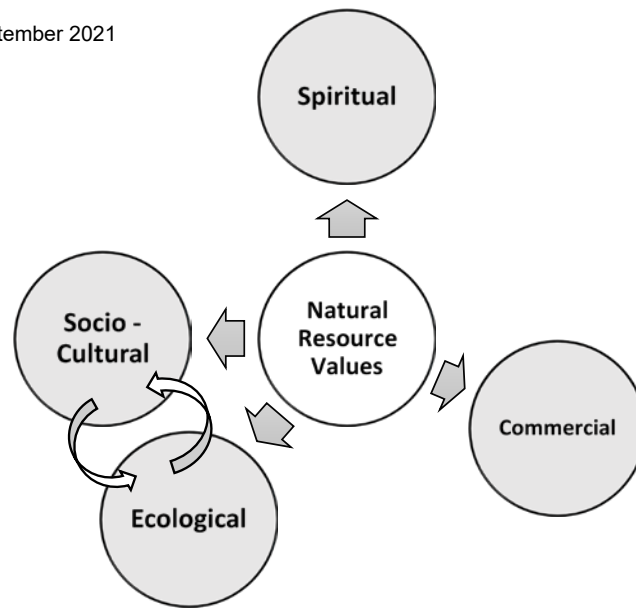
The unity of the spiritual entities has resolved any potential conflicts between the two towns despite their historical and ancestral differences. This confirms the writings of (Emeagwali, 2003) that supports the principle that a group of people can be united when they have a common worldview and share similar ecological reservations on the use and conservation of their natural resources. Theoretically, it can be deduced from the cosmivision and the history of the three communities that their use and management of their resources for development is strongly tied to their history and cosmivision. In both Boabeng – Fiema and Tafi- Atome, the interviews with their fetish priests and fetish assistant respectively revealed that the gods frown on any form of extraction from the sacred forest, hence, the only way of using the forest and its wildlife to promote development is through ecotourism. This is a clear evidence that supports the writings of Ohmagari and Berkes (1997) that endogenous development is deeply rooted in the history and cosmivision of a group of people and the success of natural resource governance can also be tied to the history and cosmivision of the people concerned (Laudari,2010).

#### **Natural resource valuation and prioritisation**

From the interviews and group discussions conducted in the three study areas, it was revealed that the people valued their resources based on their cosmivision. Four distinct values were ascribed to their natural resources.

These were: Spiritual value, Ecological value, Socio-cultural value, and commercial value. In Tafi – Atome however, the people saw the socio-cultural value to be embedded in the ecological value since humankind was an integral part of the ecology and all non-commercial used of nature by human beings were considered ecological service.

From the interviews and group discussions, it was deduced that the people of Buabeng – Fiema, Tafi – Atome and Amansuri valued their natural resources based on the benefits they derived from them. In addition to that to the benefits derived from the resources, the Fetish priests when asked on the criteria for evaluation also stated that everything created by God is for the good of human beings and for that reason, there were no bad or good resources. It was also deduced from the interviews and discussions that, the value of natural resources was ascribed by divinity through the god's and ancestors to the priesthood.



**Figure 4: Traditional Natural Resource Values**  
Source: Field Data 2019

### Spiritual Value

From the interviews conducted, it was revealed that in all three study areas, spiritual value was ascribed to resources through divination. Spiritual value was ascribed to natural resources that offer spiritual protection, connect people to their ancestors, provide a dwelling place for the gods and ancestors, serve as messengers to the gods and the divinities or serve as a medium of worship of the supreme God. Furthermore, resources that are used for spiritual edification or used in performing spiritual rituals were ascribed spiritual value. In the three communities, it was observed that, this value was assigned to resources such as special trees and rivers that are being worship for spiritual blessings, rocks and hills that are considered as dwelling places for gods and ancestors as well as biotic elements that are considered as spiritual guardians of farms and homes. In all three study areas, the Spiritual value of a natural resources were ascribed by the fetish priests who are considered according to the Fiema Chief to “have a third eye to see and perceive these spiritual characteristics of these resources”. Resources that are ascribed spiritual values are often preserved and not harvested, extracted or exploited for any commercial purpose unless for the purpose of ecotourism. The spiritual value of natural resources is given first priority in decision making on resource utilisation. All other values ascribed to the same resource are considered secondary in planning and development. Resources that are ascribed spiritual value are considered as sacred in all three study areas.

### Ecological Value

It revealed from the interviews and group discussions from Buabeng- Fiema and Amansuri rural communities that, ecological values were ascribed to resources that provide ecological functions or services. These services and functions included biological importance of natural resources. Additionally, this value was ascribed to resources that served as habitat for other animals, provided oxygen for other animals, or served as food for other living organisms. Furthermore, resources that are used for herbal medicines, biological control of pests, pollination, controlling erosion and fertilising the soil naturally are also ascribed ecological value. From their description of ecological value, one could be said to be harnessing the ecological value of plants if he grows trees or plants to fence homes or farms, to provide shade and to provide food for his family and other animals. The ecological value of these resources are given second priority in the planning and development and utilisation of natural resources. Resources that have ecological value according to the fetish priest in Amansuri are “irreplaceable and for that reason are considered only next to sacred”. These resources are thus given high level protection from over exploitation.

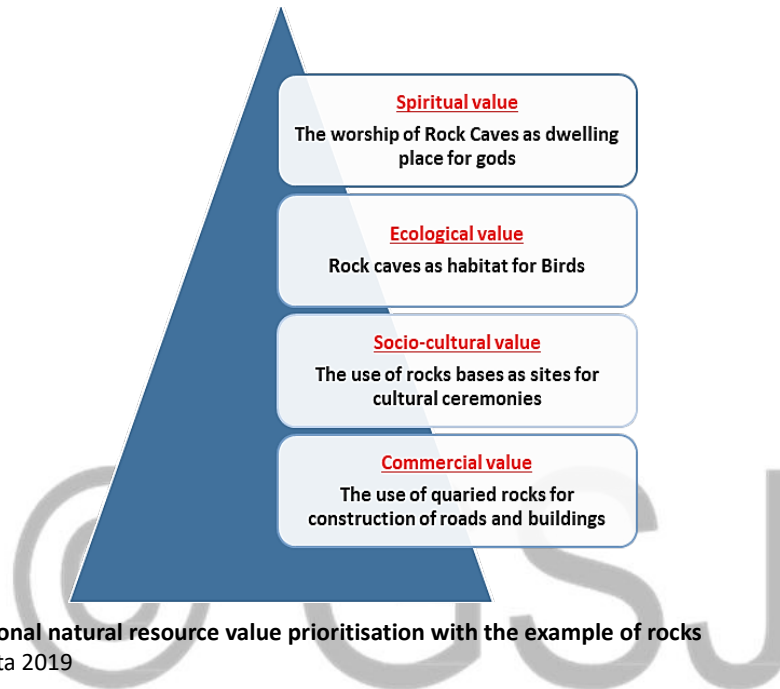
### Socio - cultural value

The study revealed that, resources that give social value and identity such as totemic organisms and other resources used as cultural symbols of identity in social functions were ascribed socio-cultural value. This value is also ascribed to resources that are used in cultural ceremonies as natural clothing accessories and cultural jewellerys and ornaments. From the focus group discussions in Tafi - Atome, it was revealed that some resources such as huge trees and beautiful rocks could be ascribed socio- cultural value because they offer the owners social status and also provide aesthetics. It was therefore deduced from this that aesthetic value of natural resources were considered as socio-cultural. This assertion was also evident in the group discussions in Boabeng – Fiema and Amansuri as well. In Tafi – Atome however, Socio – Cultural value of resources were also considered as ecological value. According to the traditional priest of Tafi – Atome, socio – cultural values of resources were ascribed because of the benefits that human beings derive from these resources which were not spiritual or monetary in nature. For the people of Tafi – Atome, human beings were not any different from other animals when valuing resources even though human beings are the main stewards of nature. In the valuation of resources at Tafi – Atome, all resources that provide benefits to all living organisms that were not spiritual or financial in nature can be ascribed ecological value. Socio – ecological value of natural resources are prioritised third to spiritual and ecological value of resources. Such resources are also considered partially irreplace-

able and hence are given some protection from over exploitation.

### Commercial value

In all the three study areas, resources were ascribed commercial value based on the monetary value ascribed to that resource on the local or global market. This value is considered as deficient because according to the priests, the commercial value of resources often looks at the use of the resource by other people who may not appreciate the full worth of that resource. Additionally, commercial value of resources often does not cover the cost of damage caused in the process of extracting that resource. In Amansuri, the priest stated that, “no matter how much timber is priced, one can never pay for the soul of a tree that is lost when then tree is cut down to produce timber”. It was further revealed from the interviews that economic value is often determined by the users of the resource who are often outside the community. From the group discussions it was revealed that poor commercial valuation of resources often leads to extreme resource extraction and sometimes resource over exploitation. The commercial value of natural resources are given the least priority.



**Figure 5: Traditional natural resource value prioritisation with the example of rocks**  
Source: Field data 2019

### Natural Resource Utilisation

The study revealed that natural resource utilisation is strongly tied to the value ascribed to the resources. This is depicted in figure 6. Resources that are ascribed spiritual and ecological values are preserved. Preservation in three study areas attempts to maintain the resources in their present condition without extracting the resources from their natural location. With the preservation of natural resources, farming, industrial use, housing use and other human developments within a preserved habitats are all banned and prevented. For resources that are ascribed spiritual and commercial values, the resources were preserved and only exploited strictly for ecotourism where people are only allowed to observe but not take anything from the natural environment.

Resources with commercial and socio – cultural values are conserved and used commercially for ecotourism. For such resources, their commercial value is only exploited through ecotourism where tourists are made to pay to visit these resource sites and observe without extracting them from their environment. Resources that are ascribed with socio- cultural and ecological values are conserved and sometimes engaged in ecotourism activities. Conservation of natural resources in the three study areas usually focuses on the needs and interests of human beings, for example the biological, economic, cultural, and recreational requirements of the citizens. In conservation however, there are taboos and traditional restrictions on the extent to which those resources could be harvested or extracted from the environment.



**Figure 6: Traditional Natural Values and Utilisation Chart**  
Source: Field data 2019

As shown in Figure 6, resources that are ascribed spiritual, ecological, commercial, and socio-cultural values are preserved and employed only in ecotourism. Through ecotourism these communities are able to raise capital from tourists to develop their communities. In all three communities there were several projects that were being financed from financial gains from Tourism.

### Conclusion

The cosmovision of the three studied communities all place the spiritual world as the central frame of existence which controls the physical world of human beings. Based on this, the people of the three communities considered the spiritual value of all resources as the most important in making resource management and governance decisions. From the findings, the three communities, despite their ascription of spiritual, ecological and socio-cultural values to critical resources have sought the avenue of ecotourism as a means of deriving commercial benefits from these resources. The Buabeng- Fiema and Tafi – Atome monkey sanctuaries as well as the Amansuri Resource Conservation Sites have become three of the most visited ecotourism sites in Ghana and provided substantive revenues for community development. These developmental gains from ecotourism have confirmed that rural communities do not need to extract their resources or over exploit them commercially to develop their communities.

### Recommendation

From the findings of the study, the traditional leadership and governance stakeholders must engage the citizenry in the documentation and education of their cosmovision to encourage communal participation and improve confidence in the natural resource governance system. I also recommend timely review of the valuation of natural resources in order to identify viable new resource utilization options to facilitate revenue generation, social and infrastructural development

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