



Ghana's Bia Conservation Landscape: A Convergence of Biological and Cultural Diversity

Yaw Osei-Owusu¹ and Vincent Awotwe-Pratt²

(1) Country Director, Conservation Alliance International, Ghana, yosei-owusu@conservealliance.org

(2) Senior Partner, BHA Africa, Ghana Office, 5 Odum Street, North Dzorwulu-Accra, Ghana, vawotwe-pratt@conservealliance.org

■ Abstract

Most rural communities in Ghana have protected places because they are considered sacred, unique, or were recognized as aesthetically beautiful. The Bia Conservation Landscape is made up of both reserved and off-reserve lands. While the ownership of the reserved areas is vested in the President of Ghana, the Sefwi Traditional Stool exercises jurisdiction over the off-reserve areas. The Sefwi landscape is one of the few where Western and traditional religious practices are given equal prominence. Taboos, customs, and other traditional norms purported to regulate the use of natural resources are observed to show reverence to the forests. The landscape is considered the cocoa production hub of Ghana, accounting for about 40% of the national cocoa output. This landscape is the meeting point for rich biological diversity and a traditional ecological knowledge system, passed on through language and practices by the indigenous communities. The unique natural, cultural, and historical features constitute enormous potential for ecotourism development and justify the investment into the continued protection of the landscape.

KEY WORDS: biodiversity, culture, heritage, natural resources

■ 1. Introduction

During the past decade, progress has been made in understanding the complementarity of cultural diversity and biodiversity. A significant number of areas with high cultural diversity are also areas of high biodiversity; the convergence of biological and cultural diversity extends far beyond the so called 'biodiversity hotspot' areas. It is not only the quantity, but also the quality of biodiversity, that depends on the presence of cultural diversity and vice versa (Poker and MacDicken 2016). Maffi and Woodley (2010) confirmed that age-old traditional ecological knowledge has been of significant importance in the management of the rich biological resources of landscapes. Cultural practices therefore draw on a defined suite of resources within a local environment in a manner that is both efficient and sustainable.

Ghana is endowed with rich biological and cultural heritage. The country's forest zone is part of the Guinean forests of West Africa, one of the world's 34 biodiversity hotspots. It harbors rich floral and faunal species, including over 2,974 indigenous plant species, 504 fishes, 728 birds, 225 mammals, and 221 species of amphibians and reptiles. Three species of frogs, 1 lizard, and 23 species of butterflies have been reported to be endemic (CI-Ghana 2002).

The interpretation of nature by the various ethnic groups not only determined local interactions with the environment but also fashioned the practices for the management of natural resources (Sarfo-Mensah and Oduro 2007). Ghana has about three score ethnic groups, each characterized by peculiar cultural values and traditions that give each a specific identity. The strong sense of identification with the environment provides

the communities with the tools to define their culture. Recognizing the value of integrating biodiversity and culture, Ghana established systems such as the Community Resource Management Area (CREMA), Community Forest Committee (CFCs), and the National Community Water and Sanitation Program to enhance the use of traditional knowledge and practices in natural resource management at the local level (World Bank 2016; Wildlife Division 2000).

1.1 Overview of the heritage site

The Bia Conservation Landscape¹ consists of a network of forest reserves and off-reserve lands (Figure 1). The landscape has a total area of 7,745.5 km² and lies between longitude 3° 02' and 3° 10' West and latitudes 6° 32' and 6° 40' North in the Juaboso and Bia districts of the Western region of Ghana (Forestry Commission 2007). Bia was created in 1935 and named after the Bia River which drains the area. As a move towards conserving one of Ghana's last remaining remnants of relatively untouched forest, with its full diversity of wildlife, the Bia forest, covering an area of 77.7 km², became a National Park in 1974 (Forestry Commission 2007). The park was later designated as a Biosphere Reserve in 1995, by UNESCO, to further secure the forest's rich biological resources and the culture of the neighboring communities, expressed in the reverence for the forest (Forestry Commission 2007). This forest ecosystem hosts significant populations of unique floral and faunal species, including exceptionally high emergent trees, over 62 species of mammals, and 160 bird species (CI-Ghana 2002). The integration of some of the elements of the rich cultural practices of the fringe communities, including adherence to taboos and norms, into the management of the forest largely account for its continued protection.

1.2 The agricultural landscape

Agriculture is currently the dominant economic activity, which engages about 72.4% of the population (MOFA 2012). In recent times, however, the service and commerce sectors have assumed considerable importance, due to the number of people moving to the area. There are about 380 towns and villages, with an estimated population of 573,020 persons, fringing the forest (MTDP 2001) and these people hold a stake in the continued existence of the forest.

The ecosystem services from the forest, the bimodal rainfall pattern, and the fertile soils largely account for the high agricultural production within the landscape (Asare 2016; Aju 2014; Asare 2005). As a result, the area is considered the cocoa production hub of Ghana, accounting for about 40% of the national cocoa output (GoG 2010). There are an estimated 300,000 smallholder farmers, who cultivate about 1-2 hectares of land using traditional practices to cultivate cocoa and food crops (MTDP 2001).

Traditionally, cocoa is planted inside forest areas where logging previously occurred. The remaining trees provide shade to the cocoa trees, composing a generally biodiversity-rich agroforestry system. Food crops are often intercropped with cocoa until the canopy is formed. In addition to improving the soil and water conservation, agroforestry systems have the potential to maintain higher levels of biodiversity and greater biomass than lower diversity crop or pasture systems (Sistla et al. 2016). The age-old cocoa agroforestry practice, that is common among the Sefwi people, an ethnic group that is part of the Akan, one of the major ethnic groups in Ghana, largely accounts for the sustainability of the cocoa sector in the area.

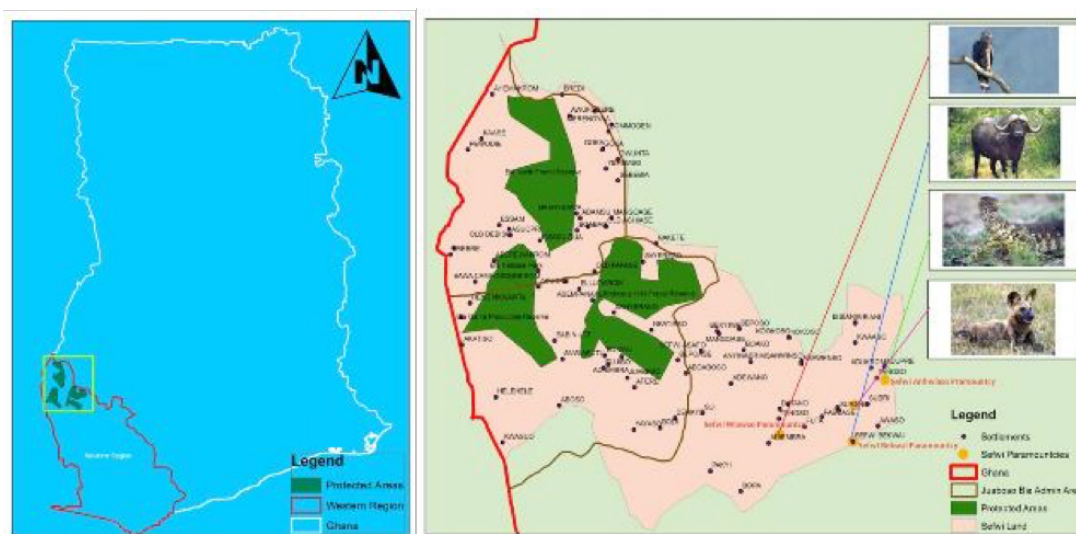


Figure 1. Location of the Bia Conservation Landscape (Conservation Alliance, 2015)

¹ This includes the Bia Conservation Area (made up of the Bia National Park and the Resource Reserve), the Bia North Reserve, the Krokosue Hills Forest Reserve and the neighbouring off-reserve areas.



Figure 2. Thatched roof housing (left Conservation Alliance 2002 and right Kick off Ghana 2012)

■ 2. Significance of the heritage place, including natural and cultural values

Today, protected landscapes are increasingly expected to deliver a wide range of cultural, social, ecological, and economic benefits in addition to maintaining ecological processes and providing space for natural evolution (CBD 2008). While the importance of the Bia landscape has been acknowledged, the agreed upon extent of its significance differs widely. At the national level, the forest is recognized for its high biodiversity and the unique species it harbors, while at the local level, the fringe communities depend on the forest for water supply, food, medicines, firewood, household equipment, and building materials. Although the extent of the forest's resource values varies, there is a general agreement on the ecological, cultural, and spiritual significance of the forest (CA 2013). The diverse, but critical, services delivered by Bia justifies its continued protection.

2.1 Ecological significance of the landscape

A closer look at the Bia National Park reveals a thick, green, closed canopy consisting of the three strata of a pristine forest. All of the stories provide the habitat and conditions that ensures the continual survival of the diverse life forms in the reserve. Recent studies have established that the landscape has a fairly stable elephant population density of about 130 elephants (CA 2013). This is in addition to the presence of a diverse population of other

faunal and floral species, that have contributed to making the landscape a favorable site for research and a nature loving destination. The range of non-timber forest products (NTFPs), which provides an important source of livelihood to the rural communities, includes mushrooms and snails. The physiology of the forest enhances the environmental resilience of the surrounding areas, in terms of its ability to withstand environmental stresses, such as droughts and unfavorable temperatures (Cowling 2008; FC 2007).

2.2 Cultural and spiritual significance of the landscape

Physically and mystically, forests have defined the environment of communities in this region throughout time (Tabush 2010). Tangible and intangible, forests feature in all aspects of culture, such as language, history, art, religion, medicine, politics, and even social structure, it actually defines the Sefwi people's sense of identity.

The Sefwi state is one of the few landscapes within Ghana where Western and their traditional religious practices are given equal prominence (Kwekudee 2013). The people of Sefwi Wiawso traced a call for a "return" to normative Judaism by Aaron Ahomtre Toakyirafa, a community leader who is said to have had a vision in 1976. In response to this 'vision', the Sefwi state strictly adhered to the Jewish form of worship, where Saturdays are considered sacred (Sabbath) and set aside as a day of rest from farming and other human



Figure 3. A Cocoa farm and harvested cocoa (Conservation Alliance, 2012)

activities. This was their religious practice before the arrival of the missionaries to the Gold Coast in the 15th century. Community members who violated this practice were often sanctioned. The significance of this religious practice was to allow the natural recuperation of the environment.

Additionally, the forest has traditionally been regarded as the home of their ancestral spirits and gods, who provide protection to the area. The people, therefore, worship the tutelary deity, Sobore, and celebrate the annual yam festival, Alluolie (Eluo) to express their gratitude for the good harvest (Roberts 1983). Some wild animals² are regarded as totems (CI-Ghana 2002). The 'Tree of God', reckoned to be over 150 years old, is regarded as the home of the god of the forest. The 'Abombirim Sacred Tortoise Forest' is preserved because of their belief of the existence of a giant tortoise, which is supposed to be a god. It is said that anyone who picks up the tortoise may not find his/her way back home because the entire forest will be engulfed in total darkness. Additionally, the royal family of Bosomoiso is believed to have originated from a bottomless hole, called the 'Ancestral Hole.'³

The imposing highlands present a unique landscape of scenic beauty. The Nserseso plateau is dominated with short trees and beautiful flowers. These flowers are likely to have been introduced into this natural ecosystem by a Briton, Mr. Reynolds, who was nicknamed by the locals as Kwaku Ti because he had a very big head (FC, 2007).

The reverence for these cultural sites and features accounts for the taboos and norms that prohibit activities, such as hunting sacred animals, pollution of the rivers, and the destruction of vegetation. The landscape also provides a range of products for traditional ceremonies, from food and beverages to costume and musical instruments (CA 2013).

■ 3. Nature-Culture Linkages in Management and Governance

There are specific management regimes for various sections of these reserved lands, even though generally management follows the IUCN Protected Areas management framework, which has, over the years, influenced the ecological health of these forests. Under the

IUCN classification, the Bia National Park⁴ and its adjoining Game Production Reserve are managed as Category II⁵ protected areas, where the management objective is to protect the natural biodiversity, along with its underlying ecological structure and supporting environmental processes.

A number of key statutory and customary institutions play various roles in the management of the landscape. These arrangements are all rooted in a number of legislations, including the 1994/2012 Forest and Wildlife Policy of Ghana.

Under Act 571, enacted in 1999, the Forestry Commission is charged with the responsibility of protection, development, management, and regulation of the forest and wildlife resources of Ghana. The Bia National Park and the Game Production Reserve are managed by the Wildlife Division whilst the Bia North and Krokosua Hills Forest Reserves are managed by the Forest Services Division.

Even though the jurisdiction of the Forestry Commission is restricted to on-reserve areas, the law allows for the commission to collaborate with local communities⁶ and authorities to manage the off-reserves areas that bring value to local communities and lessens the pressure on protected areas.

As a way of deepening the convergence of biodiversity and culture, the 1992 constitution of Ghana made provision for the state to endeavor to preserve and protect places of historical interest and artefacts, including forests. Through the 2012 Forest and Wildlife Policy, the government incorporated some traditional practices into the national resource management system (Wildlife Division 2000). One of the key objectives of the 2004 Cultural Policy was the need to enhance the cultural heritage through the preservation and the conservation of natural resources. Additionally, traditional leaders have been given the opportunity to participate in the governance of the country (GoG 1992). The President of the National House of Chiefs is a member of the Council of State, a body of prominent citizens which advises the President on important national issues.

Most rural communities in Ghana have protected places because they were considered sacred, unique, or were recognized as aesthetically beautiful. While the ownership

2 Animals regarded as totems include the crowned eagle, dog, Nile monitor and buffalo.

3 The hole is surrounded by a dense vegetation that is believed to have some healing powers.

4 Bia National Park is a habitat for over 130 elephants, 62 species of other mammals including 10 primates and over 160 species of birds.

5 Category II refers to National Parks, namely "large natural or near natural areas set aside to protect large-scale ecological processes, along with the complement of species and ecosystems characteristic of the area, which also provide a foundation for environmentally and culturally compatible spiritual, scientific, educational, recreational and visitor opportunities" (IUCN website, <https://www.iucn.org/theme/protected-areas/about/protected-areas-categories/category-ii-national-park>)

6 This collaborative effort has been institutionalized in the form of a Community Resource Management Areas (CREMAs), four of which are fully functional within the landscape.

of the Bia landscape is vested in the President of the Republic of Ghana, the Sefwi Traditional Stool exercises jurisdiction over the entire area.

The Sefwi Traditional Area has a sophisticated traditional system of governance structure, made up of the Paramount chief, and councils of elected chiefs, sub-chiefs, councilors, and elders. The Stool is made up of three mutually independent paramounts, Anhwiaso, Bekwai, and Wiawso, and their common dialect is Sefwi. It originated from the withering of the Twi (dialect of Akans) phrase, "Asa awie" which translates to "War is over", by immigrants who settled on the territories of Aowin (modern-day Sefwi) escaping the century wars. The chiefs exercise executive, legislative, and judicial functions over the area, including the management of the forests (CI-Ghana 2002).

The forests have, traditionally, been regarded as the home of their ancestral spirits, who provide protection, success, and progress to the Sefwi people. It, thus, represents a source of spiritual value and cultural identity to the Sefwi Traditional Area. Traditional festivals, rituals, and ceremonies which draw on forest symbols serve to link the people with their cultural heritage, as well as their ancestral past (Calame-Griaule 1970). The forest provides diverse goods and services to the fringe communities and therefore a number of taboos, customs, and other traditional norms are observed by the state to show reverence to the forests through the regulation of the use of the forest's resources. The forest is thus a source of stories, myths, and local traditions which provide a strong justification for its continued protection.

■ 4. Current State of Conservation and Challenges for Continuity.

While the Sefwi Traditional Council has upheld the cultural heritage of the state to date, manifestations of modernism displayed by the majority of the young generations pose a great threat to the continued protection of the traditional system. For instance, the increasing preferences for foreign foods, especially by the youth, is leading to the loss of a number of traditional dishes of the different ethnic groups. Due to changes in education, politics, technology, and economic development, as well as the ever-growing international tourism market, the Sefwi state is facing a variety of cultural challenges.

■ 5. Recommendation

The Sefwi Traditional Council must come to terms with the fact that cultures are ever-evolving and that change in cultures is a natural phenomenon. In view of this, the state must adopt innovative ways of insulating the

rich cultural heritage of the Sefwi people from undue external influences. Byng (2017) indicated that "the appeal of the Western way of life, coupled with the demand for technology and travel, are on track to render traditional cultures unsustainable". This state must, therefore, sustain community education, especially for the young, drawing lessons from the positive values of the traditional practices that define the cultural identity of the people and the ecological health of the landscape. Additionally, the state must sustain the communities' interest in the traditional practices by transforming the landscape, with its unique natural, cultural, and historical features, into a world class ecotourism destination. This has the potential to enhance the economic and touristic value of the landscape.

■ Literature Cited

- Arhin, K. 1980. The Economic and Social Significance of Rubber Production and Exchange on the Gold and Ivory Coasts, 1880-1900. *Cahiers d'études africaines*, pp. 49-62
- Asare, R. 2005. Cocoa agroforests in West Africa: a look at activities on preferred trees in the farming systems. Copenhagen: Forest and Landscape Denmark (FLD)
- Asare, R. 2016. The relationships between on-farm shade trees and cocoa yields in Ghana. Department of Geosciences and Natural Resource Management, University of Copenhagen.
- Aju, P. C. 2014. The role of forestry in agriculture and food security. *American Journal of Research Communication*, 2014, 2(6): pp. 109-121 www.usa-journals.com, ISSN: 2325-4076
- Byng, X. 2017. Does globalization pose a threat to cultural diversity? Monash University. http://www.academia.edu/4770279/Does_globalisation_pose_a_threat_to_cultural_diversity [accessed 14 February 2017]
- Calame-Griaule, G. 1970. Pour une étude ethnolinguistique des littératures orales africaines. *Langages* 18: pp. 22-47
- CI-Ghana 2002. Handbook of Totem in Ghana - A Traditional Mechanism for Biodiversity Conservation. Conservation International, Accra-Ghana.
- CA (Conservation Alliance). 2013. A Biological Survey of Juaboso-Bia Biological Landscape in Ghana- Towards the development of monitoring protocol for the TFCA Project.
- CCBD (Convention on Biological Diversity). 2008. Protected Areas in Today's World: Their Values and Benefits for the Welfare of the Planet CBD Technical Series No. 36. Secretariat of the Convention on Biological Diversity.
- Cowling, R.M., Egoh, B., Knight, A.T., O'Farrell, P.J., Reyers, B., Rouget, M., Roux, D.J., Welz, A. and Wilhelm-Rechman, A. 2008. An operational model for mainstreaming ecosystem services for implementation. *Proceedings of the National Academy of Sciences*, 105(28): pp. 9483-9488
- Daaku, K.Y. 2012. The History of my people Sefwi. <https://kofimanu.wordpress.com/2012/06/22/the-history-of-my-people-sefwi/> [accessed 14 February 2017]
- Ghana Statistical Service. 2012. Population Census 2010.
- GoG (Government of Ghana). 1992. Constitution of Ghana. Ministry of Information. Accra Ghana
- Forestry Commission. 2007. Krokosua Globally Significant Biodiversity Area Management Plan 2007-2011.
- Forestry Commission. 2007. Bia North Forest Reserve Management Plan 2007-2011.
- Kwekudee. 2013. Sefwi People: Ghana's Number One Agricultural People. <http://kwekudee-tripdownmemorylane.blogspot.com/2013/09/sefwi-people-ghanas-number-one.html> [accessed 29 November 2016]
- Maffi, L., and Woodley, E. 2010. Biocultural diversity conservation: a global sourcebook. Routledge.
- MDTP. 2001. Ministry of Local Government and Rural Development, Juabeso- Bea District Assembly. February. (2001). Second Five-Year Medium Term Development Plan: 2001-2005. First Draft Report.
- MOFA. 2013. Ghana Agricultural Production Survey. Ministry of Food and Agriculture. Accra- Ghana
- Poker, J., and MacDicken, K. 2016. Tropical Forest Resources: Facts and Tables. *Tropical Forestry Handbook*, pp.3-45.
- Prussin, L. 1969. Architecture in northern Ghana. University of California Press.
- Roberts, P.A. 1983. The Sefwi Wiawso Riot of 1935: the deposition of an Omanhene in the Gold Coast. *Africa*, 53(02): pp. 25-46.

Sarfo-Mensah, P and Oduro, W. 2007. Traditional Natural Resources Management Practices and Biodiversity Conservation in Ghana: A Review of Local Concepts and Issues on Change and Sustainability Fondazione Eni Enrico Mattei. Corso Magenta, 63, 20123 Milano (I),<http://ageconsearch.umn.edu/record/7440/files/wp070090.pdf>

Sistla, S. A., Roddy, A. B., Williams, N. E., Kramer, D. B., Stevens, K., and Allison, S. D. 2016. Agroforestry Practices Promote Biodiversity and Natural Resource Diversity in Atlantic Nicaragua. PLoS ONE, 11(9), 0162529. <http://doi.org/10.1371/journal.pone.0162529>

Tabush, P. 2010. Review of the Cultural Values of Trees, Woods and Forests. The Research Agency of the Forestry Commission. [http://www.forestry.gov.uk/pdf/Cultural_value_woods_full_report_March2010.pdf/\\$file/Cultural_value_woods_full_report_March2010.pdf](http://www.forestry.gov.uk/pdf/Cultural_value_woods_full_report_March2010.pdf/$file/Cultural_value_woods_full_report_March2010.pdf).

Wildlife Division. 2000. Collaborative Wildlife Management, Accra

World Bank. 2016. An Integrated Approach to Managing and Restoring Landscapes. The World Bank Group <http://www.worldbank.org/en/topic/environment/brief/landscapes>

