Engaging people in the Wechiau Community Hippopotamus Sanctuary in Ghana

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Abstract

The Wechiau Community Hippopotamus Sanctuary Initiative, a unique community-based approach to *in situ* conservation in Ghana is presented and discussed. The sanctuary covers an area of about 40 Km^2 along the banks of the Black Volta River and contains one of the two remaining populations of hippopotamus (*Hippopotamus amphibius*) in Ghana. There are also over 210 species of plants in the sanctuary many of which are rare elsewhere in Ghana and sanctuary may become a relatively undisturbed botanical reserve for the northern savanna zone in Ghana. The initiative to develop the area into a sanctuary was led by the traditional chiefs and the local people resulting in the establishment of the first community-owned and -managed large mammal conservation site in Ghana. The decisions and management of the sanctuary are made by a Sanctuary Management Board (SMB) which is made up of the local people and they take recommendations from Earthwatch- supported scientists who use the area as their ecological laboratory. The scientists used field ecological and ethnobotanical techniques, environmental education, training of the local people and provided financial support to facilitate the establishment of the sanctuary. The sanctuary is already bringing benefits to the project communities through the conservation and sustainable uses of their natural resources and the promotion of community-based ecotourism. The challenges in local management of the project and prospects in terms of conservation and development of the project communities as a result of the initiative as well as recommendations for future management are discussed.

1.0. Introduction

The Wechiau Community Hippopotamus Sanctuary initiative is a unique community-based approach to in situ conservation in the Upper West Region of Ghana to conserve the remaining unprotected hippopotamus (*Hippopotamus amphibius*) population in the Black Volta River. The sanctuary has a population of about twenty-four hippopotamus. The only other presently known population of hippopotamus in Ghana can be found in the Bui National Park which is under threat with the government's plan to develop a dam over the river for hydro-electrical power generation. It is anticipated that the present population of hippopotamus in the Bui National Park will migrate to the sanctuary when the dam is finally developed. The sanctuary is therefore the only viable refuge for this focal species in Ghana.

The Wechiau Community Hippopotamus Sanctuary initiative is a unique approach to in situ conservation in Ghana in that it is:

- a genuine community- based initiative led by the traditional chiefs and people with no national government involvement resulting in the establishment of the first community – owned and –managed large mammals sanctuary in Ghana,
- a collaborative initiative that is using conservation as a key element in bringing together people from diverse ethnic, cultural and religious backgrounds, and
- an initiative that is based on a long-term vision and therefore will take many years to yield its full benefit for the people. Such a long-term vision is often not common among poor people who have to focus on short-term activities that will sustain them on a daily basis.

2.0. Location and description of Sanctuary

The sanctuary is located at Wechiau about 42 Km southwest of Wa in the Upper West Region of Ghana and positioned on latitude 09°49'762 N and longitude 02°40'965 W. The sanctuary occupies an area of about 40 Km^2 along the banks of the Black Volta River and the vegetation type is Guinea Savanna. There is a rainy season between June and October and a long dry season from November to May in the sanctuary. The average annual rainfall and temperature ranges are 1034.1 mm per year and 11°C respectively. Hippopotamus (*Hippopotamus amphibious*) is the keystone species in the sanctuary area both from the point of view of conservation and ecotourism.

The sanctuary involves 22 villages and settlements made up of largely the Wala and Brifo people with an estimated population of 8700 people in the sanctuary. The Wala people are the landlords of the area and the Birifo are considered as settlers from Burkina Faso. Three main religious groups: Muslims, Christians and believers of traditional religion are found in the sanctuary. The chief of Wechiau (Wechiau Naa) is the Paramount chief of the traditional area and all other chiefs are divisional chiefs under his authority. The people living in the sanctuary are largely farmers, hunters, cattle herdsmen and fishermen. Crops cultivated are mostly food crops such as Bambara beans, corn, millet, guinea corn, groundnuts and yams, and cash crops such as cotton and tobacco.

3.0. History of the Sanctuary

The history of the Wechiau Community Hippopotamus Sanctuary dates back to the 1990s. Two studies on the status of *Hippopotamus amphibious* in the Black Volta recommended for the establishment of a government managed reserve at the Wechiau traditional area to conserve the hippopotamus population (Choribe, 1990; 1997). This recommendation was however rejected by the landlords, as they were scared that government would take over and alienate them from their own land.

In August 1997, a team led by the Executive Director of Nature Conservation Research Center (NCRC), Mr. John Mason, with personnel from the Ghana Wildlife Division and Ghana Tourist Board visited Wechiau to dialogue with the Chiefs and opinion leaders about developing the potential of the hippopotamus population within their area. Further series of meetings and discussions between staff of NCRC and the Paramount Chief of Wechiau Traditional Area, Na Bayon Doguah II, the sub-chiefs and opinion leaders culminated in an agreement to develop the area into a community-based sanctuary. The chiefs and people were very motivated because they will still own their land and accrue direct benefits to their communities for infrastructure development whiles contributing to the conservation of their natural resources.

Following the acceptance of the concept of a community-based sanctuary, the Paramount Chief and his people formally requested for technical assistance from NCRC to assist in the

establishment of the sanctuary. In December 1998, NCRC posted a sanctuary advisor to the area to begin working with the project communities to lay the foundation for the sanctuary. The collaborative effort of the project communities and NCRC gained support from the Wa District Assembly (local government).

In early 1999, an old building in Wechiau was refurbished to serve as the visitor information Centre using an existing community fund. The sanctuary advisor also facilitated the formation of a Tourism Development Committee (TDC) to be in-charge of tourism and it was made up of only members from the landowning tribe. The landlords did not want the settler groups to be part of the TDC. The paramount chief of the area also declared that all human activities other than fishing were prohibited within 2km along the Black Volta River and farmers were allocated alternative lands outside the area. The TDC received a small grant from Peace Corps Ghana in 1999 year to begin a four –room lodge within the sanctuary for tourists. In that same year, Calgary Zoo Conservation Fund also provided funds to undertake a reconnaissance survey to begin planning the sanctuary and to demarcate areas. Shortly after the survey, the TDC was later reconstituted into a Sanctuary Management Board (SMB) with the mandate as a decision making body and made up of largely community members from the 22 villages and non-official representatives of stakeholders such as NCRC and Ghana Tourist Board (GTB).

4.0 Earthwatch expeditions

In the year 1999, NCRC secured funds from Earthwatch Institute (UK) for a multidisciplinary team of scientists to conduct detailed ecological baseline studies on plants, birds, mammals and reptiles in the sanctuary in order to generate information for the management of the sanctuary. The recommendations from the Earthwatch-supported scientists were to be used by the SMB with the technical assistance of NCRC to ensure that management decisions have rigorous scientific basis. The first Earthwatch expedition to the area was in June 2000. It was the Earthwatch expeditions that really facilitated the establishment of the sanctuary. The Earthwatch-supported scientists used the following methods to facilitate the establishment of the sanctuary.

Field ecological and ethnobotanical techniques

The Earthwatch-supported scientists used rapid standard ecological census techniques and community participatory ethnobotanical techniques to collate information on the plants and animals in the sanctuary, and the uses of plants to the local people. A number of local people were recruited from the project communities to serve as guides for each of the different taxonomic discipline and for them to gain a deeper understanding of nature. The first three years of the project (2000-2003) documented over 210 species of plants, about 200 species of birds, 16 species of bats, 26 species of rodents, 13 species of snakes as well as 6 species of amphibians in the sanctuary (EWI, 2003).

The sanctuary was therefore also found to be important for its botanical resources. Plant species such as *Heeria isginis* and *strychnos spinosa* that are rare in other parts of Ghana were common in the sanctuary. The sanctuary also contained species of plants that supported the livelihood of thousands of the local people by providing them with their sources of medicine, food, fuel wood, fodder, constructional material, crafts and tools (Asase and Oteng-Yeboah, 2005). Because annual bushfires impact on plant biodiversity in almost the entire northern savanna zone in Ghana, the sanctuary may become a relatively undisturbed botanical reserve in the area.

Environmental education

The Earthwatch funded expeditions was also very important in its environmental education. The scientists used the research results through environmental education in the form of welcome durbars and end of expedition debriefing to disseminate information on the species of plants and animals, and indicate threats to these plants and animals to the local people in the sanctuary. The chiefs and their people, members of the SMB, Earthwatch Volunteers and School children from the project communities attended the welcome durbars and end of expedition debriefing. A total of fourteen Earthwatch funded expeditions that involved 130 international volunteers were conducted in the first three-years of the project and the presence of these international volunteers at the sanctuary alone made a significant contribution in the facilitation of the establishment of the sanctuary. Environmental education through visits to schools and communities also ensured that the people were educated about the effects of indiscriminate bush fires, hunting of game and fishing in certain areas of the Black Volta as well as the values that they could derive from the conservation of natural resources through ecotourism.

Training of the local people

The Earthwatch expeditions involved the local people in a variety of ways especially as cooks, guides and boatmen. It provided a number of training opportunities for the local people especially as natural history tour guides. Two of the local people now serve as excellent tour guides for plants and birds in the sanctuary and one of them received a national tour-guide award.

Financial support

The accommodation fee paid by Earthwatch was used to pay for the daily expenses of the sanctuary and staff salaries. The funds from Earthwatch also enabled the SMB to construct an additional tourist lodge in the sanctuary. The local staffs on the Earthwatch funded project were also paid salaries at the end of each expedition. The financial support was a great motivation to the people to support the sanctuary activities.

One of the major outputs of the Earthwatch expeditions at the sanctuary was the five –year management plan for the sanctuary. The data from the Earthwatch expedition were very instrumental in the promulgation of the management plan. Earthwatch Institute further provided funds two years to support five activities in the management plan that were suitable for meaningful volunteers participation whiles NCRC was seeking grants to address the more expensive and technically difficult tacks within the management plan. The sanctuary management plan was used by the SMB in making bye-laws to regulate human activities in the sanctuary.

5.0. Funding and stakeholders

The sanctuary has also benefited from various organization to enable it perform its functions properly. The primary sources of outside funding for the sanctuary have been from Peace Corp Ghana, The Calgary Zoo and United State of America International Aid (USAID). Peace Corps Ghana provided the initial funds to establish the first lodge in the sanctuary. The Calgary Zoo supported the initial salaries for the sanctuary from 2000-2001, and provided equipment such as bicycles, uniforms, safety boots and cutlasses for the sanctuary Rangers. The Calgary Zoo society also raised funds from its members to support education programs sponsored by the sanctuary, and to provide the professional assistance of an on-site education specialist.

USAID funds have supported the development of facilities such as Visitor Center, refuse containers, safety equipment, marketing materials like brochures, posters and t-shirts, and capacity building initiatives like tour guiding training, tourism awareness sessions and financial management training.

Other stakeholders providing material and technical support to the sanctuary include the Ghana Tourist Board and the Wa Municipal Assembly.

6.0. Achievements and prospects of the Sanctuary

The Wechiau Community Hippopotamus Sanctuary has begun to generate real returns from visitors and researchers. For instance in 2003, the sanctuary generated $6230 from tourists. All funds generated from the sanctuary go into the SMB account and this is used to pay for the salaries of staff, maintenance cost and community projects. In this way, the sanctuary has directly provided employment to about ten local people who are engaged as guides and cooks in the sanctuary. A large number of the local people have also benefited indirectly through the sale of crafts, hiring of vehicles and bicycles. The sanctuary has also been able to sponsor four boreholes in four of the project communities to provide them with portable source of drinking water. This is a significant contribution, as many of the communities within the sanctuary do not have sources of portable drinking water. The District Assembly has also renovated and constructed roads and culverts linking some of the sanctuary communities making some of the remotest communities in the sanctuary now very accessible to health centers, schools and for marketing activities.

The sanctuary has already attracted the attention of many researchers and students who have used the area as their field research site. A number of students have successfully conducted their theses research work in the sanctuary working closely with the local people (Donahue, 2003; Asase, 2004). The University of Calgary also adopted the sanctuary area for their summer Biological Field School in Ghana in 2001. There are still many opportunities for research in different disciplines such as Anthropology, Aquatic Biology, Sociology, Ethnobotany and Wildlife.

The sanctuary has also attracted the attention of both local and international media with print and electronic pieces appearing on British Broadcasting Corporation (BBC), Canadian Broadcasting Corporation, Ghana Broadcasting Corporation (GBC), Sunday Times (UK), Sankofa (Netherlands), Daily Graphic (Ghana), Calgary Herald and Ottawa Citizen (Canada). It is hope that the tourism potential of the sanctuary will therefore increase and more revenue will be obtained for the development of the area.

7.0. Challenges facing the Sanctuary

Despite the above achievements, the sanctuary still has a number of challenges. One of the major challenges facing the sanctuary is recurrent annual bushfires. These annual bushfires often destroys the habitat of a variety of animals as well as their sources of food and also impact on the vegetation. Although environmental education has assisted drastically in reducing the extent of bushfires in the area the situation is still disturbing.

Fishing in the Black Volta is another important challenge for the SMB. Fishing nets are usually laid across the width of the Black Volta River accompanied by excessive noise making especially in the dry season and this obstructs and disturbs the free movement of hippopotamus leading to human-hippopotamus conflicts. The sanctuary is facing challenges in stopping other old habits such as hunting of small game.

The implementation of the bye-laws and regulations established by the SMB for ensuring the protection of ecologically sensitive areas of the sanctuary has not been very effective. Many of the people who go against the sanctuary bye-laws are usually family relations of the SMB, which make its difficult to apply sanctions on them.

The long-term goal of the SMB is to fund all expenses and development needs of the sanctuary through its tourism revenue. However, the sanctuary is still a relatively new project and is facing financial difficulties since the Earthwatch expeditions that used to be one of their major sources of revenue have also come to an end.

8.0. Recommendations for management

There is a need to still continue with environmental education in the sanctuary to enable the community members fully appreciate the benefits that they can obtain as a result of conserving the plants and animals in the sanctuary. The SMB could also do early controlled burning in the sanctuary so that the effects of bushfire on the flora and other resources will be minimal. Alternatively, the SMB could consider making green firebreaks that will protect core areas of the sanctuary from burning. Regular patrols by the sanctuary Rangers should be carried out to check incidences of bushfires and also hunting for game and fishing in certain portions of the Black Volta River. The SMB should also grow seeds and propagules of plants that were collected during the Earthwatch expeditions in degraded areas of sanctuary. To generate more revenue for the sanctuary, the SMB should start to put labels on the plants containing information on the local names and uses of these plants. This will increase the number of options that a tourist visiting the area would have.

9.0. Concluding remarks

The Wechiau Community Hippopotamus Initiative has developed rapidly and has created multiple opportunists for sharing lessons learned with other parts of West Africa and the rest of the World. The Wechiau approach allows local communities to plan, manage and benefit from their natural resources through ecotourism and is a pioneering example of practical community – based conservation in West Africa.

Acknowledgments

We are most grateful to the project communities and SMB and all the stakeholder of the Wechiau Community Hippopotamus Sanctuary. We are also grateful to the entire staff of the Earthwatch Funded Project and staff of NCRC. Thanks to Earthwatch Institute (UK) for their funding, this made the difference. We also thank Earthwatch Institute for providing funds to enable Dr. Alex Asase attend this congress.

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