

Land Conflicts

Keywords – title

- > Hydroelectric
- > Black Volta
- > resettlement
- > reliance
- > Hippopotamus

Introduction

The Bui hydroelectric dam is located on the borders of the Northern and Brong-Ahafo Regions of Ghana. The Bui Dam is a 400 megawatt hydroelectric project under construction at the Bui Gorge at the southern end of Bui National Park in Ghana (Figure 1). Bui National Park, the third largest protected area in Ghana, measures 1820 km² and straddles the Black Volta River. The Bui National Park was established in 1971 and hosts the largest protected population of hippos in Ghana (approximately 305 hippos) and is one of eight hippo populations in all of West Africa. The endangered black and white colobus monkey and a variety of antelopes and birds are also present.

In 2007, as Ghanaians were suffering another electricity crisis with frequent power outages, the then president of Ghana cut the sod for the country's third large hydro-electric dam at Bui across the Black Volta. The main construction work started in 2009 (Figure 2). The project promised to guarantee Ghana's electricity supply and to develop neglected parts of the northern region. The project is would be collaboration between the government of Ghana and Sino Hydro, a Chinese construction company. The dam project would inundate 21% of the Bui National park and require the forced relocation of 1,216 people.

This case is unique because Bui dam project was part of a bigger dream plan of Ghana's first president Dr. Kwame Nkrumah for the industrialization and modernization of Ghana and Africa. Since the 1980s, periodic electricity crises due to irregular rainfall have undermined Ghana's reliance on Akosombo, the biggest dam in Ghana. In spite of an increasing international critique of large dams on livelihoods around the area and the danger it will cause to the environment (Hippocampus and other animals), the Ghana government still went ahead to establish this dam which is almost in completion. There were other alternatives to solving the power crises by concentrating on other major dams and managing power

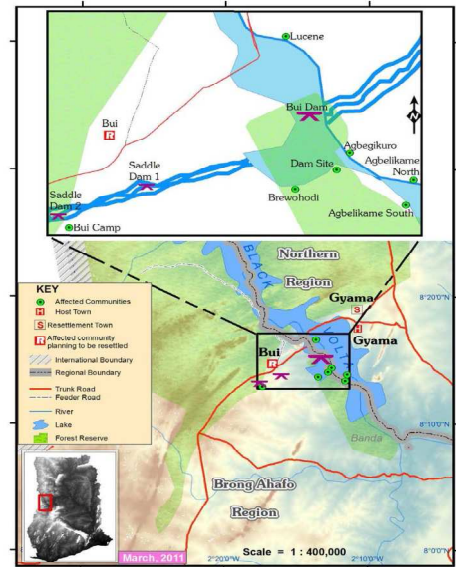


Figure 1: Map of Ghana showing dam site and resettlement activities

to avoid power wastage but the government chose to build a new dam.

Background

The Bui Dam had been planned since the 1920s as part of the original Volta River Project: harnessing the river by producing ample electricity for processing the country's bauxite. In the early 1960s, when the first president of Republic of Ghana (Dr. Kwame Nkrumah) began to implement the Volta River Project by building the Akosombo Dam, Bui was supposed to follow as part of a grand plan for the industrialization and modernization of Ghana and Africa. The Bui hydro-electric dam had first been envisaged in 1925 by the British-Australian geologist and naturalist Albert Ernest Kitson when he visited the Bui Gorge. The dam had been on the drawing board since the 1960s.

By 1978 planning for the Bui Dam was advanced with support from Australia and the World Bank, however, four military coups stalled the plans. Ghana began to be plagued by energy rationing which has persisted up to now. The development of a hydropower scheme on the Black Volta River at the Bui Gorge had been the subject of many studies. This includes; detailed studies by J.S. Zhuk Hydroproject of the USSR





Figure 2a: Construction work on dam. Source: buipowerauthority.com



Figure 2b: Construction work on dam. Source: buipowerauthority.com

in 1966, a Feasibility Study by Snowy Mountains Eng. Corp (SMEC) of Australia in 1976 and another Feasibility Study by Coyne et Bellier of France in 1995. Since the 1980s, due to irregular rainfall, there have been periodic electricity crises which undermined Ghana's reliance on Akosombo. This is the justification by the government for the construction of the third major dam (Bui dam) in the country after the Akosombo Dam and the Kpong Dam.

The Bui Hydroelectric dam Project

Ghana has for decades had a very erratic electricity supply due to its over-reliance on hydropower from large dams. The 400 megawatt hydroelectric power to be generated at the Bui Gorge is said to increase electricity generation capacity in Ghana by 22%, up from 1920 MW in 2008 to 2360 MW. Together with three thermal power plants that are being developed at the same time, this dam is said to contribute to alleviate power shortages that are common in Ghana. It was later included to the plan of the dam to develop an irrigation of high-yield crops on 30,000 hectares of fertile land in an Economic Free Zone and presents an opportunity for enhanced ecotourism and fisheries. The current status of the irrigation project is however unclear.

Bui Power Authority Act, 2007 (Act 740) was enacted by the Parliament of Ghana and assented by the then President in July 2007 to establish an Authority known as the Bui Power Authority (BPA) which was to plan, execute and manage the Bui Hydroelectric Project. The project is a collaboration between the government of Ghana and Sino Hydro, a Chinese construction company. The total project costs are estimated to be US\$622 million. It is being financed by the government of Ghana's own resources (just US\$60m) and two credits by the China Exim Bank: a concessional loan of US\$270 million at 2% interest and a commercial loan of US\$292 million. It is being financed by the government of Ghana's own resources (just US\$60m) and two credits by the China Exim Bank: a concessional loan of

US\$270 million at 2% interest and a commercial loan of US\$292 million.

The proceeds of 30,000 tons per year of Ghanaian cocoa exports to China, which are placed in an escrow account at the Exim Bank, serve as collateral for the loan. Once the dam becomes operational, 85% of the proceeds of electricity sales from the hydropower plant will go to the escrow account. As at July this year, civil (concrete) works at the main dam stood at 95 % completed. And the main focus of activities currently is shifted on the completion of the intake gates to retain water.

The project's environmental analysis seems to be ignoring the potential for climate change to reduce the dam's electricity output, and glossed over the project's climate-change impacts. Most of the country's electricity now comes from dams, and the nation has seen severe load-shedding in times of drought.

Impact

The Bui dam project has two major categories of impact, social and environmental.

Social impact

The Bui dam project requires the forced relocation of 1,216 people. There was no proper planning ahead of resettlement so some communities were forced into temporary structures creating much inconvenience for the communities. Four years down the line, some people have yet to be resettled. As at November, 2013 statistics on the resettlement were:

- Total of 1,116 people settled out of 1,;
- 183 out of 219 households were settled;
- Seven (7) communities settled out of eight (8).

New resettlement townships were given the following communal facilities; community centre, a nursery school, a place of worship, a borehole (water) and KVIP (places of convenience). Most of the houses contained two bedrooms, a kitchen, a bath and a living room.

For crop compensation, the Land Valuation Division of the Lands



Figure 3: Hippopotamus in water at the Bui National Park Source: www.arocha.org

Commission of Ghana acting on behalf of government and with the assistance of Bui Power Authority (BPA) did the valuation. A grant of GHS 100 (USD 50) was paid for resettlement and GHS 50 (USD 25) to till new farms. This money is not sufficient for tree crops which may take 6 years to bear fruit. One year of income support at GH S 100 (USD 50)/month was given to each household.

On average, USD 50 was deemed acceptable per month but a year is too short a time for them to become self-sufficient. Also some fishers were resettled on dry land and prohibited from fishing in the river, meaning a loss of livelihood.

Environmental impact

The Bui National Park will be significantly affected by the Bui Dam. About 21% of the park will be submerged. This will affect the only two Ghana (Figure 3), whose population is estimated at between 250 and 350 in the park. It is unclear if hippos can be relocated and if there is any suitable habitat near the area to be inundated. Even if there were such a "safe haven", it is not clear if the country's game and wildlife department has the means to rescue the animals.

The Environmental and Social Impact Assessment states that hippos will be vulnerable to hunting during the filling period of the reservoir. It also claims that they would ultimately "benefit from the increased area of littoral habitat provided by the reservoir". The dam could also have other serious environmental impacts, such as changing the flow regime of the river, which could harm downstream habitats. A survey by the University of Aberdeen has revealed that the Black Volta River abounds with 46 species of fish from 17 families and will be affected. Waterborne disease could also occur. Schistosomiasis in particular could become established in the reservoir, with severe health risks for

local people.

Conflict and Consequences

The Bui dam project has seen forced resettlement of eight (8) communities with some yet to be resettled. There have been several conservation groups both international and local who advocated against the dam project but the Ghana government did not give a listening ear.

The challenges and errors in planning the Bui resettlement have therefore marred its successful implementation, resulting in adverse impacts on the affected people. These people have not been duly consulted and given the platform to effectively participate in order to influence the decisions made. They have been relegated to the background and positioned at the receiving end instead of being key participants in an issue which is about their lives. None of the three major livelihood activities of the affected people; farming, fishing and trading and their corresponding assets of fertile farmlands and fishing grounds have been restored after four years of resettlement. Concurrently, income support given to the people is for a year (a daily wage which was less than USD 0.50 per person) has ended.

The lands offered to affected persons eligible for land compensation have been identified to be of poor quality and the shifting cultivation farming practice of these farmers is no longer possible since they now have limited and fixed lands. Furthermore, trade is on hold and picking forest products will not be possible since the portions of the Bui forest reserves the people could access will be inundated. New farmland preparation assistance was insufficient and some farmers have not received crop compensation yet.

This document should be cited as:

Tornyie, Ferdinand. 2015. Bui Hydroelectric Power dam Project in Ghana, EJOLT Factsheet No. 25, 4 p.



The first group of settlers face challenges of poor housing, inability to negotiate and participate for a better resettlement and compensation package, empty and false promises from officials, and in the end they were used more or less as a sample test for subsequent settlements which receive some form of improvement. Later settlements have seen improved conditions because the resettlement officers and the other affected communities have had the chance to see and learn from the situation of the first settlers. Some new settlements however, are also faced with issues such as small rooms, leaking roofs, crowded settlement, broken locks and infertile farmlands. Additionally, one new settlement that was planned to be temporary is now being turned into a permanent settlement with only one additional room for each household.

Compensation is distributed as a single payment based on market value. Studies have shown that this is insufficient compared to the loss and hardship suffered by dam affected people. Also, during the resettlement processes the companies did not know much about forced resettlement and some of the pressing issues about it in Ghana. This made them lose sight of some important issues such as chieftaincy and power relations between host and settler communities. Thus the potential has been created for chieftaincy disputes. There is an increase pressure on social amenities such as clinics, schools, toilets, and boreholes due to the influx of workers to the area causing social upheavals. Also more people from resettled communities are leaving their farming business to look for jobs at the dam construction work and so advocating for priority for employment before others and this creates tension and soon to come conflicts. There has been a total ban on fishing in the Black Volta without alternative fishing grounds. All the above issues are creating tension between the affected communities and officials of the project as well as the government.

References

- Boateng, M. (2007) 'Ghana: Banda Traditional Council Supports Bui Dam Project'
- Convention People's Party (CPP) (2007), 'CPP Blames govt. wholly for the energy crisis' Posted in Energy–Bui Dam, Media Watch, ghanaweb.com/GhanaHomePage/NewsArchive
- Fink, M. (2005) 'Integrating the World Commission on Dam Recommendations in Large Dam Planning Processes: the Case of the Bui Dam, Ghana,' University of Dortmund.
- Adu-Aryee (1993). Resettlement in Ghana: From Akosombo to Kpong. In Cernea, M. M. and Guggenheim, S. E. (Eds.), *Anthropological Approaches to Resettlement: Policy, Practice, and Theory* (pp. 133-151). West view press, Inc.
- Chambers, R. (1970). *The Volta resettlement experience*. Paul mall press, London.
- Matilda Mettle (2011). *Forced Resettlement in Ghana: the Dam and the Affected People*. MPhil. Thesis. Department of Geography, Faculty of Social Sciences and Technology Management, Norwegian University of Science and Technology (NTNU), Trondheim, Norway.

All sources last accessed 07.02.2015



This publication was developed as a part of the project Environmental Justice Organisations, Liabilities and Trade (EJOLT) (FP7-Science in Society-2010-1, under grant agreement no 266642). The views and opinions expressed in all EJOLT publications reflect the authors' view and the European Union is not liable for any use that may be made of the information contained therein. EJOLT aims to improve policy responses to and support collaborative research and action on environmental conflicts through capacity building of environmental justice groups around the world. Visit our free resource library and database at www.ejolt.org or Facebook (www.facebook.com/ejolt) or follow tweets (@EnvJustice) to stay current on latest news and events.