Notice of the Final Oral Examination
for the Degree of Doctor of Philosophy

of

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“Living with the Bui Dam; Implications for Community Livelihoods of Resettled Communities around Bui National Park”

Department of Geography

Monday, December 19, 2016
10:00AM
David Turpin Building
Room A132

Supervisory Committee:
Dr. Phil Dearden, Department of Geography, University of Victoria (Co-Supervisor)
Dr. Rick Rollins, Department of Geography, UVic (Co-Supervisor)
Dr. Grant Murray, Department of Geography, UVic (Member)
Dr. Ann Stahl, Department of Anthropology, UVic (Outside Member)

External Examiner:
Dr. Kelly MacKay, School of Hospitality & Tourism Management, Ryerson University

Chair of Oral Examination:
Dr. Elizabeth Vibert, Department of History, UVic

Dr. David Capson, Dean, Faculty of Graduate Studies
Abstract

The objective of this study was to develop an understanding of the effects of the construction of hydro dams on nearby communities. The construction of the 400 megawatt Bui dam (8o16/ 42/I N, 2o143/ 9/I W) in Ghana has inundated seven communities and nearly a quarter of Bui National Park, including the destruction of community resources that provide for the livelihood needs of the people living near the dam. The dam led to the resettlement of seven communities, coordinated by the Bui Power Authority. Concerns expressed about the resettlement process indicate some weakness in stakeholder consultations relating to the resettlement, as well as weakness in the development of opportunities to address the anticipated effects of the Bui dam, including effects on community assets.

These issues were examined through a study of how the construction of Bui Dam was perceived by local communities representing several ethnic-linguistic groups, including the Ewe, Mo, and Nafana. The study examined perceived adverse effects of dam construction on capital assets.

A mixed methods approach was used in the research, including document analysis, quantitative interviews of 329 households, key informant interviews with 22 households, and case studies of four families, including two families each from resettled and non-resettled communities. Data was obtained from 13 nearby communities, 7 of which had been relocated because of the dam.

The study considered seven capital assets: cultural; natural; social; human; political; physical; and financial. Overall, people perceive these capital assets to be decreasing in most aspects as a result of the Bui Dam, with some variability among households. This variability was explored through analysis of a number of predictor variables: relocation, ethnicity, livelihood type, age, and gender. Villages not relocated tended to perceive effects less negatively, as did people of Nafana ethnicity, and those who rely mainly on a farming livelihood. Gender and age had little effect: gender mediated effects on social and political capital, while age affected only cultural capital.

Further analysis through the use of multiple regression analysis was undertaken to determine the relative influence of each of these predictor variables. Overall, each multiple regression analysis was significant, with high R squared values ranging from 0.761 to 0.260. The most powerful predictor was whether communities had been relocated or not (“relocate”), which was significantly related to each capital asset, with beta values ranging from 0.826 to 0.418. “Livelihood” was the next most important predictor variable, significantly related to all capital assets and with beta values varying from 0.520 to 0.231. “Ethnicity” was a significant predictor for four of seven capital assets, with beta values ranging from 0.133 to 0.055. “Gender” was a significant predictor variable for two of seven capital assets (social capital, with a beta value of 0.084, and political capital, with a beta value of 0.119). “Age” was a significant variable for just one capital asset (cultural), with a beta value of 0.038.

In summary, this study is consistent with other studies that have examined the effect of dams on the livelihoods of nearby communities in that for most households the consequences have been negative, although not as severe for those households that were not forced to relocate, people of Nafana ancestry, or people who rely mainly on farming. The presence of Bui National Park may have moderated these negative effects somewhat as vegetative cover in the park supports the formation of atmospheric moisture that contributes to cloud formation and rain occurrence.