



Tropentag 2009
University of Hamburg, October 6-8, 2009
Conference on International Research on Food Security, Natural
Resource Management and Rural Development

Challenges in Integrating Biodiversity Conservation and Local Development: A Case Study of Ang Trapeang Thmor (ATT) Protected Area in North West Cambodia

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ABSTRACT

This paper looks into the conservation and management of a crane sanctuary (ATT) in North West Cambodia and explores the difficulties of integrating biodiversity conservation and local development. Ang Trapeang Thmor is a protected area covering an area of 12650ha and bordered by eight villages. The findings revealed that the designation of the protected area has had negative impacts and consequences on the livelihoods of the villagers due to restriction to access and user rights to land and conflicts over the management of natural resources within and around the area. The villagers are disenfranchised as they only participate passively in the management and show profound misunderstanding on the importance of the conservation project. This demonstrates the difficulties in finding a balance between conservation and development, and underscores the importance of sufficient level of participation of villagers for the success of Integrated Conservation and Development Projects (ICDPs).

Keywords: Ang Trapeang Thmor, biodiversity Conservation, community participation, conflicts, livelihoods

1. INTRODUCTION

Over the last decades, many protected area management efforts have attempted to address the problem of local economic development and conservation of biodiversity through the integrated conservation and development project paradigm (Mackinnon and Wardojo, 2001 cited by Siebert & Belsky, 2002). Conservationists have all recognized that local participation is of crucial importance for the future of protected areas in developing countries due to increasing population, persistent poverty and penetration of the market economy (Wells & McSchane, 2004). The history of Ang Trapeang Thmor protected area dates as far back as the late 1970s during the Khmer Rouge reign with the construction of three dams and a large water reservoir. Following the discovery of a significant non-breeding congregation of the Eastern Sarus Crane (*Grus antigone*) in 1998, the area was declared a protected area in 2000 by a Royal Degree. Bordered by

eight villages, the resources of this 12 650ha of land comprising of a large lake, lowlands and forest serves as income and subsistence source for the local villagers without any limitations prior to its designation as a protected area. With the designation of the area a protected area in 2000 and the subsequent management by the International Crane foundation (ICF) and later the World Conservation Society (WCS), the villagers have restricted access and user rights to land and the natural resources with very negative impacts on their livelihoods and conflicts opposing villages on the one hand and between villagers and the authorities over the management of resources. This confirms an assertion by West & Brechin (1991), that there are widespread conflicts between resident people and protected area management authorities particularly over property rights and livelihood activities within areas designated for conservation.

2. OBJECTIVES

The paper aims to explore how the conservation of Ang Trapeang Thmor and the surrounding areas is affecting the villagers (households) in Pongro and Sambuor and the natural resources in the area.

The specific objectives are as follow

- To assess the impact of the protected area and it's management on local livelihoods in Pongro and Sambuor;
- To investigate the local perception, participation and understanding of the need for conservation of natural resources among the local population of Pongro and Sambuor.

3. STUDY AREA AND METHODOLOGY

3.1 Description of Study area

This study was carried out in two of the eight villages that bordered the protected area (Pongro and Sambuor villages) in Paoy Char Commune, Phnom Srok District of North west Cambodia. Both villages count some 292 households. The protected area (ATT) covers about 12 650ha consisting of a large lake, lowlands and forest. Apart of the Eastern Sarus Crane, more than 200 known species of other birds have been counted in the area of which 18 have been classified as globally threatened or globally near threatened. The area also serves as habitat to fish breeding grounds and the extremely rare Eld's Deer and serve as a prime bird watching sites in North West Cambodia (WCS, 2007).

3.2 Data collection methods

The study employed both qualitative and quantitative methods in collecting data. Semi structured interviews were conducted with village chiefs, the forest administration, water administration, local school teacher, head of WCS and some WCS facilitators. A range of PRA exercises (focus group discussions, history trends, transect walks,) were carried out with villagers and a drawing exercise with school children. Questionnaires survey was carried out at household level and GPS mapping of all households interviewed and features of interest.

All these methods were aimed at eliciting information on the management of the protected area, local perceptions, participation, and understanding of the need for conservation and the impacts of the protected area on local livelihoods.

4. FINDINGS AND DISCUSSIONS

The findings from the study reveal that the protected area has a negative impact on the livelihoods of the studied villages. There is a drastic drop in dry season rice cultivation and collection of NTFPs from the protected area. This is as a result of restrictions to access and user-rights to land and loss of large portions of their former agricultural lands. Only 20% of the sampled population carried out dry season rice cultivation on the buffer zone. There has been a free fall in rice production. Collection of timber is banned from the protected area causing the villagers to travel to far away Kon Khlaeng for their timber needs.

The loss of agricultural lands due to the protected area has resulted to encroachment (20%) on the surrounding State Forest. This was exacerbated by an increase in cassava prices in the neighbouring Thailand.

The general perception of the local populations regarding ATT is unsurprisingly negative (88%). This is probably because the local populations passively participate in the management of the protected area and due to the lack of understanding of the aims of the conservation project. Participation in the management of the protected area is limited to attendance of meetings where the villagers are informed about decisions made by the management with little or no considerations of their opinions.

The findings also indicated conflicts over use of water resources between the studied villages and other villages and the Forest administration. Due to problem over management of water in the reservoir and control over the gates, there is flooding of rice fields upstream and the local blame the protected area management authorities (WCS) for this. The water issue is actually a complex one and involves different actors. The figure below illustrates a situation map of the conflict.

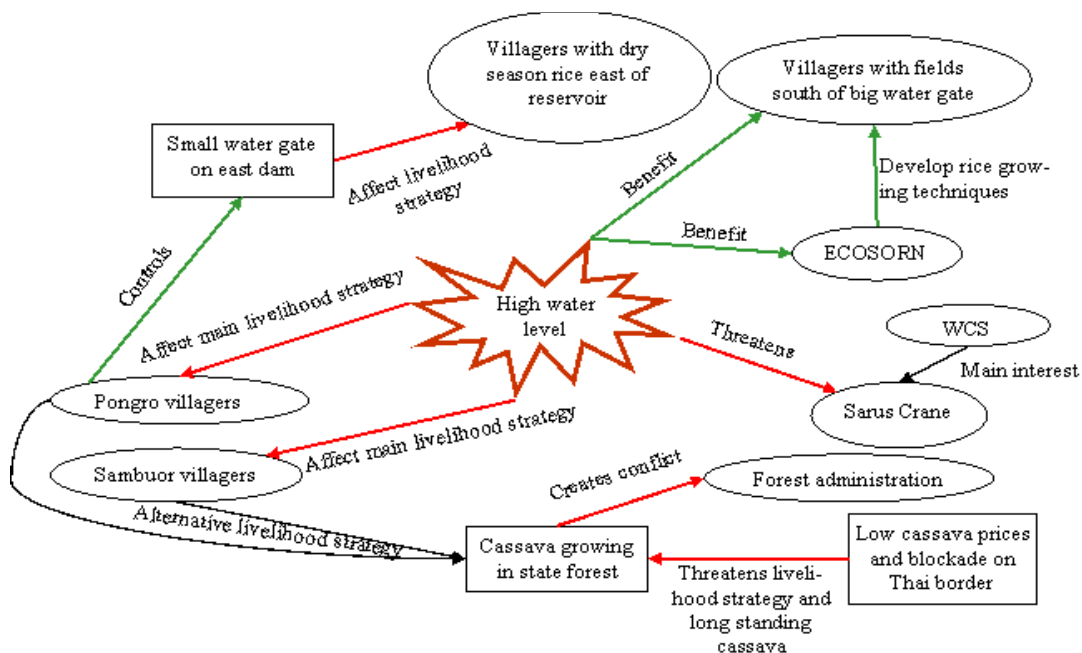


Figure 1- Situation map presenting the involved parties and the effects of the conflict with the high water level in the reservoir. (Model adapted from Friedman & Miles, 2006)

5. CONCLUSION

The designation of the protected area has had a strong bearing on the local livelihoods of the surrounding communities due to restrictions to access and user-rights to land and management of resources around the area.

The poor management of natural resources especially water is at the centre of conflict between villages on one hand, and the communities and the State on the other hand.

The passive participation of the villagers in the management of the protected area and lack of understanding of the project by the communities has led to negative perception by the villagers.

This case study demonstrates the difficulties in finding the balance between conservation and development and the importance of sufficient level of participation of local populations for the success of ICDP projects. Biodiversity conservation and local livelihoods are integrated and therefore conservation and development should be mutually supportive.

Acknowledgements

This study benefited from the contributions of Aaron Wan, Astrid Wodschow, Dragana stojkovic and Kasper Møller. The study was carried out as part of the SLUSE Course Interdisciplinary Land-use and Natural resource management, Cambodia 2009.

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