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Who determines biodiversity? An analysis of actors' power and interests in community forestry in Namibia☆,☆☆

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ABSTRACT

Recent and ongoing research has begun to question the efficacy of community forestry programs. In particular, analysis seems to reveal that devolution of power to the local resource user does not happen. Nevertheless, it also appears that community forestry programs do deliver some of their promises. Especially, the biodiversity of the resources involved is often improved. But who determines this, if not the local resource user? This article seeks to answer this by analyzing the biodiversity of 14 community forests in Namibia. The authors apply their power theory and methodology to identify the powerful, actors and these actors' interests. Finally, the author relates his findings to the real outcomes for biodiversity.

The article concludes that biodiversity is only in the interest of a few powerful actors who have used their power to achieve a positive outcome for biodiversity. Therefore, the article argues that biodiversity in community forestry depends on the interests of powerful actors.

1. Introduction

Community Forestry (CF) programs aim to improve the livelihood of local people as well as the condition of natural resources on which they depend for their living. If local people were involved in decision-making processes concerning natural resources, they would develop a sense of ownership and start using them in more conservative ways (Agrawal, 2002). It is assumed that the involvement of local natural resource users will contribute to sustainable practices, leading to various positive outcomes for the direct users and natural resources (Kellert et al., 2000; Blaikie, 2006).

Various community forestry programs were and continue to be implemented around the world. It seems that these approaches enjoy worldwide popularity. They started to develop after the 1970s, when researchers and policy makers realized that conventional centralized management practices were not the right approach for tackling environmental protection issues involving local people. In addition, many researchers have started to look more closely at the problem of how to solve natural-resource related problems when these involve local users. Many of them have concluded that this requires power devolution to the local users, even at the community level (Ostrom, 1999; Acharya, 2002; Lachapelle et al., 2004; Nygren, 2005). Furthermore, many other investigations were conducted to explain how the social processes of community forestry function within the community (Pye Smith et al., 1994; Ostrom, 1999; Agrawal and Gibson, 1999; Gibson et al., 2000; Barrow et al., 2002; Moran and Ostrom, 2005; Thomas, 2008).

It appears that, at least, community forest approaches deliver on their promises in that positive ecological outcomes are achieved (Brendler and Carey, 1998; Chakraborty, 2001; Dietz et al., 2003; Thomas, 2006; Charnley and Poe, 2007; Adhikari et al., 2007; Singh, 2008; Wollenberg et al., 2008; Devkota, 2010; Vodouhe et al., 2010; Maryudi, 2011; Pandit and Bevilacqua, 2011).

What about the direct resource users? Maryudi (2011) analyzed community forests in Java, Indonesia and concluded that local forest users were not benefitting significantly, neither in empowerment nor in livelihood improvements. Devkota (2010) has presented similar findings, and according to Edmunds and Wollenberg (2001:192), it is likely that the poorest forest user has become worse-off than before. Shackleton et al. (2002) conclude: "The way in which local people realize the benefits of devolution differs widely, and negative trade-offs, mostly felt by the poor, are common." In addition, Wollenberg et al. (2008) conclude that neither the co-management nor the local government model have met the high expectations of the community forest program. A number of researchers (Ribot, 2004, 2009; Larson, 2005; Blaikie, 2006; Dahal and Capistrano, 2006) have analyzed the common practice and have shown that decentralization policy is seldom followed by genuine power devolution to the local users. Edmunds and Wollenberg (2001) report similar findings, i.e., that local institutions are vulnerable to external powerful actors and that these powerful actors are more likely to dominate the processes. Agraval and Gibson (1999, p. 629) suggested that it would be "more fruitful" to focus on "internal and external institutions that shape

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the decision-making process" and that it is important to know what the multiple interests of the actors are, and how they make decisions regarding natural resource conservation. The same is suggested by Shackleton (2002, p. 1): "More powerful actors in communities tend to manipulate devolution outcomes to suit themselves".

Considering all this, we started to wonder whether community forestry programs are suitable for the achievement of power devolution and the fulfillment of its promises. To contribute to the scientific discourse, we designed a research project which involves community forest case studies from 9 countries around the world. The aim was to obtain results which allow international comparisons. We developed our own power theory and methodology to find out who the powerful actors were, and we analyzed their interests as well as the ecological, social and economic outcomes. Our research aims to test the following hypothesis in each country: "Outcomes in community forestry depend on the interests of powerful actors". We would wish that our results could contribute to the fulfillment of the needs which Shackleton (2002, p1), identifies in her conclusion: "A sheared framework, more accountable to local livelihood needs and people's rights to self-determination, is required…".

Due to the complexity of the research project this article will only focus on the issues of biodiversity as an ecological outcome, and the powerful actors and their interests in community forestry in Namibia.

2. Methodology

This research was conducted in separate field research periods from November 2007 to November 2009. It focuses on the CFN (Community Forestry Namibia) project (formerly known as Community Forestry in North Eastern Namibia (CFNEN)). With the funds available for the field research, fourteen community forests could be selected as appropriate case study areas.

The selection was done after consultation with local forest experts. The selection criteria included the development status of the community forest, where 7 community forests were in the advanced stage (forest management rights are handed over officially) and 7 others in the initial stage (this being the establishment phase). The case study areas are located in northeast Namibia and are distributed in three core CFN Project regions (Otjozondjupa, Kavango and Caprivi). It was assumed that most of the actors involved were still available during the research since all community forests were active and supported by the project. Apart from this, the researcher was familiar the regions, could speak some of the local languages and had good contacts to the actors of the CFN project. These are the reasons why the selection in these three regions was confirmed for the case study.

2.1. Actor-power analysis

To work with this number of cases we developed a sequence design of preliminary quantitative and follow-up qualitative methods to save resources. We assumed that a sequence of quantitative and the qualitative surveys could save about half of the resources needed for the field work as compared to a single qualitative method. At the same time, the quality of the research could be kept high by having flexibility in the formulation of hypotheses and in the search for empirical evidence. Good validity was secured by starting based on radically simplified hypotheses and then formulating increasingly complex hypotheses, step by step, based on existing theories but remaining within in the framework of the initial hypothesis. This means that we simplified the hypothesis for the quantitative survey in a way such that we were able to say that there were only two groups of actors, powerful ones and less powerful, without explaining why. In the second step we were then looking only at the powerful actors. We then made the hypothesis complex and tried to explain their power status. According to Schusser et al. (2012) this method fulfilled its promises and reduced the actual number of months of work needed for one qualified researcher down to 40% as compared to an approach with a single qualitative method.

The sequence design starts with a preliminary quantitative network survey. It aims to identify most of the participating actors, their power and the most powerful actors. We consider not only individual persons to be actors, but also institutions and organizations if these have the possibility to intervene in community forestry by themselves. According to our own power theory (Krott et al., in review) which was used by Devkota (2010) and Maryudi et al. (2011), we define actor-centered power as a social relationship between different actors. We define the power of an actor as the ability to influence the behavior of another regardless of the latter's will. The model of actor-centered power is built on three power elements an actor might have to exercise power. These are coercion, incentives and trust, which we define as follows:

- Coercion: altering the behavior of another actor by force
- Incentives: altering the behavior of another actor by providing advantages (or disadvantages)
- Trust: alteration of another actor's behavior due to his accepting information without verifying it

To identify the actors and their power elements, a network analysis technique was used and adopted, where a snowball sampling technique (Hasanagas, 2004; Patton, 1990) was applied to identify all actors. A special kind of interview called survey research interviewing (Neumann, 2011) was conducted. Semi structured, in-depth interviews were used to get interviewees' opinions, views and interpretations of the reality of the actors' power (Walsham, 1995). In a second step the preliminary findings were enriched through any kind of evidence, e.g., observations and/or documents.

The research started with a quantitative preliminary network survey in pre-selected community forests. A snowball interview technique was used, interviewing first the chairperson, and if he was not available, another member of the community forest management committee. The interviewee was asked to mention all actors with whom they cooperated for any of their community forest activities. This question was addressed to all actors mentioned, always referring to the selected community forests, until no new actor appeared. The interviewee was asked to evaluate the actors which he had mentioned before (assessment by others). An experienced researcher asked the questions in a way which the interviewee could understand. Through his cultural understanding the researcher could offer "face-saving alternatives" (Neumann, 2011) to keep the social desirability bias small. All answers given for each individual actor and the three corresponding power elements were summarized to complete the quantitative preliminary study.

To determine, from that information, which actors belonged to the group of powerful actors, a simple but justifiable and reliable method, called the dominance degree (D_m) (Häni, 1987) was applied. The method was discovered in the field of economics (Schmidt, 2005) and it tried to identify the group of actors who dominate the group of all actors executing power on the same market. The method was examined and tested via the three following assumptions:

Assumption 1. The power element values are equal, indicating that all actors have the same power and are weak within the network.

Assumption 2. The power element values are distributed in progressive stages (gradational). This means that everybody has two neighbours with more or less the same power. In this case a large number of actors are needed in order to establish a strong alliance.

Assumption 3. The power is unequally distributed and few actors have high power element values, which identify the strongest actors, those which make up the powerful actor group.