

Forests as service providers: A political Ecology of Payments for Ecosystem Services (PES) in Brazil (working title)

Paying for Ecosystems` Services

Recently, an increasing number of projects for the Payment for Ecosystem Services (PES) has been implemented in order to protect natural resources. Economic and market based instruments are increasingly outweighing traditional command and control approaches in environmental politics. For example, the 2009 budget of the United Nations Environmental Program (UNEP) ranged between 13 and 15 million USD.¹ Whereas the worldwide market size of public and private PES was estimated at approximately 30 billion USD per year². The logic of such projects is to pay people who are enabling the environment to provide a certain service a price for this service. Usually, the services which are paid for in such systems are the provision of clean water, the maintenance of biodiversity and the maintenance of liveable climates and atmospheres through carbon sequestration.

The concept of ecosystem services (ES) stresses the societal dependency on ecological life support systems and explains these systems as services provided by ecosystems to human society. Since the last decade of the 20th century these services are increasingly being monetized in order to measure and demonstrate their actual economic value. Different Markets and Payments for Ecosystem Services have been developed as places to trade the services between sellers and buyers. The trading of carbon dioxide stored in the biomass of trees has especially gained in importance over the last years. Forests are attributed economic values depending on the measured or estimated amount of carbon dioxide they contain. This aims to contribute to the Reduction of Emissions resulting from Deforestation and Forest Degradation (REDD) and thus help maintain the ecosystem service of carbon sequestration.

REDD plays a crucial role in Latin America, mainly due to the Amazon Forest, which is one of the largest areas of tropical rainforest in the world. The largest part of Amazon rainforest belongs to Brazil, which in 2008 established the Amazon Fund (Fundo Amazônia) to bundle international money for financing REDD-activities. Although not yet an official mechanism approved by the international climate negotiations, Brazil`s ministry of environment counted already 16 public and private REDD-projects, pretending to reduce the emission of more than 3.3 billions of CO₂ and spanning 32 million hectares of forests³. This is almost the size of Germany, and it is likely that new projects were started since then. More than one billion USD were pledged or promised to the Amazon Fund, mainly by Norway.⁴ In addition to the public projects, a considerable number of private projects is aiming to generate carbon credits for the voluntary carbon market.

Negotiating PES

Although PES projects are realized on local scale, usually a watershed or a certain area of forest, they are mostly implemented and/or intermediated by globally acting public, private or non-governmental organizations. Thus, PES are discussed in complex arenas of multi-level actors and important criteria

¹ http://www.unep.org/rms/en/Financing_of_UNEP/Regular_Budget/index.asp, 02/23/2011.

² Milder, J. C., S. J. Scherr, and C. Bracer (2010). Trends and future potential of payment for ecosystem services to alleviate rural poverty in developing countries. *Ecology and Society* 15(2): 4.

³ Serviço Florestal Brasileiro (without year): Experiências brasileiras em REDD.

⁴ http://www.amazonfund.gov.br/FundoAmazonia/fam/site_en, 02/28/2011.

and decisions are negotiated between groups and individuals with different levels of power. The PES-concept is based on the market as its central element, which leads to the understanding of ecosystem services as commodifiable. Following constructivist theories, the market is not a reality, but needs to be seen as a social construct. Discourse theory and approaches of political ecology assume that social reality is constructed by discourses, which are closely related to knowledge and power. Based on these assumptions, the understanding of ecosystems as service providers needs to be seen as a product of discourses and power structures. Consequently, it is likely that conflicts and imbalances of knowledge and power appear within these discourses and the thereupon based practical PES schemes. This will influence the feasibility of the approach. However, PES research, which has increasingly grown important over the last five years, has so far not addressed these issues.

Objective, Approaches and Questions of the Dissertation

The main objective of the thesis is to analyze and systematize on a multi-level scale the central topics, actors and positions in the discourse on (P)ES and REDD. It aims to understand the social concepts and constructs behind the ES approach and how the discourses impact practical PES and REDD schemes. A special focus will be laid on analyzing conflicts of knowledge in the (P)ES and REDD discourses and their relation to different power structures. The research aims at gaining knowledge about the long term feasibility of the PES approach and its impacts on social, political, ecological and economic processes.

Based on approaches of Discourse Analysis and Political Ecology and using a multi-level approach, the study concentrates on three main research areas:

1. Central actors, knowledge, knowledge conflicts and power in discourses of ES, PES and REDD.
2. Knowledge conflicts and structures of power in the PES/REDD practice (two case studies in Pará).
3. Impacts of „commodifying“ ES and resource users specializing on selling these services.

Within these areas, questions as the following will be studied:

- What are the cultural, social and historical roots and contexts of the (P)ES concept and how are they influenced by discourses?
- How can the power structures and knowledge cultures of the discourses and practical projects on P(ES) and REDD be described?
- What is the specific knowledge and related power of the intermediaries in PES/REDD schemes?
- How do knowledge and power structures of discourses and projects influence each other?
- How does the commodifying and monetizing of ES impact the long term commitment to nature conservation of the involved local people?
- What are the social and cultural implications that poor landholders become specialized providers of the service “carbon sequestration”?

To answer these research questions, a discourse analysis on ES, PES and REDD will be conducted in a first step. In a second step, field studies of probably two REDD projects in the Brazilian Federal State of Pará are planned. The field research will develop actors' maps and collect qualitative Data through (semi)structured interviews. A third step will link the discourses with the field data and analyze how they influence each other.