Is REDD+ effective, efficient, and equitable? Learning from a REDD+ project in Northern Cambodia

Iben Nathan[a], Maya Pasgaard[b],*

[a] Department of Food and Resource Economics, Faculty of Science, University of Copenhagen, Rolighedsvej 25, DK-1958 Frederiksberg C, Denmark
[b] Department of Geosciences and Natural Resource Management, Faculty of Science, University of Copenhagen, Øster Voldgade 10, DK-1350 Copenhagen K, Denmark

ABSTRACT

REDD+ is a global scale climate change mitigation program aiming at creating financial values for carbon stored in forests. According to the proponents, REDD+ is an effective, efficient, and equitable mechanism for reducing emissions from deforestation and forest degradation. Some scholars question this assumption, and some call for further analysis to understand how REDD+ can contribute to economic, environmental, and social goals, and what are the synergies and trade-offs between them. The purpose of this paper is to contribute to the debate about whether REDD+ projects can be brought to accommodate economic (efficiency), environmental (effectiveness), and social (equity) concerns at the same time by drawing on own field results from a REDD+ project in Cambodia. The paper follows three tracks. The first is to develop and explain the conceptual and analytical framework for our empirical investigations. The second is to explain the field results. The third track is to discuss what general lessons can be learnt. Our case illustrates some of the mechanisms that are likely to work against the willingness and ability of REDD+ projects to ensure local people's net-gains, and the risk that effectiveness and equity will suffer if REDD+ projects rely solely on the private market. Our case thus indicates a tension between the objectives of creating financial value from carbon stored in trees through the private market, and environmental and social equity concerns. However, we call for more comparative studies of REDD+ projects, and hope our conceptual framework can assist such studies.

1. Introduction

Reduced Emissions from Deforestation and Forest Degradation (REDD+) is a global scale climate change mitigation program aiming at creating financial values for carbon stored in forests, and aimed at offering incentives to reduce greenhouse gas emissions from deforestation and forest degradation (WorldBank, 2013). According to REDD+ proponents, emission reductions are easiest, cheapest, and fastest in the Global South (Dokken et al., 2014), and REDD+ has the potential to contribute to sustainable development by transferring money from the North to the South (Bumpus and Liverman, 2011; UN, 2009b). REDD+ proponents also expect social co-benefits in terms of jobs, improved livelihoods, land tenure clarification, enhanced participation, and improved governance (Sunderlin et al., 2014; Torpey-Saboe et al., 2015). The proponents, thus, tend to focus on the synergies between environmental, financial, and social goals, and see REDD+ as an effective, efficient, and equitable mechanism for reducing emissions from deforestation and forest degradation (Duchelle et al., 2014; UN, 2011; Visseren-Hamakers et al., 2012).[1]

However, it remains a question whether REDD+ *can* be effective, efficient, and equitable at the same time. Furthermore, there is a call for further analysis to understand effectiveness, efficiency, and equity including how they interact, and what are the synergies and trade-offs between them (e.g. Chhatre et al., 2012; Pascual et al., 2010; Pham et al., 2014).

The main purpose of this paper is to contribute to the debate about whether and how REDD+ projects best can be brought to accommodate economic (efficiency), environmental (effectiveness) and social (equity) concerns at the same time by drawing on own field results from a REDD+ project in Cambodia.

For our purpose, we follow three tracks. The first is to develop and explain the conceptual and analytical framework that guided our empirical investigations, and which we also hope will be useful for analysing and comparing other REDD+ projects in the future. Since the three concepts (effectiveness, efficiency, and equity) tend to overlap, including in the REDD+ debate, we have aimed at defining, operatio-

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* Corresponding author.
E-mail addresses: in@ifro.ku.dk (I. Nathan), mapa@ign.ku.dk (M. Pasgaard).

[1] Scholars from the Center for International Forestry Research (CIFOR) often apply the acronym 3E or 3E+ (e.g. Angelsen et al., 2012). The "+" is added when emphasizing co-benefits.

nalizing, and "disentangling" them in order to make them applicable for analyses. The second track is to explain our field results. The third track is to discuss what general lessons can be learnt.

In the following, we first elaborate on the REDD+ background before we explain our conceptual framework in Section 3. In Section 4 we introduce the research area, the project, and our field methods. In Section 5 we present our results. In Section 6 we discuss the lessons learnt from the project and conclude.

2. Background: From a contested global mechanism to a local pilot project in Northern Cambodia

The REDD mechanism was initiated in 2005 at the Conference of the Parties' eleventh meeting in Montreal, and the concern about carbon stock enhancement, conservation, and sustainable forest management indicated by the (+) was added in 2009. The United Nations with their UN-REDD+ program and the World Bank with their Forest Carbon Partnership Facility (FCPF) are currently the main international organizations supporting REDD+ at international and national scales, but a range of other organizations engage in local REDD+ projects globally (Canby et al., 2014; Duchelle et al., 2014; Pasgaard and Mertz, 2016). Many projects are at the planning stage, whilst others are being implemented (see Cerbu et al., 2011).

An increasing number of scholars are more critical. Some question the effectiveness and efficiency of REDD+. Hirsch et al. (2011) note that REDD+ does not target the underlying drivers of deforestation, such as the global demand for timber, and the program involves transfers of large sums of money implying a high risk of corruption. Hansen et al. (2009) add that REDD+ is likely to be neither fast nor easy because powerful interest groups benefit financially from resource depletion and therefore are likely to resist changes.[2] Others question whether REDD+ actually will have a positive effect on social equity (e.g. Blom et al., 2010; Karsenty et al., 2014; Sikor et al., 2010). They point to the risk, for example, that national and local elites will dominate decision making processes and capture the benefits (e.g. Hansen et al., 2009; Milne and Adams, 2012). Yet others point to possible trade-offs between effectiveness, efficiency, and equity. Visseren-Hamakers et al. (2012) and Campbell (2009), argue that, since agriculture is one of the main deforestation drivers in many countries, successful REDD+ may impact food production and food security negatively. REDD+ policies could also result in local communities losing control of forests if governments or other powerful actors appropriate newly valuable forests (Agrawal et al., 2008; Hirsch et al., 2011). According to Pascual et al. (2010), the "efficiency framing" of PES (Payment for Ecosystem Services) and REDD+ is representative of a broader view, in which market-like instruments take an ever increasing prominence in environmental governance. They see the main tension between the original theoretical underpinnings of PES and REDD+ as intended to maximize value for money, on the one hand, and social equity considerations, on the other. They further argue that, although there are currently many efforts to include social safeguards in REDD+, there is still a need to integrate environmental with social concerns. On a similar note, Osborne (2015) demonstrates that the so-called tradeoffs between (market) efficiency and equity (sustainable development goals) may *not* be inherent to carbon forestry. She argues that centralization of forest governance and decision making into the hands of project implementers and brokers, and the technical requirements for carbon calculations have reshaped forest governance in ways that have undermined the potential social and ecological benefits. Holmes and Cavanagh (2016) suggest that neoliberal approaches to conservation often involves novel forms of power, oftentimes re-shaping local subjectivities in accordance with both conserva-

tionist and neoliberal-economic values. This can both increase negative social impacts and offer new opportunities for (some) local people to contest conservation projects. Martin et al. (2014) take a broader approach to inequality by exploring the relationship between local conceptions of justice and the more globally referenced justice principles embedded in the design of neo-liberal schemes. They stress that different perceptions of justice may result in conflicts and project failure. These multiple matters of concern framed under the umbrella of effective, efficient, and equitable REDD+ are reflected in the present paper, empirically informed by our case study in Northern Cambodia.

Cambodia joined the UN-REDD+ readiness program in 2009, but did not enter the implementation phase until 2011 (UN, 2015). In the meantime, other organizations started up REDD+ pilot projects in different locations with a view to inform national policies (Evans et al., 2012). Currently, the most prominent REDD+ projects in Cambodia are the Southern Cardamoms Protected Forest; the Seima Protected Forest and Northern Plains; and the Oddar Meanchey REDD+ project (Bradley, 2012; Evans et al., 2012; Yeang, 2012). The Oddar Meanchey project was implemented as early as 2008 as one of the first community-based REDD+ projects in the World and the first to be established in Cambodia. Its main objective was to demonstrate how developing countries can generate incomes from the carbon market with a positive impact on climate change and community livelihoods (TerraGlobal, 2012). Rather than functioning on a national scale with government-to-government efforts, as REDD+ is intended to do globally (Sunderlin et al., 2014; UN, 2009a), the Oddar Meanchey REDD+ project is a sub-national project in which multiple non-state actors are central in the implementation phase and eventually for the purchase of carbon credits. The same scenario accounts for hundreds of other so-called pilot or demonstration projects (Pasgaard and Mertz, 2016), which is why important empirical lessons about effectiveness, efficiency, and equity in REDD+ can be drawn from our selected case, along with relevant conceptual considerations. We base our discussion on own primary data from a field work in Cambodia in combination with secondary data, as detailed in Sections 4 and 5.

3. Towards an analytical framework for studying effectiveness, efficiency, and equity

3.1. Defining and operationalizing effectiveness in REDD+

This paper follows the commonly accepted definition of effectiveness as "achieving goals," or "valued outcomes" (Rutgers and van der Meer, 2010). The main valued outcome in REDD+ is environmental: to reduce emissions from deforestation and forest degradation. REDD+ is also defined by the added environmental goal of conserving biodiversity, by the economical goal of creating financial value from carbon stored in trees, and increasingly by social equity goals (Peskett, 2008; UN, 2011). In principle, questions about effectiveness in REDD+ therefore should also be about achieving each of these goals.

Since the concepts of *economic effectiveness* and *efficiency* are in general used more or less synonymously, we find it more practical to approach economic effectiveness under the heading of efficiency, cf. Table 3.1. Likewise, it is natural to approach social effectiveness (achieving social equity goals) as part of the social equity discussion. With those distinctions in mind, we devote the rest of the present Section to the question of how to define and operationalise environmental effectiveness in REDD+ looking at reduced carbon emissions.

There is no agreement about how to evaluate environmental effectiveness of REDD+. Proposed criteria include the extent to which emissions are additional to a business-as-usual scenario (*BAU*) i.e. what would have occurred without REDD+ (*additionality*); the extent to which REDD+ covers different types of forest and forest users (*scope* and *depth*); its ability to meet diverse local conditions and unknown future changes (*flexibility and robustness*); whether it can prevent displacement of emissions (*leakage*); and whether it can ensure long-

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[2] See also Burgess et al. (2010), Dooley et al. (2011), Ghazoul et al. (2010), Hansen et al. (2009), Hirsch et al. (2011) and Thompson et al. (2011).