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Analyzing the perception of deforestation drivers by African policy makers in light of possible REDD+ policy responses

Johanna Wehkamp [a,b,*], André Aquino [c], Sabine Fuss [a], Erik W. Reed [c]

[a] Mercator Research Institute on Global Commons and Climate Change (MCC), Torgauer Str. 12–15, 10829 Berlin, Germany
[b] Technical University of Berlin, Straße des 17, Juni 135, 10623 Berlin, Germany
[c] World Bank, 1818 H Street, Washington, DC 20038, USA

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ABSTRACT

As REDD+ countries are moving towards the implementation phase of their national REDD+ programs, it becomes crucial to better understand what drives deforestation in order to identify policy responses. This however, remains challenging because, while the number of scientific assessments of deforestation drivers is increasing, they often reach diverging conclusions. Deforestation drivers can have long underlying causal chains and take different shapes depending on the perspective that is chosen. As states are the official owners of forests in most African countries, analyzing the perspective of policy makers on deforestation in this context, helps revealing deforestation drivers that are harder to quantify, define and measure with usual proxies. It also potentially allows identifying politically and institutionally feasible deforestation reduction measures.

In this paper content analysis is used to assess how African policy makers perceive deforestation drivers. We find that they strongly emphasize the role of institutional and policy drivers. Furthermore, we find that some of the complex issues related to forest governance in general, can be narrowed down to very specific problems. In light of these findings, we will argue that mechanisms and standards have to be found to allow institutional and policy drivers of deforestation to be addressed in the result-based payments phase of REDD+.

1. Introduction

With deforestation accounting for around 3.0 ± 1.1 Gt CO_2 of global greenhouse gas emissions between 2000 and 2005 (Harris et al., 2012), REDD+ (reducing emissions from deforestation and forest degradation) is a critical policy instrument for climate change mitigation and has been discussed at the international negotiations on climate change since 2005 (UNFCCC, 2005). REDD+ is planned to be rolled out in three phases: the readiness phase, when national technical and institutional capacity is developed, the implementation phase, when institutions are established, and the results-based payments phase, when payments for reduced emissions from deforestation are made to tropical countries (Meridian Institute, 2009).

Countries are moving progressively towards the implementation phase of REDD+, with an ongoing reflection on strategies to reduce deforestation based on analyses of its drivers (Aquino and Guay, 2013). Deforestation drivers describe the causes of the removal of trees and the conversion of land to other uses (Van Kooten and Bulte, 2000). In order to be able to identify feasible policy responses to deforestation, it is important to put the analysis of drivers into the perspective of possible policy responses. However, determining the relative importance of different drivers of deforestation is challenging for two reasons in particular.

First of all, measurements of deforestation are still unreliable, especially for many African countries, despite the improvement of access to and quality of satellite images over recent years (Grainger, 2008; Lewis et al., 2009; Rudel, 2013; Williams et al., 2007). The availability of data on explanatory variables is an even greater problem. There are many drivers that remain hard to identify, define and measure as such, and where consequently finding adequate proxies remains a challenge as well. It is very hard for most countries to attribute percentage shares of emissions from deforestation to specific drivers. That complicates both policy focus and response.

Secondly, because decision-making impacting deforestation occurs on many levels, causal chains can be very long and various different drivers may coexist. The causes of deforestation can therefore take different shapes depending on the chosen perspective.

However, when analyzing deforestation drivers in light of possible policy responses, it becomes important to consider the perspective of actors who are in key positions to structurally reduce deforestation. In most African countries, forests are officially owned by the state (Agrawal et al., 2013). While many actors might indirectly drive

* Corresponding author at: Mercator Research Institute on Global Commons and Climate Change (MCC), Torgauer Str. 12–15, 10829 Berlin, Germany.
E-mail addresses: wehkamp@mcc-berlin.net (J. Wehkamp), adeaquino@worldbank.org (A. Aquino), fuss@mcc-berlin.net (S. Fuss), ereed1@worldbank.org (E.W. Reed).

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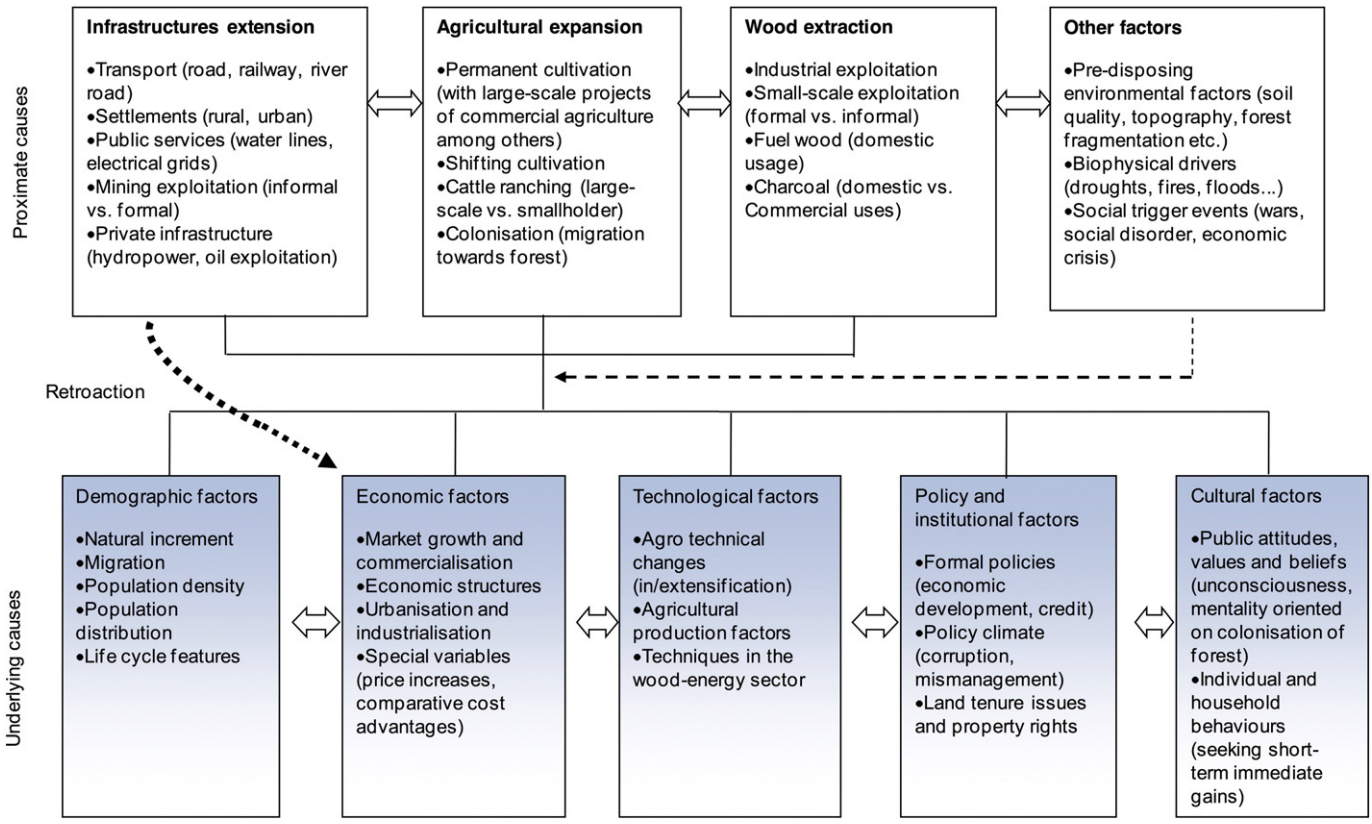

Fig. 1. Framework for the analysis of drivers of deforestation provided by Geist and Lambin, 2001 (as cited in the R-PP of the Democratic Republic of the Congo).

deforestation, states are at least theoretically in a key position to establish and enforce rules for sustainable resource use (Wehkamp et al., 2013). Taking a closer look at the policy makers perception of the problem is a first step towards a better understanding of drivers that are hard to define, quantify and measure.

In this paper we use content analysis to analyze the perception of deforestation drivers as described by African policy makers in national REDD+ Readiness documents.[1] Section 2 will provide an overview of the existing literature on deforestation drivers and explain how this study adds to it. Section 3 describes the methodology of the analysis, and Section 4 presents the results.

2. Literature review

Academic research on deforestation drivers, especially in the African context, has been shaped by pronounced controversies in the past.

For instance, while international development banks have supported logging projects, arguing that they allow countries to sustainably harvest tropical forests (Bowles et al., 1998; Wilkie, 1992), others argue that logging is a major cause of deforestation (Laporte et al., 2007; Rice et al., 1997). The role of population growth in deforestation has been similarly disputed, with a number of authors arguing that it is an important predictor of deforestation (DeFries et al., 2010; Jha and Bawa, 2006; Myers, 1993; Pahari and Murai, 1999; Rudel, 1989), and others arguing that population density only drives deforestation, if combined with certain socio-economic factors (Westoby, 1979). Furthermore, while some argue that land tenure rights decrease deforestation (Jaramillo and Kelly, 1997; Mendelsohn, 1994), others find that securing land tenure rights can actually increase deforestation, if the general policy frameworks sets deforestation-increasing incentives (Angelsen, 2007).

More recently – especially in reaction to an analysis by DeFries et al. (2010) – Fisher (2010) highlights that population growth and urbanization alone do not explain deforestation in the African context. Instead, he identifies subsistence farming and the extraction of fuelwood as major drivers there. Other authors support this view (Boucher et al., 2011; Brink and Eva, 2009; Sanford et al., 2011).

In a meta-analysis Ferretti-Gallon and Busch (2014) find, that while the number of peer-reviewed, spatially-explicit publications on deforestation has drastically increased in the last 20 years — from 2 to up to 20 new articles published per year — most of them still reach contradicting conclusions.

This becomes even more pronounced when taking qualitative analysis and case study evidence into account as well, as in a meta-study completed by Geist and Lambin (2001). The authors distinguish between direct and indirect drivers of deforestation and find that next to the abovementioned drivers, infrastructure extension (also supported by (FAO and ATIBT, 1999; Laurance, 2009; Reid and Bowles, 1997)), agriculture and wood extraction (Chomitz et al., 2007; Gibbs et al., 2010; Hosonuma et al., 2012; Mitchard and Flintrop, 2013), soil quality and other biophysical drivers, as well as social trigger events, economic factors (Chidumayo, 1989; Rademaekers et al., 2010; Schueler et al., 2011; Swenson et al., 2011; Von Amsberg, 1998), technological, policy and institutional factors (Angelsen and Kaimowitz, 1999; Bhattarai and Hammig, 2001, 2004; Buitenzorgy and P J Mol, 2011; Culas, 2007; Galinato and Galinato, 2012; Kissinger et al., 2011; Koyuncu and Yilmaz, 2013; Rametsteiner, 2009) and cultural factors drive deforestation. An overview of their framework is provided in Fig. 1.

This reveals that finding a definite and generally acceptable explanatory model of the causes of deforestation is a complex task. There are two notable dimensions of complexity that deserve further attention.

[1] Next to many bilateral initiatives (most notably supported by the Norwegian government), two multi-donor programs, the Forest Carbon Partnership Facility managed by the World Bank, and the UN-REDD Programme, provide support to over 54 countries in the REDD+ readiness phase.