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"Development on the margin"

## Who Knows? Indigenous versus Scientific Knowledge about Local Forest Change Dynamics in the Zambian Copperbelt

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## Abstract

The issues of deforestation and forest degradation have gained new international attention because of its role in mitigating carbon emissions. REDD (Reduced Emissions from Deforestation and Degradation) has been proposed as a means to mitigate loss of carbon stored in forests. In Zambia a REDD scheme is now being initiated at national level with the intention to implement local level projects at a later stage. A successful implementation, among other things, rests on the ability to assess the rate of deforestation and forest degradation and to identify drivers causing forest carbon loss – both at national and local level. At local level, such information can be obtained from several sources. This paper explores the relationship between two of these sources in relation to forest change dynamics; indigenous and scientific knowledge. First, the paper investigates to what extent perception based data from household surveys concerning forest change correlate with time series remote sensing data for two forest transition locations in the Copperbelt in Zambia. It finds that forest loss estimates derived from perception surveys largely are in congruence with estimates based on remote sensing observations. The paper then analyses how various actors of local forest governance (local people, customary leaders and government officials) perceive the causes of forest change. It is found that actors hold quite different opinions about what drives forest change and rely on both scientific arguments as well as indigenous knowledge to substantiate their explanations. The paper brings to attention that both scientific and more context specific indigenous knowledge have roles to play in REDD implementation but also that both types of knowledge cannot be considered unbiased or discrete but are influenced by prevalent discourses as well as political interests.

Keywords: Forest, indigenous knowledge, politics, REDD, scientific knowledge

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