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Timber or Non-Timber Forest Products: How do stakeholders perceive the ecosystem services provided by tropical forests in Central Africa?

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ABSTRACT:

Ecosystem services (ES) correspond to the benefits provided by ecosystems to humans. The integration of environmental, economic and social approaches in ES assessments is essential to strengthen policy decisions on land use planning. However, most ES valuations only use ecological and economic approaches. Social research methods are generally neglected, despite their fundamental relevance. Few studies assessed ES perceptions in developing countries, particularly in sub-Saharan Africa where the need for sustainable ecosystem management is vital. The aim of this study is to analyze the perceptions of the ES provided by southeastern Cameroonian forests to local populations. Perceptions of ES have been analyzed in three contrasted forest land uses: (i) three community forests, (ii) a protected area, and (iii) a FSC-certified logging concession. A total of 225 forest stakeholders were interviewed using a two-section questionnaire. Firstly, respondents were asked with an open question to describe interests and usefulness of their ecosystem. Secondly, eighteen ES classically attributed to tropical forests were listed, and respondents had to determine at which degree those services are provided or not, with a short justification. The ES bundled in provisioning, regulating and cultural services showed contrasted perceptions. Regulating services were perceived in the same way in the three land uses. Provisioning services were much important in community forests, followed by the logging concession and the protected area. In terms of cultural services, tourism activity was only reported in the protected area, and sacred places were mainly identified in the logging concession. As a conclusion, economic and ecological assessments of ES could significantly be strengthened and complemented with social approaches. Social techniques are clearly lacking in classical ES assessments, despite the need of an unequivocal understanding of stakeholders' demands and perceptions.