



Tropentag, September 20-22, 2023, hybrid conference
“Competing pathways for equitable food systems transformation:
Trade-offs and synergies”

Local perspectives on nonmaterial values of nature, biodiversity in rural communities in the Peruvian Amazon

GREMARY AZA¹, OLIVER FRÖR², JAN BÖRNER³

¹University of Passau, Bioeconomy Economics, Germany

²University of Kaiserslautern-Landau (RPTU), iES Landau, Inst. for Environmental Sciences, Germany

³University of Bonn, Center for Development Research (ZEF), Inst. for Food and Resource Economics (ILR), Germany

Abstract

Natural ecosystems provide a wide range of material and non-material benefits to human society. Despite the diversity of benefits, material benefits have been prioritised in research and policy-making. The management of ecosystems has been guided by political and economic decisions that directed attention toward the instrumental values of nature. In highly biodiverse ecosystems such as the Amazon Forest, there is little information about nonmaterial benefits and cultural ecosystem services perceived by local communities. There is a debate about whether biodiversity or forest cover is related to the perception of non-material benefits. Quantitative analyses were drawn from a dataset of 244 households living in different tropical rainforest cover levels in Amazonian Peru. Linear model regressions were computed for non-material benefits such as aesthetic, social relationships, recreational, identity, historical, kinship, and spiritual benefits. The results suggest that higher levels of forest cover are not necessarily related to the perception of non-material benefits. No differences were found by comparing perceptions of non-material benefits among three areas with different forest cover levels. Furthermore, higher values attributed to non-material benefits were explained by higher levels of forest cover only for recreation and historical benefits. It is demonstrated that other landscape characteristics such as the presence of forests and land area; socio-demographic and information factors are related to the perception and values attributed. The association of factors with perceptions and values differs among non-material benefits categories. The results of this study provide a guide about how local communities perceive the ecosystem and what non-material benefits they consider important to their lives. In the context of Madre de Dios, where forest ecosystems are threatened by high deforestation rates and migration patterns, the loss of cultural values related to nature should be addressed and incorporated into ecosystem management policies.

Keywords: Cultural ecosystem services, ecological economics, ecosystem services