A social perspective on on-farm tree functions, drivers of deforestation and land degradation: Togolese farmers perceptions

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Abstract

Deforestation and land degradation remain major, environmental, economic as well as social threats across the world. The present study reveals a social perspective on on-farm tree functions. In this context, it is assumed that perceptions of on-farm tree functions could play an important role in shaping the decision-making process for the entire agroecosystem. Therefore, looking at farmers when approaching on-farm tree functions is indispensable. This study investigated farmers' perceptions of the importance of on-farm tree function, drivers and effects of deforestation and land degradation in the Central region of Togo. We used a household survey coupled with focus group discussions to capture farmers' perceptions of deforestation, land degradation and on-farm tree functions. A total of 490 households were interviewed using a structured questionnaire and eight focus group discussions involving 21 farmers each (a total of 168 participants). The household survey revealed that the major causes of deforestation and forest degradation perceived by farmers included agricultural activities (85 %), population growth and urbanisation (71 %), fuel wood (56 %), and climate change (47 %). Land degradation evolved from the uncontrolled use of fertiliser (57 %), deforestation itself (57 %), lack of rain (56 %), extreme heat (41 %), inappropriate farming practices (36 %), and non-use of farmyard manure (8 %). The analysis also reveals that the perceived importance of two on-farm tree functions could predict the integration of trees on the farm: "income improvement" and "fuel wood". The study concluded that strengthening the importance of the "income improvement" function in farmers' minds can stimulate the plantation of trees. In the context of the implementation of restoration programs, investigating farmers' perceptions can significantly contribute to a bottom-up approach to sustainable forest landscape management.

Keywords: Deforestation, farmers' perceptions, land degradation, on-farm tree functions, social perspective

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