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Linking Agricultural Sustainability with Climate Change Mitigation and Peacebuilding: A Framework for Assessing Interventions

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Abstract

To achieve a sustainable future in rural conflict-affected areas, interventions to improve agricultural livelihoods that reinforce climate change mitigation and peacebuilding are needed. Therefore, a conceptual framework that allows an evaluation of the effects of these interventions is important. However, the current agricultural sustainability frameworks lack elements that integrate either peacebuilding or climate change mitigation, or both. An integrated framework that assesses simultaneously social, economic, environmental, climate change mitigation and peacebuilding dimensions would improve the evaluation of agricultural interventions. In this research, we develop such a framework. The proposed structure is based on the existing frameworks and takes into account different elements of them. Especially, the environmental, economic and social dimensions of sustainability that are frequently used. While peacebuilding and climate change mitigation are assessed transversally. The framework is adapted to the local context and allows obtaining results at various scales ranging from farm to value chain level. We tested the framework in a case study in Caquetá- Colombia, an area that has emerged from armed conflict. Furthermore, various agricultural interventions have been implemented as a means to achieve peace meanwhile reducing deforestation and forest degradation. To validate the framework, we interviewed 475 households and applied participatory approaches. For data analysis, we calculated an index that combines the dimensions through the Principal Component Analysis method. In the qualitative approach, we develop a barometer that reflects the effects of the human-environment interaction and visualises Caquetá's progress toward sustainability. Finally, we discuss how landscape-level climate change and peacebuilding outcomes vary according to the number of farmers who comply with the interventions in the agricultural sector.

Keywords: Agriculture, climate change mitigation, peacebuilding, rural development, sustainability