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“Development on the margin”

Impact Evaluation of the ICRAF Tree Domestication Program in the Peruvian Amazon: A System and Participatory-based Approach

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Abstract

Forests play a vital role in the global ecosystem by the provision of numberless benefits. The second largest share of Amazon rainforest, belongs to Peru. An exceptional total of endemic plants (20,000) make this region a strong candidate for conservation efforts.

The World Agroforestry Centre (ICRAF) by promoting systems of land use which involve trees as key ecological components intends to ameliorate, among others, deforestation. In 1995 ICRAF initiated the “Tree Domestication Program” (TDP) in the Peruvian region Ucayali to contribute to the slowdown of deforestation and to improve livelihoods. The aim was to identify and later develop improved germplasm of promising native tree-species. ICRAF-professionals therefore requested the participation of small farmers to identify profitable species. Later on these species had been tested in research stations and in farmer’s fields, and eventually the most successful ones were distributed for their extended cultivation.

Impact evaluation targets the broad, longer-term impacts or results, whether intended or unintended of a program. In this impact evaluation, a theory-based approach, which means examining the assumptions underlying the causal chain from inputs to outcomes and impact, has been chosen. Given the complex interrelations in the TDP with its various actors, its overlapping scales, the different values and interests involved and the socio-ecological interactions, systems thinking, complexity and post normal science offered the theoretical framework needed for the impact-evaluation. Methodologically, participatory rural appraisal and Vester® sensitivity model were applied to operationalize data collection and analysis.

A number of indicators were identified to describe the TDP system. The results show those indicators which have a greater impact on the system than others. Because different actors have different perceptions of how the TDP-system works, the results vary from one group to another. The results have shown that professionals involved into the TDP tend to emphasise economic and organisational indicators as most important impacts. Small scale farmers however seem to consider social indicators as more crucial. However both groups agree on that the critical of the TDP is income.

Keywords: Agroforestry, amazon, impact evaluation, participation, system analysis, tree domestication