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"Reconcile land system changes
with planetary health"

Scaling sustainable agricultural practices through innovation hubs in southern Mexico

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Abstract

Agrifood systems around the world must find ways to raise farm yields, productivity, and incomes, while adapting to and mitigating the detrimental effects of climate change and addressing the region's widespread malnutrition. Many efforts to achieve this have offered well-meaning but mostly short-lived project-cycle driven and unvalidated one-size-fits-all responses that fail to solve the actual problems of farmers across highly diverse agroecological and socioeconomic circumstances.

Multi-stakeholder innovation hubs can establish and strengthen the inclusive - and hence tailored - scaling of scientific knowledge and technologies in rural areas. This research offers a case study of the development and different articulations of three such hubs. Further, it derives lessons learned for the development of such hubs in other regions. The three hubs are located in southern Mexico (Oaxaca, Chiapas, and the Yucatan peninsula), focus on cereal-based production systems, and are a decade old. They aim to achieve food security locally by providing entry points for sustainable diversification and additional added value for farmer's products. While coordinated by a skeleton local CIMMYT staff of two persons, hubs' activities are maintained by an active network of stakeholders and partners. Results are based on mixed methods data: a review of scientific and grey literature and hub documents; qualitative data from small group discussions with heterogenous hub stakeholders during annual meetings of each hub; and quantitative data from the hubs' digital field log system.

The hubs have developed distinct infrastructures to support their work, including social, digital, physical, and knowledge infrastructures. While qualitative data shows similar patterns in the scaling of sustainable agricultural practices in the three hubs, quantitative data paints a more differentiated picture of which innovations are most adopted by hub participants, and which innovations they consider most important for future scaling activities. Lessons learned from the hubs' stakeholders' and staff's experiences during the past decade, when the hubs continued to function despite shocks including sudden funding crises and a global pandemic, offer valuable insights for such multi-stakeholder platforms operating in other areas.

Keywords: Conservation agriculture, innovations, mixed methods, scaling

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