

Piloting Integrated Systems Intensification through Innovation Platforms in Northern Nicaragua

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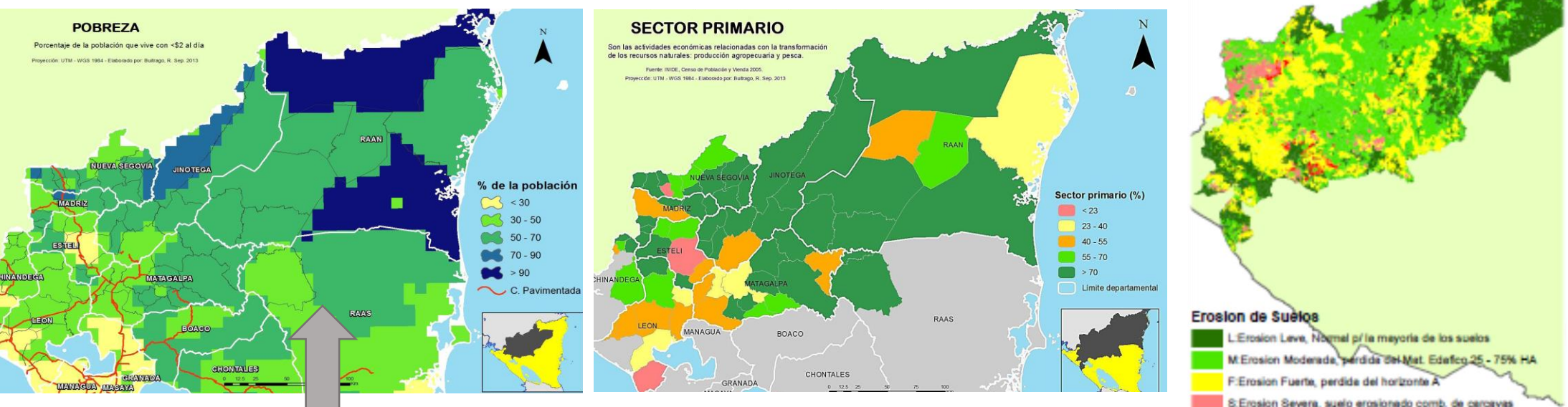
Steps in strengthening of territory innovation platforms in Northern Nicaragua

The approach aims to:

- 1) Enhance interaction and co-learning among partners with diverse roles in the innovation process in order to address the multiple objectives of intensification including increased income, nutritional security, socio-ecological resilience, and social equity.
- 2) Merge agroecosystem and family enterprise frameworks at the farm level and ecosystem services, governability and competitiveness at the local territory scale.

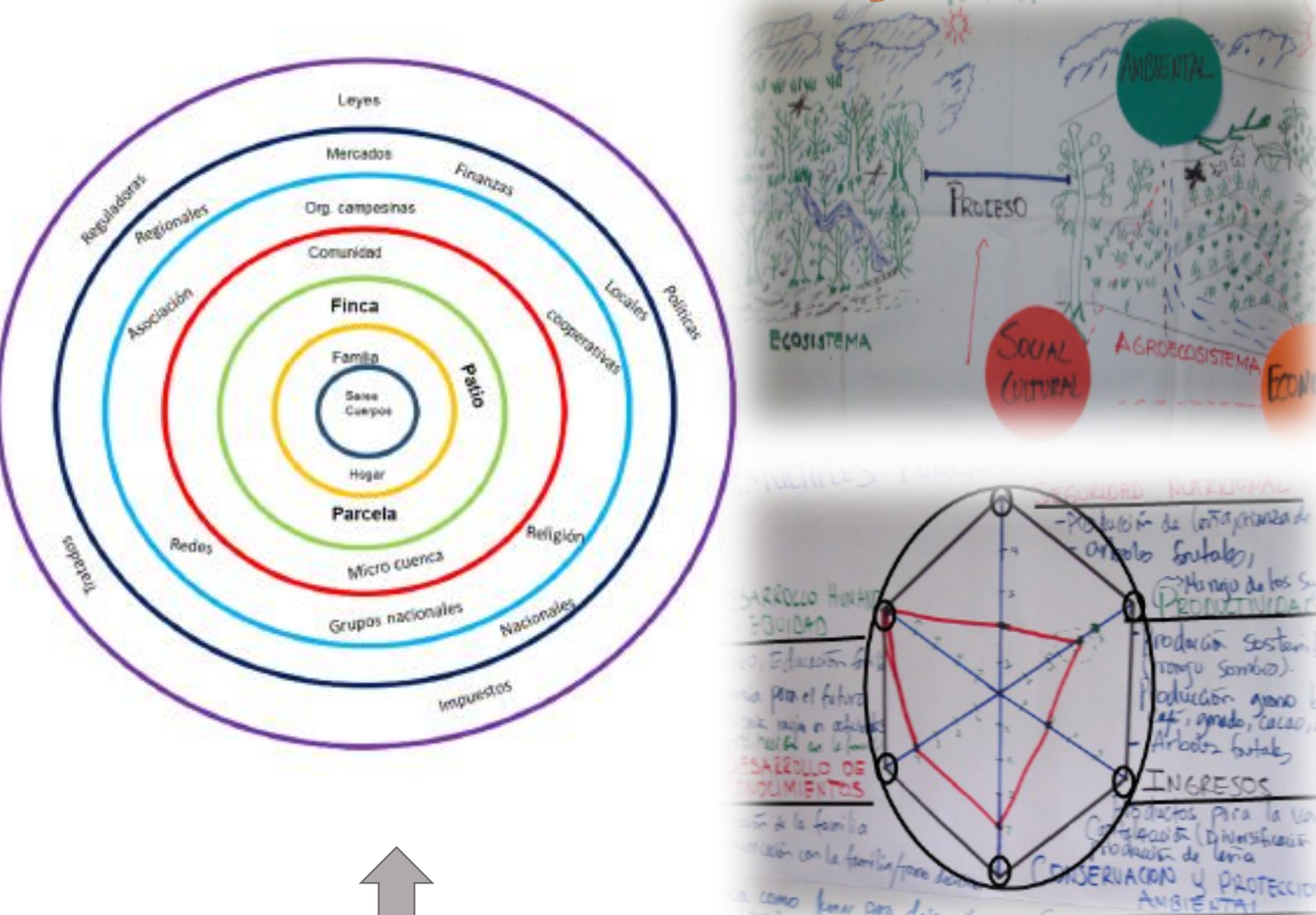


Situation analysis



- Outputs in the form of maps to promote multiple factor analysis.
- Stakeholder mapping and profiling of the innovation agenda of key field site actors.
- Identification of key drivers affecting viability of smallholder farms and rural communities.
- R4D platform Northern Nicaragua Action Site reviewed secondary data and stakeholder linkages to propose field sites for three land use systems – coffee, cocoa and livestock/food crops.

Territorial analysis and formation of learning alliances



- Based on mapping, male and female representatives from farmers groups, commercial cooperatives, NGOs, and research institutes joined in a workshop series to analyze their personal and organizational experience and cross reference with secondary data .
- Integrated systems perspective used in workshops to guide analysis from field and farm agroecosystem, family enterprise, and the role of women and youth and scales of territorial ecosystem services to value chains and policy.
- Emerging entry points used to define the first round of Platform Research Projects (PRP) to address technological, economic, and social aspects of integrated systems intensification.
- Joint workshop conducted with the 3 field site alliances to process results of full territorial analysis and propose second round of PRPs.
- Alliances moving to innovation perspective in continuous process facilitated by further understanding of innovation capacity through expanded PRPs/new proposals and collaborative learning about integrated systems.

Platform Research Projects

- Knowledge development and application.
- Eliminating the gap between developers, users of tools, and those that apply knowledge.
- Improving the relevance of research results.
- Building capacity of alliance members.
- Engage alliance members and institutions in co-learning.
- Creating synergies through collaboration and coordination of actions.

First Generation Projects



Integrated Toolbox for Observation and Decision Making in Smallholder Farms

- Three territories and 18 organizations involved.
- Test the viability of developing and implementing a system for monitoring and improving the management of smallholder farms with diverse integrated activities.
- Improve understanding of potential impact of different management decisions on key production system properties.



Evolution of Soil Fertility under Different Management Systems

- Analyze nutrient flows and balances in different production systems.
- Focuses on soil fertility and organic inputs to identify potential restoration measures.



Participatory Development of Common Certification Codes and Practices for Small Coffee Farms

- Developing common certification codes based on norms of current private certifications to face challenge of multiple certifications.
- Train local youth to manage the common certification codes and practices.



Public policies and Rural Women's Agency for Integral and Equitable Territorial Development

- To understand and produce new insights on how public policies impact rural women's agency to create a level playing field for comprehensive and equitable territorial development.

Proposed Expansion Components and New Projects

Local Observatories and Foresight Analysis with Local Actors

- Building observatories, with local actors by gathering and storing data and information.
- Developing algorithms to carry out Foresight analysis using multiple variables.
- Supporting effective and precise decision-making through foresight analysis.

Strengthening Collective Learning and Innovation Capacity

- Tools for strengthening learning perspective to innovation among platform members and the links from platform to broader territory.
- Review of PRP results to address expanded learning on systemness.
- Foresight tools to strategize key issues for innovation capacity towards pro-equity, pro-natural resources, and smallholder agriculture viability .

Value Chains and Novel Products to Increase Rural Woman's Income

- Use history and foresight to identify potential novel products and value chains.
- Develop business plans to put into practice the novel options
- Implement and evaluate potential options to increase income of rural women.

Harnessing patterns, drivers and impacts of the use of agrobiodiversity use for more resilient rural livelihoods.

- Improved understanding of factors influencing access to and use of agrobiodiversity.
- Clarify role of seeds and local markets in increased ABD use.
- Identify system interventions to improve rural income and dietary diversity through improved agrobiodiversity use.

Supporting Research Activities



Agrobiodiversity and Dietary Diversity

- Captured systematic view of agricultural biodiversity in the three territories of the Northern Nicaragua Action Site using four Cell Focus Group Methodology (Bellon & Raneri).
- Data collected on all species that are locally produced, sold, purchased, and consumed.
- Includes all cultivated and collected/wild species.
- Entry points for strategy on diversification, dietary diversity and ecosystem services including platform proposal on agrobiodiversity and livelihoods.

Scaling out of Agroecology (WUR, CIAT)

- Develop incentive mechanisms for agroecological agriculture in the Nicanorte Action Site.

Foresight analysis (CIMMYT, CIAT)

Big data analysis of trends and patterns for improved decision making and identification of systems interventions.

Grey literature search in Digital Libraries

- Build digital libraries on themes identified by the partner organizations.
- Improve skills to use of the digital libraries for mobilizing new knowledge.
- Foster more effective analysis and debates to help local actors to take better decisions.

Management of water resources (FONTAGRO)

- Use models for scenarios and role playing with climate change scenarios to address complex issues surrounding use of water resources from perspectives of different stakeholders in rural banana producing communities.
- Work at integrated scales from plot and farm to territory and political context.
- Develop action plan for stakeholder and innovation platform.

Opportunities for improving market access and commercialization in remote communities

- Improve understanding of how producers currently link to local and globalized markets and manage their risks while engaging with diverse market channels.

Setting up meteorological network for early alert system

- A network of collaborators and an array of automated meteorological stations in the territories.
- Realtime climate data available to a wide audience via internet to manage risks.