Perception of changes in agroecological practices of dairy farms by smallholders in Mexico

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Introduction

- The TAPE (Tool for Agroecology Performance Evaluation) is a novel tool developed by FAO to collect data on how the 10 Elements of Agroecology can contribute to sustainable food and agricultural systems.
- Its 3rd step involves a participatory analysis of survey results with participant farmers.
- Objective: To assess the perception of participants farmers regarding the likelihood of change in agroecological practices and to determine key actors responsible for these changes.
- A 2-hour workshop was conducted in Aculco, Mexico (n=12 participants).
- Using a Likert-scale from -2 (Very unlikely) to 2 (Very likely), farmers rated their likelihood of changing practices related to the Elements of Agroecology.
- To identify key actors responsible for these changes, participant farmers were tasked with allocating 10 points among 5 options: individual, community, or government at the municipal, regional, or central level.
- The median and interquartile range are used as a measure of central tendency.

Materials & Methods

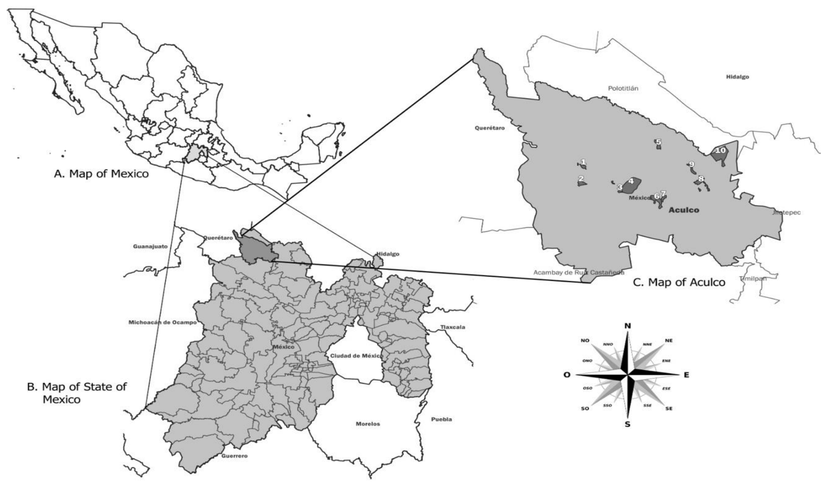

Figure 1. Maps of Mexico (1), the State of Mexico (2), and the Municipality of Aculco (3).

Results: Participant's perceptions

Table 1. Likelihood of change in agroecological practices

Elements of Agroecology	México	
	Median	IQR
Diversity	1.0	1.5
Synergies	0.5	1.0
Efficiency	1.0	1.0
Recycling	2.0	1.0
Resilience	1.0	1.0
Culture & food traditions	1.0	2.0
Co-creation & sharing of knowledge	1.0	1.0
Human & social values	1.0	1.0
Circular & solidarity economy	1.0	1.0
Responsible governance	1.0	0.0

IQR: Interquartile range

Results: Participant's perceptions

Table 2. Key actors responsible for changes in agroecological changes

Elements of Agroecology	Responsible	México	
		Median	IQR
Recycling	Individual	5.0	5.0
	Community	0.0	3.0
	Municipal gov.	0.0	2.0
	Regional gov.	1.0[b]	2.0
	Central gov.	0.0	0.0
Resilience	Individual	4.0	6.0
	Community	2.0[a]	4.0
	Municipal gov.	1.0[a]	2.0
	Regional gov.	2.0[b]	5.0
	Central gov.	0.0	0.0
Culture & food traditions	Individual	8.0	4.0
	Community	2.5[a]	3.0
	Municipal gov.	0.0	1.0
	Regional gov.	0.0	1.0
	Central gov.	0.0	0.0
Co-creation & sharing of knowledge	Individual	4.4	5.0
	Community	2.5[a]	4.0
	Municipal gov.	0.0	4.0
	Regional gov.	2.6	2.0
	Central gov.	0.0	3.0

Conclusions & Implications

- Farmers demonstrated a willingness to independently implement agroecological practices on their farms, but in some cases, highlighted the need for community (México).
- In evaluating the workshop, farmers showed a high degree of interest in learning more about agroecological practices.
- This study provides a case study on giving smallholder farming communities a voice to chart their own future.