## II.5.4 Organic farmers perception about Environmental Sustainability

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Agroecology is an integrated study of the ecology of food system production, encompassing ecological, economic, social, cultural, political and ethical dimensions, aiming to promote the transition of conventional systems to sustainable agriculture. In this sense, there is an effort to construct indicators through participative methodologies to evaluate and document the efficiency of the agroecological practices and its progress. The present work has the objective of analyzing the perception of two organic farmers that are in different stages of agroecological transition, about indicators of environmental sustainability and its validation at the agroecosystem assessment. Forty indicators were selected participatively, considering biodiversity, water and land use as themes. These indicators were evaluated by the researchers through interviews and periodical sampling at the field, and the analysis was made using radar graphics. Thereafter, the farmers also analyzed these indicators, drawing their own graphs of sustainability according to their knowledge and perception. The different views between farmers and researchers were discussed, representing less than 50% of all considered indicators at both farms. We concluded that farmers' point of view is really very important for holistic appraisal of an agroecosystem, since the researchers' observations at the field are restricted by time while the farmers' ones are constant, allowing them to be more accurate at noticing the ecological interactions in the system and the possible cause-consequence relations. In this work, both producers were able to recognize, at different levels, the essential role of biodiversity for agriculture. Agroecological principles are present in the two farms guiding the choices for adequate techniques and management, optimizing the use of the available system resources and reducing the dependency of external inputs, indicating their transition trough ecology-based agricultures.