



RCE PUERTO RICO

RCES IN GREATER BURLINGTON AND PUERTO RICO COLLABORATE ON SUSTAINABLE FOOD SYSTEMS RESEARCH PROJECT

What bolsters the resilience of smaller farms to sustain themselves during times of economic, geo-climatic and socio-political unrest? This question is at the heart of a new collaborative study currently being undertaken by members of RCE Greater Burlington and RCE Puerto Rico that focuses on identifying essential elements of sustainable food systems. The members are conducting research in the dual geographies of Vermont and Puerto Rico and examining how humans interact with each other and integrate with the non-human world in the production and distribution of food. Building on the UN's Sustainable Development Goals and Principles of Agroecology as organizing frameworks, they are implementing an approach that involves conducting background research on metrics, indicators and data integration tools of agricultural sustainability on small farms, and engaging local growers to inquire about the key practices involved with cultivating healthy food systems.

Why do some small farms grow while in direct competition with lower priced commodity markets? What bolsters their resilience to sustain themselves and thrive? Small and medium- sized farms often employ innovative and adaptive strategies for building economic, social, and ecological resilience. Many diversified farming practices also align with agroecological principles aimed at enhancing social and political integrity of food systems. Considering that food systems are multi-faceted and span diverse geographic, cultural, and socio-political scales, there is a need for cross-site analysis of sustainability metrics, measurement techniques and data analysis tools that likewise integrate across boundaries.

This project, funded by the UVM Center for Food Systems Research, aims to illuminate some of these non-traditional elements of success and well-being in a way that can be quantified. The members are investigating the role of small and medium farms in promoting healthy social-agricultural systems in Vermont and Puerto Rico as manifested by a plurality of agricultural approaches. They believe that sustainability reflects the quality of relationships within systems and their component networks. To that end, their focus is on understanding the role of relationships in food systems, examining how humans interact with each other and integrate with the non-human world in the production and distribution of food. Drawing from existing frameworks and employing a mixed methods approach integrating academic research with the lived experience of farmers, the project aims to achieve the following objectives:

- Summarize knowledge of assessments quantifying human and ecological health in food systems through a limited review of academic literature showcasing data integration methods for assessing sustainability across disciplinary boundaries.
- Employ the principles of agroecology to identify and develop key metrics associated with food system health and resilience on a diversity of small-medium farms in Puerto Rico and Vermont.
- Document the synergies that arise from bringing together diverse geographies and cultures in collaborative problem-solving; and
- Draw on and disseminate sustainable agriculture innovation being generated through the Global RCE Network.

The RCEs in Vermont and Puerto Rico are closely aligned in this pursuit of knowledge about healthy, resilient food systems. Both are focused on promoting sustainable social-ecological systems at the watershed scale, where local food production and community vitality are valued alongside the restoration of water quality, biodiversity, and soil productivity. A strong network has developed between Vermont and Puerto Rico over the past decade, with collaborative projects focused on forestry, spatial technologies, post-hurricane restoration, and place-based education. This history, combined with the recent acknowledgment of Puerto Rico as an RCE, sets the stage for this collaborative endeavor investigating the sustainability of food systems. It is anticipated that the outcomes of this work will help improve understanding of sustainability outcomes at the intersection of human and ecological health.

This, in turn, can inform the planning and development of future farms and food systems to align with the Sustainable Development Goals.