

Inter-institutional Network for Food and Agricultural Sustainability (INFAS)

Member Profile: Tom Tomich, Agricultural Sustainability Institute at UC Davis

Background



Tom Tomich is the Director of the Agricultural Sustainability Institute (ASI) at the University of California, Davis where he is also a Professor of Environmental Science & Policy. He holds the W.K. Kellogg Endowed Chair in Sustainable Food Systems, helped launch the Sustainable Agriculture and Food Systems (SA&FS) major in 2011, and serves a state-wide role as Director of the University of California Sustainable Agriculture Research and Education Program (SAREP)¹.

Connections to INFAS

As a founding member of INFAS Tom collaborated with other members to secure funding for an INFAS Coordinator to provide dedicated support and expand the network's impact. UC Davis serves as the INFAS host and Tom plays a key role in the day-to-day mentoring of the Coordinator who enables and implements INFAS activities. The values of INFAS and its commitment to increasing sustainability and equity within the food system is reflected within Tom's work, including classes he teaches for the SA&FS major, and within ASI's programs and activities. Tom participated in a yearlong INFAS Design process to reassess priorities for collaborative action; major outcomes were the formalization of INFAS's commitment to challenging structural racism through an INFAS statement on equity in the food system², and a commitment to prioritize actions that engage INFAS members in challenging racism and inequities within sustainable agriculture and food systems. Tom strives to implement these commitments within ASI, its external advisory board, and through the courses that he teaches. He supports and promotes a social justice and racial equity frame and, inspired by his involvement in the INFAS Design process, encouraged ASI staff members to develop an ASI Social Equity Committee (SEC) in 2012. The SEC regularly engages in social justice issues and discussions, enables diverse perspectives, and strives to implement positive change within ASI and in its external-facing activities. Another outcome of Tom's work with INFAS, and its centering of challenging structural racism, is ASI's prioritization of a social justice background in recruitment for new staff members. His involvement with developing INFAS's statement on equity in the food system inspired him to apply those commitments to ASI, which has resulted in sustained staff dialog and new hires that include people that add an important and holistic social justice perspective to food systems and agricultural work.

Value of INFAS

Tom has found INFAS to be a valuable and effective collaborative mechanism to share stories and wisdom with others in institutions located across the country and that are involved in sustainable food systems and agriculture scholarship. It has also been valuable to him on a personal level as many INFAS members are both colleagues and friends that share a passion for sustainability in agriculture and food systems, a space that, in academia, often prioritizes a 'productionist' mindset over sustainability of the environment or society. Tom finds value in working within a network like INFAS because it has helped him to get beyond "the tension between having humility to hear and listen, but also to do something". He finds that collaborating with various INFAS members has enabled him to become more aware of the privileges and associated responsibilities that come with having a position within a large public land-grant university. Importantly, being a part of the network has given him new insights into how, as educators, researchers, and extension coordinators, INFAS members can (and have a responsibility to) address social inequities within the food and agricultural systems, and to strive to change the dominant discourse to one that centers sustainability of people as well as the environment and economic systems.

Local Work or Project

A number of projects at ASI have both a social justice and an extension component in order to address structural racism within the food system. While ASI focuses primarily on California, Tom works on

¹ <http://asi.ucdavis.edu/people/Tomich%2C%20Director>

² <http://asi.ucdavis.edu/networks/infas/about/infas-statement-on-equity-in-the-food-system-1>

several initiatives at the national and international levels, including as a member of organizations and networks that are working to reshape food and agricultural policies.



ASI's California Nitrogen Assessment (CNA)³, was a groundbreaking 7-year research initiative that was completed in 2016 after undergoing rigorous scientific and stakeholder review. The project's ambitious objective was to look comprehensively at all nitrogen flows in California- not just those associated with agriculture- to determine where the nitrogen comes from, where it goes, and the impacts on ecosystem services and human health and wellbeing. The CNA also provides a model for application of integrated ecosystem assessment methods at regional and state levels. The multi-year research project revealed that California's main driver of nitrogen is agriculture due to its associated manure, fertilizer, and nitrogen fixing crops. As a result of this project ASI is able to bring scientific evidence to politically controversial questions about the main drivers of nitrogen and its effects, and to suggest areas for intervention and mitigation. The report concludes with an overview of available policy instruments for pollution control, which may underpin integrated practice and policy solutions, and a methodology for assessing candidate policies for controlling nitrogen emissions from agricultural sources in California. In addition to the environmental impacts of nitrogen flow, the assessment addresses environmental injustices; it revealed that communities that have the most exposure to nitrogen in California agriculture are Latino communities; this knowledge can inform future policies that will remedy these injustices, such as California Senate Bill 623, the Safe and Affordable Drinking Water Fund. If signed into law, SB 623 would establish new funding to construct, operate and maintain water treatment plants for low-income residents, many of whom live in California's central valley in areas contaminated with agricultural pesticides and other toxins⁴.

Related to the CNA, Tom and ASI colleagues have launched an extension-oriented Solution Center for Nutrient Management⁵. The goal of the Solution Center is to make available the scientific information from sources, including CNA, to growers and agricultural professionals. The Solution Center uses web platforms, social networks, and experiential programs to provide an information resource on nutrient management and to provide opportunities for engagement with researchers and farmers.

A new ASI program is Food System Informatics (FSI)⁶, an NSF and EPA-supported initiative that builds on the five year Sustainable Sourcing of Raw Materials (SSRM) project that was funded through a major gift from Mars Incorporated⁷. SSRM produced a global food system sustainability benchmarking study, which provided a backbone for defining and measuring food system sustainability and a comprehensive definition of sustainability through the lens of global commodity sourcing, synthesized from three perspectives: major international sustainability initiatives, global food manufacturers and business, and grassroots/livelihoods perspectives⁸. SSRM included standardization and cross-definition of both the issues related to sustainability, and the indicators that can be used to measure them, evaluated through two distinct but related frameworks: impact (how agricultural supply chains affect the world around them) and vulnerability (how the world affects the sustainability of supply chains and/or the food system). FSI is a collaboration between UC Davis and the Ohio State University, including INFAS member Casey Hoy and his colleagues, that will advance the work of SSRM through enhancing the initial information platform to focus on food system sustainability ontology and via integrating new sustainability issues, indicators, and other data types that will be identified via stakeholder discussions.

³ The California Nitrogen Assessment: Challenges and Solutions for People, Agriculture, and the Environment.

<https://www.ucpress.edu/book.php?isbn=9780520287129>

⁴ <https://www.newsdeeply.com/water/articles/2017/07/27/unlikely-allies-push-bill-to-solve-california-drinking-water-crisis>

⁵ <http://asi.ucdavis.edu/programs/sarep/research-initiatives/are/nutrient-mgmt/solution>

⁶ <http://asi.ucdavis.edu/programs/sustainable-sourcing>

⁷ Sustainable Sourcing of Global Agricultural Raw Materials: Assessing Gaps in Key Impact and Vulnerability Issues and Indicators.

<https://www.ncbi.nlm.nih.gov/pubmed/26065899>

⁸ Indicators of global sustainable sourcing as a set covering problem: an integrated approach to sustainability.

<http://onlinelibrary.wiley.com/doi/10.1890/EHS14-0008.1/abstract>