

AUTHORS

MICHELA GIOVANNINI

Department of Sociology and Social Research,
University of Trento (Italy)
michela.giovannini@unitn.it

FRANCESCA FORNO

Department of Sociology and Social Research,
University of Trento (Italy)
francesca.forno@unitn.it

RESEARCH PROCEEDING

Doing Transdisciplinary Action Research: A Critical Assessment of an Italian Lab-Like Sustainable Food Initiative

ABSTRACT

The food system nowadays has proven to be unsustainable from the ecological and social points of view and the need of supporting food security and sustainability through local, short-supply chain food systems is manifest. Against this background, several municipalities all over the world have started to establish multi-stakeholder collaborative roundtables to sustain participatory mechanisms directed to design new sustainable urban food strategies. Their main objective is to make Civic Food Networks (such as farmers' markets, solidarity purchasing groups, community-supported agriculture, local physical and online food hubs, box schemes) accessible to larger sectors of the population. In this contribution, we discuss preliminary research results on Nutrire Trento ("Feeding Trento"), a local sustainable food initiative, similar to a food council, through a living lab approach inscribed in a Transdisciplinary Action Research methodology, in order to analyse its potentialities as well as its critical aspects.

KEY-WORDS

TRANSDISCIPLINARY ACTION RESEARCH, CIVIC FOOD NETWORKS, ALTERNATIVE FOOD NETWORKS, FOOD POLICY, LIVING LABS

1. Introduction

The need to develop sustainable forms of food production, distribution and consumption is at the heart of the debate on the ecological transition (Sage, 2011; Campbell et al., 2017). In recent years, the international community has gradually recognized the unsustainability of our current food system, which has been estimated to contribute for approximately 21-37% of total greenhouse gas emissions (IPCC, 2019). In addition to the alarming environmental impacts, equally problematic are the social issues, with two billion people suffering from obesity and related diseases, while 800 million people are still undernourished. Figures that appear even more staggering when considering that every year one-third of the food produced—about 1.3 billion tons—is wasted (Gustavsson et al., 2011). Moreover, our contemporary way of producing, distributing and consuming food is not only environmentally and socially unsustainable, but also increasingly unstable and uncertain at the global level (Marsden and Morley, 2014). This became even more evident with the COVID-19 pandemic and the conflict in Ukraine, events that had catastrophic effects on food supply across the world. To cope with this situation, voices claiming the importance of supporting food security and sustainability through sustainable local and circular food systems have multiplied and increased (SAPEA, 2020).

As highlighted, this kind of claims appear in many ways in continuity with spontaneous grassroots responses that, especially since the 1990s, have begun to take shape and spread within society and local communities (Forno and Maurano, 2016; Mataracena, 2016). The spread of farmers' markets, solidarity purchasing groups, community-supported agriculture (CSA) initiatives, local physical and online food hubs, among others, not only have created marketing spaces for small local producers, otherwise destined to marginalization in a food system that is highly competitive and based on the lowest price, but have also allowed to imagine different forms of supply, making them viable. This has been made possible by renewing traditional modes of food production and consumption that have also had the important role of reconnecting people with the land, its rhythms and its biodiversity (Sage, 2003). The main strategies of these networks are to shorten supply chains, promote small-scale agriculture, consume quality seasonal food at fair prices, and build relationships of mutual support based on trust between producers and consumers (Grasseni, 2013; Forno and Graziano, 2014). However, despite the hopes that have surrounded these initiatives, Civic Food Networks (CFNs) have shown a tendency to remain fragmented in niche markets.

In order to favour the convergence of different local food initiatives in the attempt to increase their critical mass and capacity to reach a higher number of consumers (Forno and Maurano, 2016; Mataracena, 2016), several municipalities have established multi-stakeholder collaborative platforms with the aim of implementing participatory processes to design new sustainable urban food strategies (Davies and Evans, 2019). As stated by Moragues-Faus and Morgan, urban food strategies are processes through which “a city envisions change in its food system and identifies ways to achieve this change” (2015: 6). Cities are today not only the places where most people are concentrated. Being the level closest to the people, decisions made at the municipal level clearly

have a fundamental impact on citizens' lifestyles and food choices. The role of food policies appears indeed relevant to sustain CFNs, favour their diffusion and replication, and make them accessible also to people with limited economic and knowledge resources.

Against this background, the research project FOOdIVERSE¹ aims at investigating possible roads to foster change in the food system, by focusing on how diversity in diets, novel food supply chains and food governance contribute to more organic and sustainable food systems that can lead to a higher level of food security. The present contribution analyses the multi-stakeholder collaborative roundtable established with the project "Nutrire Trento" ("Feeding Trento")² from a Transdisciplinary Research Approach (TAR) while discussing its trajectory since its establishment in 2017 thanks to the collaboration between the university and the municipality of the city of Trento, Italy. Being de facto a lab-like initiative aiming to improve local food provisioning in light of the current global crisis, the working table was selected as one of the living labs inscribed in the framework of the FOOdIVERSE project. We highlight some preliminary critical issues related to the living lab analysed, which is still ongoing and deserves further analysis from our side.

2. Living labs as spaces for Transdisciplinary Action Research

Socio-ecological dilemmas, such as climate change and food security, are often labelled as "wicked problems" because they defy resolution through the lens of a single discipline (Breeman, Dijkman, and Termeer, 2015). Given their complex and interconnected nature, these challenges require advanced strategic perspectives and methodologies from diverse academic and non-academic domains, while engaging citizens actively. It is within this context that the Transdisciplinary Action Research approach is gaining growing attention as a means to address these issues comprehensively. TAR is indeed a methodology that has gained attention in the last decade as a way of addressing complex societal issues not only by analysing them but also by having a practical impact and generating tentative solutions thanks to a transdisciplinary approach and a participatory character that involves academic and non-academic subjects. In this sense, we observe that TAR combines elements of participatory action research, with participatory democracy processes and participant observation. Indeed, participatory action research is defined as a "democratic and participative orientation to knowledge creation. It brings together action and reflection, theory and practice, in the pursuit of practical solutions to issues of pressing concern" (Bradbury, 2015: 1, cited by Lam et al. 2021). It has an exploratory nature and actively involves different stakeholders concerned in a societal issue, with the aim of acting significantly "from within" on the reality under investigation. Participatory

¹ The FOOdIVERSE project, Diversifying sustainable and organic food systems, is funded under the ERA-net Cofund Scheme (H2020) SUSFOOD2/Core Organic and MIPAAF, and provides multi-level perspectives on transforming local food systems across Europe (Germany, Italy, Norway, Poland, UK). For further information see: <https://foodiverse.eu/>

² See www.nutritrento.it for further information.

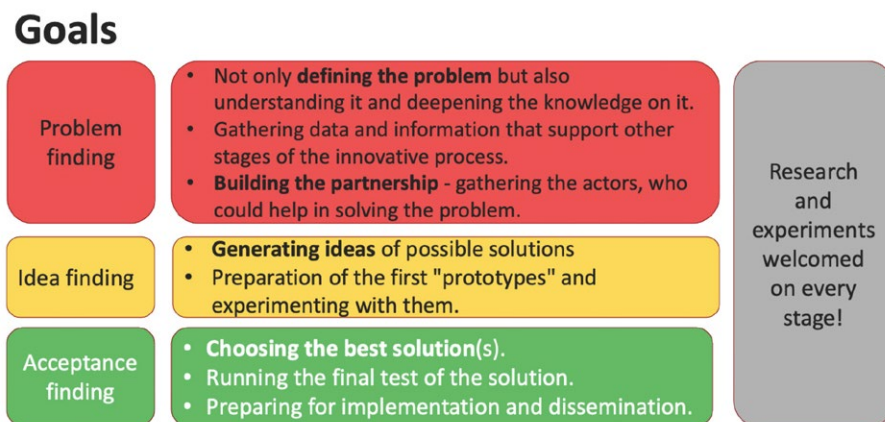
democracy is a theory and a type of government where people concerned are directly involved in the decision-making process, where all interests and points of view are taken into consideration and elaborated to get to a common decision. Participant observation is a methodological approach, typical of ethnography, where the researcher spends periods of observation and participation in the activities of the group under investigation. TAR adds to these methodological and political approaches the transdisciplinarity, intended not only as diversity in the scientific disciplines employed in the analysis, but also as diversity in academic and non-academic actors involved in the analysis directed to collective action and decision-making processes (Lam et al., 2021).

In other words, TAR has the potential for overcoming lock-in situations, for going beyond the paradox of collective action, favouring cooperation and mediation of conflicting positions. Against this background, living labs are integrated socio-economic tools that include TAR, co-creation and experimentation of potential solutions to sustainability challenges (Scholl et al., 2018). Living labs are then embedded in TAR, being both a space and a tool for multi-stakeholder experimentation and decision-making or, as McCormick Hartmann (2017: 4, cited by Laborgne et al., 2021) put it: “Urban Living Labs can be considered both as an arena (geographically or institutionally bounded spaces), and as an approach for intentional collaborative experimentation of researchers, citizens, companies and local governments.”

Having said that, in looking for solutions to the challenge of the diversification of the food system, and in light of producing a “diversification roadmap” by the end of the project, a working package of FOOdIVERSE is dedicated to the implementation of a living lab for each of the five countries involved. According to the European Commission, a living lab is a “user-driven open innovation ecosystem based on business-citizens-government partnership which enables users to take active part in the research, development and innovation process” (2009: 7). Differently from conventional laboratory environments, living labs are based in real world settings, following real life circumstances. The existing literature, which has increased significantly since 2015, has so far highlighted several characteristics of living labs, even though a certain lack of clarity on their essence still remains (Hossain, Leminen and Westerlund, 2019). The main attributes of living labs are essentially the presence of multiple stakeholders and the fact that they establish public-private partnerships, which can assume different shapes. Users are depicted as co-creators, being the crucial activity of living labs co-creation that can lead to innovative outcomes (Følstad, 2008). The living lab approach is characterized by flexibility and adaptability, it is an arena for experimentation and it is increasingly applied in diverse areas, from information and communication technology (ICT), to other business products, to societal challenges such as sustainability transitions (von Wirth et al., 2019), like in the case, particularly focused on diversification for the sustainability of the food system, that is here analysed. Figure 1 describes the living lab phases with a specific stage dedicated to problem finding, which implies the identification of the problem but also the in-depth analysis of it that benefits from transdisciplinarity. This is complemented by the idea finding stage, where the identification of different solutions is favoured by the multi-stakeholder character of the methodology. Indeed, local actors involved may contribute significantly to all phases, given their

in-depth knowledge of the context, even though problems of power asymmetry may arise and are often neglected (Strumińska-Kutra and Scholl, 2022). The acceptance finding phase is explicitly action-oriented, where the best solutions are chosen, and possibly tested and implemented.

Figure 1. Living lab methodology (project FOOdIVERSE)



3. Nutrire Trento as a living lab

The Autonomous Province of Trento is an Italian Alpine Region located in Northeastern Italy, made up of valleys and high mountains with high percentages of steep slopes. These topographical characteristics have always made cultivation activities difficult, and terraces were created to overcome this problem. About 70% of the territory is covered by silvopastoral-agricultural areas. The agricultural landscape is characterized by two main monocultures: apple orchards and vineyards. Fruit growing is the main business, with 33% of the GSP of the agricultural sector, followed by zootechnics with 17%, and viticulture with 15%.

In this context, Nutrire Trento was created in 2017 by the municipality and the university of Trento with three main objectives: (i) promoting sustainable food consumption, (ii) promoting awareness on sustainable food production, (iii) shortening the food chain. It involves farmers, consumers, various civil society groups, researchers and local administrators around the goal of improving the quality of food that supplies the city and providing fair remuneration in the local food chain. This working table is similar to a food council, highlighting the importance of supporting and co-producing dedicated policy measures. Nutrire Trento organized food box deliveries during the 2020 lockdown, facilitated the creation of a CSA-Community Supported Agriculture (a CFN), and runs a blog where it shares information about actors, events and insights on several topics to promote awareness around the topic of food sustainability and ethical consumption. It also maps

farmers, local and organic food markets, specialized stores, consumer groups and urban and social gardens in the Trento area (Forno and Andreola, forthcoming).

Nutrire Trento is thus a network of networks, similar to a food council, it is informal and it does not have a physical headquarters. Monthly or bi-monthly meetings are held at the municipality, at the university, or online. The network completed several projects, it received 20,000 EUR as seed money in the first four years of operation, as a joint contribution from the university and the municipality. Other resources derived indirectly from different European projects on circular economy and sustainability. Nutrire Trento influenced the agenda setting of the municipality: being included in the electoral agenda of the mayor, who was elected in May 2020. The coordinator of Nutrire Trento (municipality) is constantly in contact with Milan Urban Food Policy Pact and with food policies of other Italian cities, collaborating and exchanging experiences.

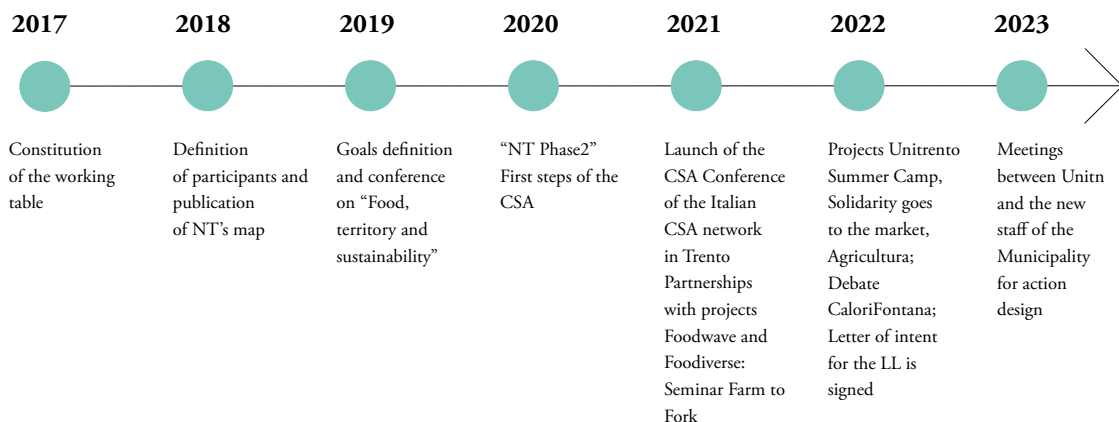
Nutrire Trento was selected as living lab after having considered and analysed two other cases in detail, since it was somehow natural to choose this experience, since some of the researchers involved participated in its creation and implementation, following its activities since the beginning. The table was chosen since it appears as an open innovation ecosystem given its plural composition, its fertile ground to build synergies between different actors and its common goal of finding local solutions to favour food diversification processes (European Commission definition above). The collaboration between FOODIVERSE and Nutrire Trento was formalized in May 2022, designating that Nutrire Trento was officially the living lab in the project framework. More specifically, the agreement established: (i) joint actions to promote citizenship participation, environmental and social sustainability; (ii) research and knowledge transfer, human resources, training and cultural offer, communication.

Nutrire Trento operates locally, intending the local dimension as the Trento municipality, although producers come from the entire Trentino province. It has 120 members (taken from the maps) and 107 members in the mailing list, although participation in the meetings is variable (approximately 20-30 people per meeting in the last year). Members simply join the map included on the website and the mailing list. They are mainly academics, local administration members, short supply chain networks, farmers, consumer groups, representatives of local associations. Among them, consumers belong to the middle class, while producers are more differentiated, mainly professionals and public servants. Decision making is implemented by a deliberative approach.

During the Nutrire Trento meetings, it soon became clear that the main concern of those involved in the project was finding ways to involve larger and more diversified sectors of society, improving access to “good food” beyond the middle classes, therefore to low-income people, migrants, and younger generations. Another crucial aspect is the promotion of sustainable diets (that include social, environmental, and political concerns) through the promotion of events and projects concerning CFNs as a tool of enhancing the access to local and organic food, giving value to three main issues: (i) health; (ii) fair price; (iii) environmental protection.

Since November 2022 (and until June 2023) there have been no meetings of Nutrire Trento, due to a transition period on the side of the municipality: the former person in charge of leading the meetings has been moved to a different position and a new person has assumed her role. In spite of this, several activities were implemented by some of the participants in the table. The main novelty implemented in this period, is the revitalization of the CSA through increased communication and renovation of producers.

Figure 2. Nutrire Trento timeline



4. Some preliminary conclusions

As highlighted by the timeline, Nutrire Trento has given birth to several initiatives, projects, and synergies among different stakeholders. This started to happen since the foundation of the table in 2017, well before the formal establishment of Nutrire Trento as a living lab within the framework of the FOOdIVERSE project. Therefore, it is possible to say that the living lab is merely a new label for Nutrire Trento's actions (hence *lab-like*, Scholl et al., 2018). In this sense, the methodological framework presented in Figure 1 was useful in order to look at the living lab from the point of view of researchers committed to facilitate a process that was already ongoing, having an insight from within the network, but at the same time trying to have a broader picture in mind. Accordingly, it allowed to systematize the analysis regarding the problem finding and the data collection, keeping in mind that the partnership and the problem to be addressed were already set by the table itself, while the data collection is still ongoing. Regarding the idea finding phase, possible solutions are in the nature of the discussion generated inside the table, even though the acceptance finding phase has not been reached yet and the capacity of Nutrire Trento of getting to a food policy is still uncertain.

It is crucial to underline that activities and support have been formalized since the formal agreement, in the attempt of making them more structured and of recording and analysing strategies

and synergies inside and outside Nutrire Trento. Since the signature of the letter of intent, and even though meetings are suspended since November 2022, our research team has acted in three different ways: (i) helping in the redaction, organization and support of different projects and events; (ii) carrying on research activities to evaluate the different project impacts (in particular an in-depth analysis of the CSA based on interviews, focus groups and participant observation); (iii) stimulating a series of informed debates.

Following Strumińska-Kutra and Scholl (2022), we highlight how the current impasse experienced by the Nutrire Trento living lab is most probably due to power related issues that stand in tensions among the “extended peer communities” which have different values, priorities, interests and capacity of action, having an impact on the regularity of their presence in the meetings and on the involvement in different activities. This is witnessed, for instance, by the fact that most of the projects are carried out by the academic partners involved and the municipality, while synergies with many of the associations involved remain limited. Moreover, the role/positioning of researchers deals with power asymmetries not only as foreign “experts”, but also for their role of initiators/facilitators of the living lab process.

Most importantly, we observed tensions between the participatory/deliberative character of the table and the institutional environment: the latter is not formally hostile towards dialogue (it is one of the promoters of the table) but lacks capacity in terms of implementing strategies and keeping the dialogue alive. Moreover, we observe a detachment between the deliberative space of the living lab, which made it possible to get the Municipal Council (legislative power) approve crucial deliberations, while the local executive power completely ignored them so far. While a deliberation on local food policy was proposed by three joint commissions and approved by the municipal council in September 2022, benefitting from the work that has been done by Nutrire Trento, the executive did not act accordingly, and the food policy amounted to nothing so far. However, being part of the living lab as researchers and citizens committed to sustainability, allowed us to participate in the dialogue, mobilize different actors and resources, promote concrete actions of education and awareness around food sustainability, and unveil internal and external power dynamics in the attempt of co-constructing local food policies. The experience here analysed allows to highlight the need of approaching TAR and living labs not as a panacea for research and stakeholders’ participation, but as a useful tool that must not be exempt from critical stands. It is in this direction that we intend to move further.

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