

CITY–REGION FOOD SYSTEMS: SCENARIOS TO RE-ESTABLISH URBAN-RURAL LINKS THROUGH SUSTAINABLE FOOD PROVISIONING

OLSSON, E.G.A., BURMAN, A., DYMITROW, M., ARMBRECHT, J., RINALDI, C.,
NILSSON, A., OHLÉN, B., INGELHAG, K. & FERMSKOG, K.

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Background and objective

City–Region Food Systems (CRFS) is a cutting-edge concept and an emerging field of research. As a new analytical lens, it offers an integrated and multi-dimensional perspective on food's origins, how it is grown and the path it follows to our plates and beyond (Blay-Palmer *et al.*, 2015).

Building on this concept, this presentation reflects a prospective research project which seeks to explore opportunities for innovative and sustainable food systems in the Gothenburg region of Sweden, focusing on how rural and urban regions, food production and market can be integrated to promote regional food security. The project intends to: 1) develop scenarios with stakeholders for local food production in the region; 2) analyze the consequences of the scenarios on landscape change and biodiversity; 3) explore socioeconomic consequences for producers and local communities; 4) evaluate the sustainability and feasibility of scenarios with stakeholders.

Five municipalities in Western Sweden (Gothenburg, Kungälv, Lerum, Alingsås and Essunga) will serve as study areas for the project. The selected sites reflect different kinds of potential for local food production and there are significant differences between the municipalities in terms of dissimilar environmental conditions, prerequisites for farming and economic history. Today, many residents commute to Gothenburg as the municipalities offer more affordable housings and attractive livelihoods. Expansion of settlements/housing is ongoing and some occurs on arable land. Food production for local consumption is less significant; while some arables are partly used for grazing of recreational horses, others are unused or left for afforestation.

The project will be developed and implemented in direct cooperation with local regional actors such as Västärvet, Västra Götaland Region, the municipalities and various producer organizations. The project responds to expressed interests and knowledge needs in the region. The results are transferable to other regions.

Theoretical framework

Ongoing urbanization and simultaneous globalization of food products is challenging food and nutrition security for urban and rural areas. Dependence on the global food supply chain also increases vulnerability and implies risks for cities and regions. The most efficient way to address the challenges is by examining the relationship between cities and their surroundings (Dubbeling *et al.*, 2017).

City regions often accommodate complex networks of actors related to food production, processing, distribution, marketing and consumption crucial for developing a *sustainable food system* (FS) (Forster *et al.*, 2015). Sonino (2016) captures this ambition by shortening the FS chain and move food production closer to consumers. The FS concept is transdisciplinary involving many socio-environmental sectors, and the sustainable food provisioning issues are crossing all 17 UN Sustainable Development Goals [SDGs] (United Nations, 2015; Ilieva, 2017). Rinaldi (2017) sees the new rural development paradigm (Van Der Ploeg *et al.*, 2000) as a “*a multi-level, multi-actor and multifaceted process evidencing the global interrelation of agriculture and society*”, while Olsson (2018) proposes the application of urban FS documents as steps in the incumbent sustainability transition (cf. Bennett *et al.*, 2016). Incorporating FS innovations into participatory scenario development opens up possibilities to engage with multiple stakeholders, to explore and analyze alternative futures, to reduce uncertainties by improving social capacity, and to identify resilient policies (Oteros-Rozas *et al.*, 2015).

A science-policy dialogue was recently organized by European Commission on Research and Innovation for Food 2030 (Food-EU 2017). FS innovation and community empowerment was mentioned as one major concern. It was stated that catalyzing positive change in food innovation systems will require integrated approaches to connect multiple actors of value networks and “*new ways of engaging and empowering consumers and primary producers in innovations in food systems are needed*” (Food-EU 2017).

Methods

Participatory scenario methods have shown to be useful tools for joint development of possible futures (Montin *et al.*, 2014; Ryschawy *et al.*, 2014). Elaboration of participative food scenarios involving multiple stakeholders based on local/regional ecosystems and including already ongoing food production activities can reveal overlooked possibilities/obstacles for a regional FS. It also provides an opportunity to stimulate collaboration and facilitate communication between stakeholders and to promote social innovation, e.g. Chiappero-Marinetti *et al.* (2017). Scenarios for metropolitan regions and FSs were developed for some European cities (Zasada *et al.*, 2017). New perspectives were offered metropolitan regions’ potential for strengthening urban self-sufficiency and revealing the spatial consequences of changes within metropolitan FSs. This links well with this project’s aim (scenario building for local FSs is a core activity).

Equally, the proposed project is designed for scenario co-creation with multiple stakeholders for local food production in an urban-rural region and on visualizing the diverse implications of different scenarios (cf. Dymitrow and Stenseke, 2016). Scenarios will be developed by stakeholders in an initial workshop and evaluated for sustainability in a final one by researchers/stakeholders.

Interdisciplinary methods and competences will be applied for this study’s many dimensions and to integrate bottom-up and top-down issues. Project partners represent two universities, two science-policy platforms, Mistra Urban Futures and Urban Rural Gothenburg, and the major regional authority Västra Götalandsregionen (VGR) via its cultural heritage organization Västärvet.

The project is a multidisciplinary effort with researchers from Gothenburg and Chalmers Universities, and Mistra Urban Futures. The methods include ecological-geographical analysis with GIS, economic estimation, ethnographic and participatory methods where actors and researchers construct and evaluate scenarios. A strategy is drawn up to enable results to be further developed by stakeholders after end of this project to ensure continuity.

Tentative research implications

This project explores the possibilities of using urban food strategies as tools for sustainability transitions of societies. It also aims to explore the particular preconditions and possibilities for using an emerging urban food strategy for sustainability transition in Gothenburg.

Elements seen in many urban food system strategies correspond well with the elements in the Transition Movements pathways and include food system impacts on, e.g., life style and consumption, diversified land use, agro-ecological production methods, decreased energy consumption, urban-rural planning, local empowerment, social cohesion, livelihood strategies at the sub-regional scale (Olsson, 2018). This could be accomplished by linking urban-rural regions via policies, planning and reorientation of farm subsidies that reconnects the regions and by a number of opportunities related to food system activities. This includes branding of the ‘local’ for production of different food products and would involve innovations, e.g., from new distribution systems and consumer participation, and stimulate economic growth in the peri-urban and rural regions. Those actions have wider implications for the organization of the society other than food. Thus, food system strategies and plans can be tools in the sustainability transition efforts for obtaining the 2030 sustainable development goals (cf. Olsson, 2018).

In Gothenburg, the current setting is favorable with an array of local conditions that could make the emerging food system plan a useful tool in the current struggle against several challenges threatening urban sustainability. This includes the segregation challenge that is exceptionally important in Gothenburg. The evident engagement and interest from the city of Gothenburg and from several municipalities in local food activities, combined with the Gothenburg region’s dedication to sustainable

development (Nilsson and Ohlén, 2018), give the region unique prerequisites for innovative development of the urban food strategy with large potential for the sustainability transition efforts (cf. Olsson, 2018).

In sum, the premises are that recent urban food strategies and plans with sustainability ambitions are embracing several Sustainable Development Goals in the environmental, social, economic, and equity dimensions. This, in turn, is a characteristic of the Transition Movements pathway, in which the utility of food strategies in the work with sustainability transitions seems inevitable

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EXTENDED ABSTRACT

E. Gunilla Almered Olsson^a
Anders Burman^b
Mirek Dymitrow^{cd}
John Armbrecht^e
Chiara Rinaldi^f
Anders Nilsson^g
Björn Ohlén^h
Karin Ingelhag^h
and Kristina Fermskogⁱ

^a University of Gothenburg, School of Global Studies, Sweden, gunilla.olsson@globalstudies.gu.se

^b University of Gothenburg, School of Global Studies, Sweden, anders.burman@globalstudies.gu.se

^c Chalmers University of Technology, Mistra Urban Futures, Sweden, mirek.dymitrow@chalmers.se

^d University of Gothenburg, Dept of Economy and Society, Sweden, mirek.dymitrow@gu.se

^e University of Gothenburg, Dept of Business Administration, Sweden, john.armbrecht@handels.gu.se

^f University of Gothenburg, Dept of Business Administration, Sweden, chiara.rinaldi@gu.se

^g Västra Götaland Regional Council, Västarvet, Sweden, anders.m.nilsson@vregion.se

^h Västra Götaland Regional Council, Västarvet, Sweden, bjorn.ohlen@vregion.se

^h Business Region Göteborg, Urban Rural Gothenburg, Sweden, karin.ingelhag@businessregion.se

ⁱ City of Gothenburg, Dept of Environment Management, Sweden, kristina.fermskog@miljo.goteborg.se

Corresponding Author

Karin Ingelhag

Norra Hamngatan 14, Box 111 19, SE-404 23, Göteborg, Sweden

karin.ingelhag@businessregion.se

+46 (0)31-367 62 07