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## OWC 2020 Paper Submission - Science Forum

*Topic 3 - Transition towards organic and sustainable food systems*

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### TENSIONS BETWEEN LOCAL AND ORGANIC FOODS AND HOW TO OVERCOME THEM

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**Abstract:** Originally organic production was closely related to locally oriented food systems. However, after its institutionalisation and growth since the 1990's, the organic sector has evolved in different directions. The main part of organic foods consumed in Europe today is processed and retailed through mainstream, industrialised and largely conventional supply chains. In this process, the local links have been lost and, in the Swedish context, organic is sometimes seen in opposition to local food systems. This paper discusses four tensions between local and organic food systems: 1) the fact that there is no unifying definition of local food systems, 2) the mixing up of modes of production and place of production, 3) the many aspects of sustainability making priorities difficult, and 4) local nutrient flows between society and agriculture. We conclude that while some of these tensions are real, some of them can be overcome only by bringing more clarity into the discussion.

**Introduction:** In its original set-up, organic production was very closely related to local nutrient cycling and locally oriented food systems. However, after its institutionalisation and growth since the 1990's, the organic sector has evolved in different directions. The main part of organic foods consumed in Europe today is processed and retailed through the mainstream, industrialised and largely conventional supply chains that dominate the food system. In this process, the local links have been lost. In some contexts – as in the Swedish – organic is rather seen in opposition to local food systems. For example, there is a persistent view among many consumers that transports of foods represent the main environmental loading that should be avoided, and that local foods are preferable to organic for this reason. This paper aims to make some of the tensions between local and organic food systems visible and suggest ways of how these tensions can be overcome.

**Material and methods:** This paper is a synthesis of research on the environmental, social and economic benefits and drawbacks of local and organic food systems with special reference to the Swedish context. We draw on studies, mainly from the Global North, about local and organic production systems from a multitude of angles and disciplines.

While there is a clear definition of organic production through the set of standards and certification schemes available, there is no such definition of local food systems. Thus, it is not always clear what academic authors, consumers, or civil society organisations mean when they refer to local food systems. For the purposes of this paper, we use the broad definition: “local food is food produced, processed and consumed within a defined region”. Using this definition, the scope what a local food system might be, is still very broad.

**Results:** Tension 1: the lacking definition of local food systems

While organic production can be defined – and scrutinized – local food systems cannot unless they are defined in each case. With the definition used in this paper, there are many types of different food systems that can be considered: farmers’ markets, Community Supported Agriculture, selling in regional supermarkets, etc. The potential for food actors to interact is often referred to as the main advantage of local food systems. For many farmers, it makes sense to produce organically *and* sell locally: the more work intensive (and thus pricier) organic production can be explained when meeting consumers (e.g. Björklund et al 2009).

Tension 2: conflation of where (local) and how (organic)

Is a food item local if inputs and animal feeds are imported? In an organic system, there is an aim to use local resources in production – but organic products can be produced with inputs from far-away and found on a global market. In local food systems, food does not travel far after the farm gate – but there is no specification of production methods and thus the environmental effects of production cannot be known. Since 50-80% of environmental effects occur on-farm (Angervall et al 2008) the *how* (organic) is generally more important than the *where* (local). Mixing up place of production and how production is done is called the local trap (Born and Purcell 2006). While the where and the how do not stand in conflict with each other, they need to be kept apart. In addition, there is often an assumption of small scale and artisan food processing in local production that is not necessarily the case.

Tension 3: there is not one aspect of sustainability

In the cases where there is a real sustainability tension between local or organic, the choice depends on what sustainability issues are considered most important. For example, an imported organic apple will have less pesticide residues, while the local apple will have a lower climate impact: 50% of climate impact originates from transporting the apple (Angervall et al 2008). Buying the local apple will support local farmers, while the imported organic apple will stimulate environmentally benign production in general.

Tension 4: organic hampering local nutrient flows

Organic standards require farmers to have a high level of nutrient cycling on-farm, but there are rules hampering the nutrient cycling between farming and society. In the EU, it is not allowed to use human urine or sludge from water treatment plants in organic production. This is a case where the precautionary principle overrides goals to obtain nutrient cycling from society back to agriculture. Local food systems may provide solutions since the geographical distance is an important issue when recycling back nutrients to agriculture.

**Discussion:** While the ideas behind organic fit well with locally oriented food systems, there are a number of tensions between them in the hegemonic food system today. Some tensions are real (e.g. depending on the sustainability aspect in question you make different choices; organic hampering nutrient cycling from society back to agriculture) but in other cases there is no real conflict. Rather, there is a need to make clear what we talk about (i.e. not fall in the local trap) and to be aware of how scale issues influence the sustainability performance of both systems. These tensions – real or perceived – need to be taken into account in the further development of organic agriculture in Sweden.

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