Can local food systems modify the landscape? A case study in the Kromme Rijn region

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Peri-urban regions throughout Europe are facing a myriad of challenges. Besides population pressures inherent to peri-urban areas, these landscapes provide public goods such as space for recreation, climate regulation, and flood protection to both urban and peri-urban dwellers. These public goods are often a by-product of the agricultural production common to peri-urban regions. Peri-urban agriculture is, due to spatial constraints, often small scale and often lacks profitability. Nevertheless, peri-urban agriculture is intensive, meaning that it puts high pressure on soil and environmental quality and regularly falls short in producing the desired public goods. Altogether, peri-urban areas that mix urban functions and agriculture are often in a deadlock of poor landscape quality, poor environmental health, and low agricultural profitability.

Local food and local value chains are considered a potential way to break the deadlock. It adds an attraction to the landscape, can increase profitability, and can be a tool for increasing regional cohesion. That might in turn trigger farmers to adapt to a more multifunctional farming system.

We investigated the potential of local food systems in a peri-urban case study near the city of Utrecht. To quantify the scope from a farmer's perspective, we inventoried current local food initiatives, explored the constraints to agriculture and potential changes through a series of interviews with stakeholders, and mapped the network of farmers. A network analysis provided insight in the decision-making context regarding taking up direct sales or local value chains. In a series of workshops, we discussed future challenges to the region and inventoried potential solutions together with knowledgeable stakeholders. Surveys among people recreating in the area were used to quantify the scope for local food systems from an end user's perspective. Through spatial analysis, we combined the farmer's perspective with the end user's perspective.

Although end users primarily buy local food because of taste, they also aim to support local small-scale landscapes and organic farms by buying local. From the farmer's perspective, local value chains are indeed increasingly taken up as a tool to increase income and stakeholders provided multiple examples of the role of local food in increasing regional cohesion. However, direct sales is only feasible when there is a sufficiently large market, meaning that only farms with easy access from peri-urban areas have sufficient potential. With approximately 20% of the recreationists regularly buying local food and farmers being triggered by interest in local food to change their farming system, targeted actions for strengthening local food chains might have the potential to induce landscape changes in accessible peri-urban areas that will benefit landscape quality and environmental health.