

City-owned farm Huebhof in Zurich. Photo by stadtgmues.ch

In the city of Zurich, Switzerland, policies for agriculture in urban areas have evolved towards fulfilling multiple functions. The production of food is a part, but not the main goal, of a multifunctional approach that reflects the aim of ensuring diverse services for city dwellers. This multifunctional approach fosters biodiversity and provides both an attractive recreational landscape and education opportunities for city residents. The city administration has implemented various support mechanisms to ensure the implementation and maintenance of the multifunctional concept.

Multifunctional land use as overall approach for urban agriculture

As cities grow, politicians and urban planners are increasingly faced with competing claims for urban land use. A concept trying to overcome these competing claims is multifunctional land use, which aims to fulfil different functions within one area. This concept has been recognised by the city of Zurich as a way to ensure green spaces within the city. In Zurich, fostering agriculture is a vehicle for addressing multifunctional land use goals. The city department in charge of green space management has defined diverse goals for its agriculture: (i) design and maintain an attractive cultural landscape with high recreational value, (ii) preserve and promote biodiversity, (iii) produce food, (iv) facilitate

"green knowledge" and opportunities for participation among city residents. These goals are to be realised on 810 ha of agricultural land in the city, which accounts for 10% of the town area. The city of Zurich has 25 farms run full-time or part-time. Ten of these farms, working 500 ha of the total agricultural land, are owned by the city. Nine farms are leased to family farmers, and one is directly managed by the city department in charge of green space management. Furthermore, approximately 5,500 allotment gardens on 135 ha and 20 community gardens, migrant gardens, or hobby animal holdings (sheep, bees) are established on 2.8 ha of city-owned land.

The existing agricultural land is considered to be secure within the current long-term land planning formally outlined in a structure plan. In recent years, the city of Zurich pursued a strategy of condensing settlements by building upwards rather than expanding the built area into the surroundings. Nevertheless, numerous interests exist for land within the city, and the pressure to release valuable green space for construction is increasing. This has resulted in an active land-buying policy by the city department in charge of green space management: they buy land from private or public owners in order to safeguard city green spaces. Politically, the protection of agricultural land is still of high importance among the population. This was revealed in 2012 in a public vote on the maintenance of agricultural land, and justifies the city agricultural land-buying policy. However, as the pressure on agricultural land continues for uses such as housing, sports facilities and leisure parks, many farmers and urban gardeners are anxious about the long-term perspective for their farming and gardening activities.

Multifunctional urban agriculture as a source of conflict

The Zurich city department in charge of green space management has put in place various measures to assure the abovementioned goals. The main pillars are (i) binding requirements for organic farming practices for city-owned farms and urban gardeners (allotment and community gardeners); (ii) support and advice for agro-ecological measures on farms, etc.; (iii) investment funds for infrastructure such as on-farm shops and animal-friendly stable constructions; and (iv) fostering of environmental education activities ("green knowledge") among school children by supporting school excursions to farms. Within these measures, the main focus is on nature conservation in terms of agro-ecological measures (e.g., flower strips in arable land, planting and maintenance of hedges and high-stem fruit trees). In order to obtain direct payments within the Swiss agricultural support scheme, farmers in Switzerland must carry out biodiversity measures on 7% of their utilised agricultural area as well as fulfil other ecological minimum requirements. City policy in Zurich requires that biodiversity measures be implemented on 15% of city-owned agricultural land; in 2014, these reached 30 %. Furthermore, 53 % of all agricultural land in the city (publicly and privately owned) was cultivated organically. This result was achieved due to specific biodiversity and organic farming payments based on national funds as well as advice and city-specific programs such as "10,000 fruit trees for Zurich", under which farmers get trees for free and then cultivate them according to biodiversity quidelines.

Nature conservation, though, often creates conflict for farmers in their decision making, particularly for city farmers who farm on private land. There is a perceived conflict between production of food and carrying out agro-ecological measures. Although implementing such measures has the potential to contribute significantly to farm income, farmers are partly critical as they believe it is at the expense of agricultural food production.

Not only farmers, but also civil society actors are involved in cultivating land within the city. The long-standing tradition of allotment gardening has resulted in defined areas for allotments throughout the city. This is not the case for the new urban gardening initiatives. The department in charge of green space management provides land for urban gardening initiatives, but this land is often in residual fields. Some urban gardening initiatives wish to get land on city farms. The department in charge, however, is ambivalent on this issue since more agricultural land for gardening initiatives means less land available to farmers – who are currently the main actors driving multifunctional urban agriculture.

Need to reconsider public policy on multifunctional urban agriculture

The policy goals for multifunctional urban agriculture are mainly framed along the lines of the national goals of Swiss agriculture, where important goals are the maintenance of the cultural landscape and nature conservation in terms of fostering biodiversity. One reason for using the rather rural definition of agriculture might be that farmers are mainly supported by agricultural funds at the national level. The city



Photo by Marianne Nitsch

provides additional funds for their farms. Nevertheless, as referred to by municipal authorities, supporting city farming is a "cheap form of land conservation". The city administration is dependent on farmers in order to fulfil its multifunctional land use goals. Farmers, however, have in part different land use goals in terms of conflict between nature conservation and food production, as mentioned above. One possibility for overcoming this is to broaden farmers' definition of "producing" to include "producing food and nature". This needs to be addressed on a national level, however, as representatives of the mainstream farming associations are generally sceptical towards the strong emphasis on nature conservation on agricultural land. In their opinion, food production should be the main goal.

The land-based policies and measures taken by the city of Zurich are considered innovative by farmers, by civil society $and also \, by \, city \, administration \, itself. \, Nevertheless, focussing$ only on land-based policies mainly framed along the lines of a rural definition of agriculture seems to be too narrow, considering the multiple environmental, social and cultural aspects that can potentially be addressed through multifunctional urban agriculture. Rethinking the goals and measures of multifunctional agriculture towards an urban approach could also include civil society actors as actors who potentially fulfil other aspects of multifunctional land use than farmers. A sound reorientation of policy goals would need to integrate farmers as well as civil society actors in the elaboration of the multifunctional concept for urban agriculture. This could lead to an institutional platform between city administration, farmers and civil society actors: for sharing a vision and fostering cooperation in order to deal with the various conflicts over land claims. It would also provide the chance to promote a more integrated image of urban agriculture, not only focussing on the environmental framework of how food is produced, but rather considering food from a more cultural and participatory perspective. This also has the potential for highlighting the multiple functions of urban agriculture and finding new arguments for protection of agricultural land within the city.

Ingrid Jahrl and Otto Schmid

Research Institute of Organic Agriculture (FiBL), Frick, Switzerland E-mail: ingrid.jahrl@fibl.org