## Social and Ecological Relevance of Home Food Gardens: The Case of Slovenia

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Self-provisioning with quality food (FSP) via food gardens plays an increasingly important role in the current discussion about sustainable alternatives to industrial food systems. So far, post-socialist Central and Eastern European countries, where household food production is claimed to be a widespread practise have been neglected in this growing area of research.

The present thesis seeks to explore the social as well as the ecological relevance of home food gardens (HFGs) as places of FSP in today's Slovenia. Their social relevance is determined by the examination of the extent of FSP in Slovenia, motivations for household food production and demographic and background characteristics of households involved in FSP via HFGs. The ecological relevance reflects on general HFG characteristics, cultivation and management practices and garden soil quality in terms of soil fertility (pH, phosphorous, potassium and soil organic matter) and food safety affecting contaminants (in this case heavy metals).

The thesis is based on an exploratory research design using an interdisciplinary mixed methods approach, combining an analysis of quantitative data on FSP and qualitative in-depth interviews. The quantitative data results from a nationwide household budget survey conducted by the Statistical Office of the Republic of Slovenia (SORS) in 2012 (N=3,663). Analysed variables include the extent of home food production as well as food types and quantities produced. Further, data from a nation-wide survey on HFGs (N=181) was analysed on garden characteristics, cultivation and management practices, the contribution of HFGs on the household budget and background characteristics of gardeners. Additionally, garden soil quality was analysed. For a deeper understanding of the motivations for FSP, applied garden management practices and the socio-cultural relevance of HFGs, 18 semi-structured in-depth interviews were carried out.

The analysis of the quantitative data shows that in 2012 46% of the non-farming households were involved in home food production. In addition to the expected

vegetable and fruit growing some gardeners also produced animal based products. The direct counter value of the home production is estimated at 700€ per household in 2012<sup>1</sup>. The main motivations stated during the in-depth interviews were the production of fresh and healthy food (in terms of food safety and human health), having local products (with respect to transport and cultural food preferences) and seasonal food consumption as well as a recreational activity. They mentioned sharing, gifting and exchange (of produce, information) as a part of gardening. Processed foods like wine, however, were also sold directly to acquaintances. Knowledge about plants and their management is passed on from older to younger generations. On average, gardeners were 50 years old, men and women being equally involved, but with differing tasks. HFGs have also been described as places of interaction with neighbours, friends and family. All interviewed gardeners stated that HFGs are part of a traditional Slovene lifestyle.

The majority of the interviewed gardeners stated to produce 'as organic as possible', which was understood to be the partial or complete abandonment of pesticides and chemical fertilizer. Instead, barn manure, compost and wood ash were used as fertilizers, and plant-based home-made sprays were applied for plant protection. However, the intensive use of 'natural fertilizers' was found to be problematic, since garden soil analyses indicate that HFGs are prone to overfertilization. Levels of phosphorous and potassium as well as pH ranked in most cases clearly above agronomical optima. The soil analysis further showed that heavy metal contents were elevated or even critical of some HFGs.

In view of the reported food amounts and diversity, the socio-cultural relevance, the proximity of production and the applied management methods, HFGs in Slovenia represent a sustainable method of food production for domestic consumption. Nevertheless, the environmental sustainability of Slovene HFGs could be improved by the promotion of organic management practices and skilled application of fertilizers.

Some gardeners expressed their concerns about the continuance of HFGs. They argued that an omnipresent supply of low priced food, changing consumer behaviour and lifestyle and rising working hours makes HFGs less attractive, especially to younger generations. On the other hand, the critical discussion about the current food

<sup>&</sup>lt;sup>1</sup> Expenses for gardening equipment, plants, etc. are not subtracted.

system and the demand for organically produced foods is growing rapidly in Slovenia. The promotion of sustainable home food production (for pure self-provisioning or even up to a commercial level) as part of an alternative food system could address this controversy.

It can further be concluded that FSP is a widespread, highly productive practice among surveyed households in Slovenia, substantially based on production in HFGs. HFGs serve as sources of supposedly environmentally sound food production, providing a wide informal network with a diversity of fresh and processed food and are also places of social gathering and knowledge exchange.

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