



Evaluation of sanitary risks versus benefits of gardening in urban areas : a case study in Belgiumy in

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Urban agriculture and green infrastructures have been spreading worldwide in recent years due to a shift of the balance between urban and rural areas as living place for the people. More than a half of the population now lives in cities and this trend is to be reinforced in the future. Simultaneously to the need to feed the urban people, there is a growing demand for self production by the city dwellers, some for financial reasons others for social or environmental purposes.

The access to land for crop production is often limited in most cities and collective gardens are typically places that allow people to practice agriculture. They are owned by public authorities, private agencies or communities and can take a variety of forms. The Urban Soil Project, financed within the Snowman network, aimed at studying relationships between socio-economical drivers of urban gardening, agronomical practices, soil quality, ecosystemic services and dysservices and human health in some collective gardens of western Europe.

One garden in Belgium was specifically studied after communication of first results showing that soils were highly contaminated in Cd, Pb and Zn, ao.

The study concerned transfers of contaminants from soils to vegetables and an evaluation of sanitary risks linked to the gardening activity. Targets, exposure pathways and scenarios were built according to the results of a questionnaire asked to the people using the collective garden. Results reveal high risks for given elements and scenarios but ways to quantify benefits linked to gardening should be investigated in order to be able to balance services and disservices and inform people so that they can take sound decisions about their activities.