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Soil issues in the panorama of urban gardening projects: a case study from Nantes

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Abstract

The inclusion of soil in urban planning, not just as a simple surface but as a natural resource, has accelerated over the last decade. This evolution has been helped by the growing demand of the urban population to benefit from qualitative green spaces and, in particular, gardening facilities (1). Similarly, the development of the concept of Nature-Based Solutions and the operational implementation of such solutions have also encouraged planners and local authorities to integrate gardening spaces more systematically into development projects (2). Urban gardens promote soil preservation actions. In particular, these NBS make it possible to activate de-sealing, reducing urban heat islands, the upgrading of parks, revegetation, water infiltration, etc. These developments for recreational gardening and food production nevertheless raise questions about land-use and the soil itself (nature, quality) which represent a challenge for the various actors in urban governance.

We studied urban gardening projects in the city of Nantes at different scales of governance, from the metropole to the plot, via the city and the neighborhood.

Firstly, we conducted an analysis of the soil issue in planning and citywide policies with the lens of urban gardening. To do this, we looked at several documents such as the local urban plan, territorial food plan, etc.. We also consider various urban gardening programs (allotment gardens, shared gardens, “Edible landscapes”).

This work was supported by a field survey in one district of Nantes, which led to a list and a typology of urban gardens projects.

This enabled us to analyse the interplay of actors throughout the life cycle of the gardens and to observe how the issue of establishing gardens (including the quality of the soil) is addressed by these different actors. Our study shows that 1) a differentiation of actors according to the type of garden and the interactions between them, 2) the diversity of apprehensions of the soil type and quality, and that 3) despite the existence of scientific and technical knowledge, their use by the different actors in urban gardening projects presents a number of difficulties, such as the management of soil, in case of contamination.

(1) “Urban Allotment Gardens in Europe”, Edited by Simon Bell, Runrid Fox-Kämper, Nazila Keshavarz, Mary Benson, Silvio Caputo, Susan Noori, Annette Voigt, © 2016 – Routledge

(2) J.B Almenar, T.Elliot, B. Rugani, Bodénan P., T.N. Gutierrez, G.Sonnemann, D. Geneletti, Nexus between nature-based solutions, ecosystem services and urban challenges, Land Use Policy, Volume 100, 2021, 104898, ISSN 0264-8377, https://doi.org/10.1016/j.landusepol.2020.104898

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