



IALE 2022 European Landscape Ecology Congress
MAKING THE FUTURE, LEARNING FROM THE PAST

IALE 2022

European Landscape Ecology Congress

Book of Abstracts

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Warsaw, 2022



The IALE 2022 European Landscape Ecology Congress (11-15 July 2022) was organised by Institute of Geography and Spatial Organization, Polish Academy of Sciences (IGiPZ PAN) and Faculty of Geography and Regional Studies, University of Warsaw (WGiSR UW) in partnership with European and Polish Associations for Landscape Ecology (IALE-Europe and PAEK).

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Co-financed by
Ministry of Education and Science

Honorary patronage



Ministry of Climate
and Environment

Partners



Recommended citation:

[Authors surname][Initial/s] (2022) [Title of abstract]. In: J. Wolski, E. Regulska, A. Affek (Eds.), IALE 2022 European Landscape Ecology Congress. Book of Abstracts (pp. xx-xx), IGIPIZ PAN, Warsaw.

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Published by Institute of Geography and Spatial Organization, Polish Academy of Sciences, Warsaw, 2022
DOI: <https://doi.org/10.7163/Konf.0004>
ISBN: 978-83-61590-99-6

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ECOSYSTEM SERVICES IN THE MILAN SOUTH-EASTERN EDGES. AN INTERDISCIPLINARY MONITORING APPROACH

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Peri-urban agricultural land functional recovery implies multi-facets processes, where human and ecological dynamics mostly need to be coupled in order to ensure effective results. Ecological and human sciences can help, from different perspectives, interlinking this plurality of impacts, while building composite management strategies for overcoming the existing barriers and enhancing the capacity of these systems of delivering multi-spectrum services within urbanized and agricultural areas. Based on these premises a study is being led on the Milan south-eastern rural edges, in an area interested by different agroecological projects and multistakeholder strategic visions. In particular, the study focuses on the effect of the policy strategies and effective actions on one side on the landscape agroecological functionality and, on the other side, on the role of this area as cultural medium, in relation to the participative approach implemented by the existing projects, directly involving citizens. Both aspects of the study address the issue of reconnecting and re-establishing a positive permeability between the urban and rural matrices.

On the ecological side, the study was preliminary focused on a detailed analysis of the current landscape ecological features. Based on field surveys and GIS analyses, the physiognomic, structural and dynamic traits of the landscape mosaic elements were studied, as well as their spatial patterns (Ingegnoli, 2002). A qualitative analysis of fluxes dynamics across the landscape mosaic helped mapping the existing barriers currently compromising the overall environmental stability of the area (Chiaffarelli, Vagge, 2021). This analysis was conceived as a useful tool for prioritising future interventions, allowing to map the possible effects attainable on landscape ecological dynamics through the agroecosystem diversification (in its composition, structure, dynamism and spatial configuration) and the mitigation of landscape texture gaps.

Moreover, the analysis results were the starting point for the setting of a methodology on the monitoring and assessment of the current and potential capacity of the area of implementing and generating ecosystem services, valuable both for the urban system balance and, on a cultural perspective, for its citizens (Dal Borgo et al., 2021). The concepts of connection, permeability and accessibility were indeed investigated not only from an ecological point of view, but also on their social and cultural sides. Indeed, a specific study is being led on the identification and evaluation of cultural ecosystem functions and services generated within regenerative agriculture and agroecology projects in the area, well known to the authors, who have already established partnerships with local associations and institutions.

The here presented evaluations represent useful methodological premises for the ongoing building of a comprehensive framework for the qualitative and quantitative assessment of the role of the studied peri-urban area in the provision of valuable and recognized ecosystem services, both on their ecological and cultural features.

Chiaffarelli G., Vagge I. (2021). *Methodological proposals for addressing agroecological design in peri-urban areas: a case study in the edges of Milan (Italy)*. AGROFOR International Journal, 6(1): 45-56.

Dal Borgo A.G. et al. (2021). *Luoghi e comunità. Storie di rigenerazione*. Milano-Udine: Mimesis.

Ingegnoli V. (2002). *Landscape Ecology: A Widening Foundation*. Berlin-New York: Springer-Verlag.