

Environmental sustainability as a component of age-friendly residential areas: Evidence from Moldova

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Abstract

Urban ageing and environmental sustainability increasingly intersect as critical challenges for contemporary cities. This study analyses the role of environmental sustainability in assessing the age-friendliness of residential estates in Chişinău, a medium-sized European city characterised by a high share of urban green areas. The research applies the Age-Friendly Residential Areas (AFRA) methodology to evaluate residential estates developed in different historical periods and based on diverse building technologies. Spatial analysis focuses i.a. on the distribution and accessibility of green infrastructure, functional layout of estates, and their relationship to environmental quality and everyday usability for older residents. The assessment integrates environmental, social and economic pillars of sustainable development, with particular emphasis on spatial attributes relevant to environmental management and land use planning. The results demonstrate that age-friendly outcomes are strongly linked to the quality and spatial integration of green areas, accessible infrastructure and communal spaces rather than to construction technology alone. The environmental pillar proves to be a key factor in differentiating residential estates in terms of age-friendliness. The findings confirm the applicability of the AFRA framework as a spatial decision-support tool that can support urban planning, land management and sustainable housing policies in cities facing demographic change, aligning with the objectives of European green city initiatives.

Keywords: urban ageing, accessibility, land use, green infrastructure, GIS tools