

## The Impact of Biodiversity and Urban Ecosystem Services in Real Estate

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**Abstract :** Our research project aims at analyzing the sensitiveness of French households to urban biodiversity and urban ecosystem services (UES). Opinion surveys show that the French population is sensitive to biodiversity and ecosystem services loss, but the value given to these issues within urban fabric and real estate market lacks evidence. Using GIS data and economic evaluation, by hedonic price methods, we assess the isolated contribution of the explanatory variables of biodiversity and UES on the price of residential real estate. We analyze the variation of the value for three urban ecosystem services - flood control, proximity to green spaces, and refreshment - on the price of real estate when a property changes ownership. Our modeling and mapping focus on the price at the IRIS scale (statistical information unit) from 2014 to 2019. The main variables are internal characteristics of housing (area, kind of housing, heating), external characteristics (accessibility and infrastructure, economic, social, and physical environments such as air pollution, noise), and biodiversity indicators and urban ecosystem services for the Ile-de-France region. Moreover, we compare environmental values on the enhancement of green spaces and their impact on residential choices. These studies are very useful for real estate developers because they enable them to promote green spaces, and municipalities to become more attractive.

**Keywords :** urban ecosystem services, sustainable real estate, urban biodiversity perception, hedonic price, environmental values

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