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COST-BENEFIT ANALYSIS OF GREEN ROOFS IN DENSELY BUILT-UP AREAS

Abstract:

This paper presents a cost-benefit analysis of vegetated roofs in urban areas based on an extensive literature review in multiply fields. Green roofs have been used as an environmentally friendly roofing structure for many centuries and considered as a sustainable product. Research shows that private benefits are usually high enough to justify the additional investment for a private decision maker. Although, when the public benefits are added to the private benefits, than in the most cases benefits outweigh additional costs of green roofs. The analysis is conducted to demonstrate the private and public costs and benefits of integrated vegetation into building envelopes. Most of the benefits are not directly measurable in economic term, thus their monetary value is estimated due to other studies.

Keywords:

built-up area; cost-benefit analysis; green roof

JEL Classification: Q51