

Ecosystem Services Assessment for Urban Nature-Based Solutions Implemented in the Public Space: Case Study of Alhambra Square in Bogotá, Colombia

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Abstract : Bogota is making efforts towards urban resilience through Nature-based Solutions (NbS) incorporation in public projects as a climate change resilience strategy. The urban renovation project on the Alhambra square includes Green Infrastructure (GI), like Sustainable Urban Drainage Systems (SUDS) and Urban Trees (UT), as ecosystem services (ES) boosters. This study analyzes 3 scenarios: (1) the initial situation without NbS, (2) the expected situation including NbS in the design and (3) the projection of the second one after 30 years, calculating the ecosystem services, the stormwater management benefits provided by SUDS and the cultural services. The obtained results contribute to the understanding of the urban NbS benefits in public spaces, providing valuable information to foster investment in sustainable projects and encouraging policy makers to integrate NbS in urban planning.

Keywords : ecosystem services, nature-based solutions, stormwater management, sustainable urban drainage systems

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