

REVIEWER'S REPORT

Manuscript No.: IJAR-51692

Date: May 17, 2025

Title: Assessing the Impact of LEED Buildings on Urban Heat Islands (UHIs): Challenges, Consequences, and Retrofitting Solutions

Recommendation:

Accept as it is

Accept after minor revision

Accept after major revision

Do not accept (*Reasons below*)

Rating	Excel.	Good	Fair	Poor
Originality		X		
Techn. Quality		X		
Clarity			X	
Significance			X	

Reviewer Name: Lakhdar Guerine

Date: May 17, 2025

Reviewer's Comment for Publication.

(To be published with the manuscript in the journal)

The reviewer is requested to provide a brief comment (3-4 lines) highlighting the significance, strengths, or key insights of the manuscript. This comment will be Displayed in the journal publication alongside with the reviewers name.

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Detailed Reviewer's Report

International Journal of Advanced Research

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This study explores how LEED-certified buildings can reduce Urban Heat Island (UHI) effects. It focuses on three core strategies:

- Green roofs,
- High-albedo materials, and
- Urban vegetation.

Through case studies in U.S. cities (New York, Los Angeles, Dallas) and U.K. cities (Birmingham, Nottingham, Coventry), the research evaluates the energy, ecological, and social benefits of these methods. It also discusses the technical, financial, and regulatory challenges that limit their wider application. The report offers practical retrofitting solutions and emphasizes the need for stronger political and financial support.

Strengths

1. Multidimensional approach : The report addresses environmental, technical, social, economic, and policy dimensions, offering a holistic view.
2. Diverse case studies : The comparative analysis across American and British cities strengthens its global relevance.
3. Well-defined objectives : The research goals are clear, targeted, and effectively structured.
4. Rich academic referencing : Up-to-date sources (up to 2024) ground the work in current literature.
5. Concrete recommendations : Policy and financial suggestions are clear, actionable, and relevant to practitioners and city planners.

Weaknesses

1. Excessive length : At over 30 pages, the document suffers from density that undermines clarity.
2. Lack of primary data : The study relies solely on secondary sources, no original data collection or fieldwork is presented.
3. Repetition : Certain concepts, such as green roofs, are discussed multiple times without added insight.
4. Limited visual material : Few original charts or figures, reliance on external graphics reduces visual engagement.
5. Stylistic inconsistency : Some sections are verbose or overly technical; improved editing would enhance readability and academic tone.

Recommendation: Minor Revision

The following should be addressed:

- Condense and restructure for improved readability.
- Strengthen the methodology, even through a structured meta-analysis or comparative framework.
- Include original visuals (tables, diagrams, maps).
- Edit for style consistency and eliminate redundancies.