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Toward Achieving Urban Renewal from the Perspective of Social Sustainability

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Abstract

Urban renewal is a dynamic and essential process aimed at revitalizing aging and deteriorated urban areas through building renovation, the creation of new public spaces, and the enhancement of public services. This study seeks to ensure that urban environments remain vibrant and functional, providing residents with a high quality of life through well-designed renewal initiatives.

When implemented through a comprehensive approach that integrates economic and environmental sustainability in service of social goals and human needs, urban renewal can significantly enhance quality of life while preserving the distinctive character of urban areas.

This paper adopts a holistic perspective that reconfigures the dimensions of sustainability to prioritize the social dimension**,** integrating economic and environmental considerations to serve inclusive development. Through a theoretical and analytical study grounded in successful global experiences, the paper identifies key strategies and conceptual approaches for achieving socially sustainable urban renewal, while safeguarding urban identity and promoting social justice.

Keywords: Urban renewal, Sustainability, Social sustainability, Quality of life, Community Participation

1. Research Problem

Many urban renewal projects face challenges in achieving the dimensions of sustainability, as each aspect of sustainable development is often addressed in isolation. This fragmented approach leads to weak community engagement and a lack of attention to the cultural and local needs of residents. To address this gap and better understand the potential for integrated

sustainability in urban renewal, this study poses the following research questions:

- How can environmental and economic sustainability be leveraged to serve the social dimension through urban renewal?
- How do urban renewal elements contribute to the enhancement of social sustainability?
- To what extent do urban renewal projects reflect the principles of social sustainability?

2. Research Methodology

Research methodology is the systematic method for guiding the steps of data collection, analysis, and interpretation to arrive at accurate results. This methodology aims to provide a clear and coherent plan that helps the researcher achieve the research objectives in a systematic and scientific manner. The chart below shows the methodology for research:

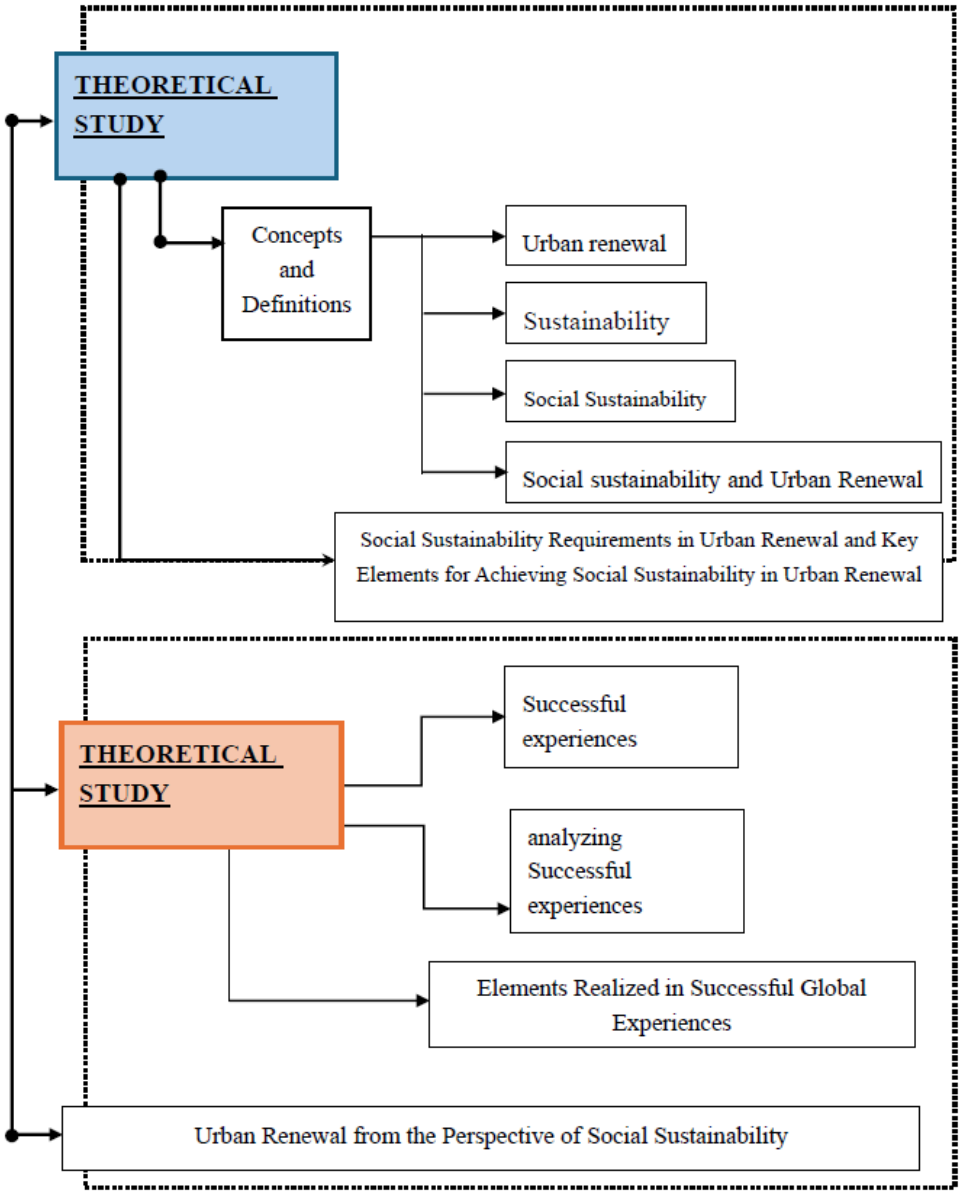

Figure 1. Research Methodology (Author)

3. Urban Renewal

Urban renewal has been defined in various ways depending on the context, ranging from physical redevelopment of deteriorated areas to structured social and developmental transformation. This section presents key definitions to clarify its conceptual dimensions.

3.1 Urban Renewal Definition:

- "Urban renewal is the process of slum clearance and physical redevelopment that takes account of other elements such as heritage preservation" (Couch, Sykes, & Boerstinghaus, 2011)
- "Urban regeneration is a comprehensive integration of vision and action aimed at resolving the multi-faceted problems of deprived urban areas to improve their economic, physical, social, and environmental conditions" (Ercan, 2011)
- "Urban renewal is the strategic process to improve specific areas of a city that are poorly developed or underdeveloped. Urban renewal can be done for both high- and low-density areas depending on the focus area. These areas can have old deteriorated buildings and bad streets and utilities or the areas can lack streets and utilities altogether, Urban Renewal' is used to refer to the general process of transforming the urban environment" (Ansumant, 2019).

In summary, urban renewal aims at improving the physical, socio-economic, and environmental aspects of urban areas through a set of actions that include redevelopment, rehabilitation, and heritage preservation. Accordingly, this leads to a discussion of the main approaches to urban renewal, which will be addressed in the following section of this paper.

3.2 Urban Renewal Methods

The following is a presentation of the most important urban renewal methods that help improve the community environment (Al-Asasfeh et al., 2007).

3.2.1 Redevelopment

Demolition is the process of completely or largely removing existing buildings in an area undergoing urban renewal, except for buildings of historical architectural value. The redevelopment approach involves reconsidering existing land uses and distribution patterns, demolishing buildings, and reconstructing them anew. This method is used in areas where it is economically unfeasible to maintain the deteriorated urban fabric due to the end of its functional lifespan.

This approach is accompanied by several challenges, including the disruption of social ties, the need for substantial financial, human, and technical resources, and the inability of low-income social groups to afford the financial costs and rents of the redeveloped housing units. It also exacerbates the existing housing deficit and sometimes results in design concepts that fail to resonate with the pre-existing character of the area, leading to a sharp break in the historical development continuum, often in varying degrees.

3.2.2 Rehabilitation

This approach includes improving and raising the architectural level of the urban fabric in the area undergoing urban renewal, which suffers from damage to some of its elements. It aims to compensate for the deficiencies in infrastructure, social services, and open spaces by partially demolishing some dilapidated buildings and constructing new ones in their place. This method is considered one of the most commonly used for enhancing the quality and standard of housing units due to the following advantages: - reducing the costs associated with new housing units and expropriation, demolition, and regeneration, while maintaining social ties and the existing social structure as much as possible, and having a shorter time frame compared to redevelopment methods. Additionally, it preserves the existing urban pattern and distinctive character.

3.2.3 Historical Preservation

This approach includes a policy of preserving buildings of historical and heritage value and maintaining areas and spaces of the entire urban fabric as part of cultural heritage. This method is utilized due to the need to protect buildings and areas for the following reasons: - Protecting national heritage and urban fabric as a result of increasing pressures and changes that threaten the fabric with extinction and the necessity to adapt it to meet contemporary requirements, and the lack of infrastructure and social services. The concept of reuse is linked with the concept of preservation, allowing buildings and neighborhoods to be made suitable for second use, not necessarily for the original function itself, which permits a degree of flexibility.

3.2.4 Urban Infill

It is a process of filling the gaps in the urban fabric that has historical connections and distinctive urban characteristics that are unified and visually connected by adding one or more new buildings to form, collectively, a functional and visually cohesive fabric. They should be harmonious in terms of height, skyline, mass size, building scale, dimensions, facade treatment, openings, construction materials, colors, and setbacks. This is linked to the concept of developing or rehabilitating old areas so that these buildings become points of reference and impactful in the visual composition.

3.2.5 Comprehensive Revitalization

It is an approach that deals with areas of urban deterioration by revitalizing them in a way that preserves their urban character. It should be based on demographic, economic, and social studies and deal with the movement system and land uses. It must fulfill a set of methodological requirements, namely: the revitalization process should balance urban renewal policies and methodologies according to the specificity of each case or area. The urban fabric in the areas pertaining to this policy should be divided into three parts: the first part, which needs to be preserved, maintained, and adapted so that it can perform its function and be reused; the second part, which requires reconstruction due to its lack of economic and historical value; and the third part, which necessitates comprehensive revival and renewal. Detailed criteria should be established to address these aspects such as maintenance, repair,

urban infill, or reuse of individual buildings.

4. Sustainability

The concept of sustainability has been defined in various ways; however, this paper will not address all existing definitions. Instead, it will adopt the definition that best aligns with the context of the research.

"Sustainable development meets the needs of the present without compromising the ability of future generations to meet their own needs." This broad definition effectively summarizes much of the philosophy of sustainability and will be used in this paper (Hasna, 2007).

4.1 Dimensions of Sustainability

Sustainability is a central concept in urban planning and contemporary development, based on three interconnected dimensions: the environmental dimension, which focuses on the protection of natural resources and reducing environmental impact; the economic dimension, which aims to achieve economic growth and provide sustainable job opportunities; and the social dimension, which is concerned with achieving justice, equality, and improving the quality of life for all members of society.

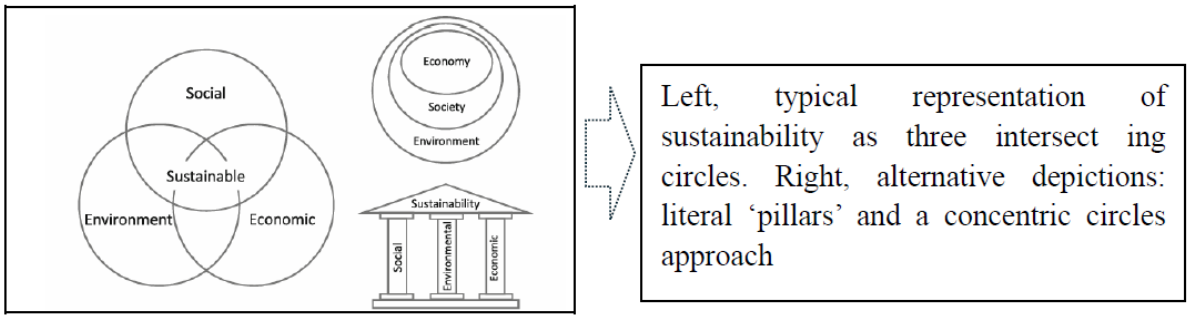

Figure 2. Dimensions of sustainability (Purvis et al., 2019)

It is widely recognized that the dimensions of sustainability include the economic, environmental, and social aspects (Purvis et al., 2019). Despite the extensive debates and research surrounding these dimensions, classifying them as three distinct pillars, while others depict them as overlapping or intersecting circles. I personally view sustainability as comprising two primary dimensions that serve a third. Specifically, the economic and environmental dimensions must ultimately fulfill the social dimension by meeting the needs of the community. Moreover, it is essential that the community actively participates in shaping both the economic and environmental aspects Through urban renewal as shown below:

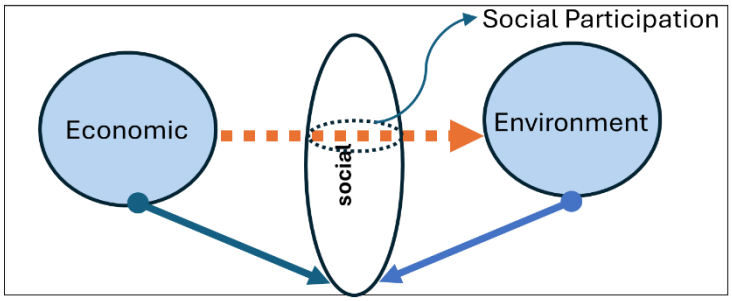

Figure 3. Dimensions of sustainability from Author perspective

4.2 Social Sustainability

Social sustainability is defined as a continuous activity aimed at improving the quality of life for all segments of society in the present and the future. This activity embodies the spirit of community and comprehensive cooperative care by individuals and institutions within society for the benefit of the state and society as a whole. Social sustainability requires that all members of society reach a stage where they accept differences and view them as sources of strength and distinction that drive growth and well-being for everyone. It is a process aimed at expanding human choices beyond income and economic growth to achieve the full flourishing and development of human capabilities. It places human needs, expectations, and opportunities at the core of concerns and activities, focusing on both men and women, as well as current and future generations (Ricee, 2023).

Bacon and his colleagues believe that social sustainability represents the quality of life of people now and in the future. It describes the individual and collective well-being provided by neighborhoods. Social sustainability results from the design of the built environment and how people interact with spaces and use them, and its impact on social relations. This is enhanced by development targeting the provision of infrastructure to support a strong community, cultural life, opportunities for social interaction, and spaces for place and community development.

Social sustainability is defined as a comprehensive evolutionary strategy that seeks to empower individuals and build their capabilities (both cognitive and physical production mechanisms), expanding their choices in various fields, especially social, as well as political and economic domains, while emphasizing fairness and social justice among the current generation or between current and future generations, and respecting traditions, customs, and social identity as sources of enrichment(Woodcraft et al., 2012).

Wiam Yassin Al-Hayti believes that the degree of social relationship can be simply increased or decreased by making the surrounding built environment more acceptable to its residents, which makes them feel a sense of belonging to it because it brings comfort, joy, and happiness among the inhabitants. The sense of belonging is enhanced by participation and getting to know others who share and resemble in characteristics, values, and cultural and social aspirations (Alwah et al., 2023).

Through the preceding set of concepts, we can move toward exploring how to achieve this through urban renewal and the application of its methods and strategies within a socially sustainable framework.

4.3 Social Sustainability and Urban Renewal

Sustainable community urban renewal means organizing city development processes without overly relying on the rural hinterland for these natural resources. This involves relying on alternative and renewable energy sources to reduce the city's environmental footprint, producing fewer pollutants, using urban land more efficiently, and placing a greater emphasis on recycling processes, thereby reducing the city's contribution to climate change. From a social perspective, urban sustainability means the practical application of community planning to ensure urban systems that enjoy longer viability, better quality of life, and sustainable self-sufficiency, such that development processes do not exceed the carrying capacity and the ability of the natural system of that community to renew resources.

It can be said that urban sustainability is a state of balance and redefinition of environmental, economic, social, and even political and institutional determinants and goals of the city, which enables or provides a greater opportunity to achieve sustainable urban development. Thus, urban sustainability in reality combines the sustainability of natural resources, technical, financial, and community sustainability of that city under the umbrella of sustainable urban development.

Studies indicate that the social and economic vitality of residential neighborhoods, cities, and areas is not only in question, but also their environmental safety is uncertain, and that current urban expansion processes pose a series of threats to the global environment (Bai et al., 2023).

Participatory design has emerged as a key strategy for achieving social sustainability in urban renewal. By actively involving residents in planning and decision-making, it fosters resilient urban systems that reflect community needs and values, while promoting social equity and empowerment, as will be further illustrated below.

4.3.1 The Role of Participatory Design in Promoting Social Sustainability in Urban Renewal

Recent urban planning literature, particularly since 2020, has increasingly recognized participatory design as a foundational strategy for advancing social sustainability in urban renewal initiatives. This approach entails the active involvement of local residents throughout the planning, design, and implementation stages, ensuring that urban interventions are aligned with community needs and cultural contexts. A systematic review by Lai, Wang, and Xia (2025) underscores the evolution of this field, emphasizing the critical role of interdisciplinary collaboration—spanning environmental sciences, sociology, and economics—in fostering socially just and resilient urban environments.

Complementary research by Srinivasan (2024) in Community Engagement and Social Equity in Urban Development Projects identifies best practices for enhancing community participation and promoting social equity. These include transparent decision-making,

inclusive engagement of diverse population groups, attentive responsiveness to community needs, and the integration of digital tools such as virtual workshops and participatory mapping to broaden accessibility and inclusion. Collectively, participatory design has been shown to cultivate a sense of ownership and belonging, improve project viability, and harmonize local knowledge with technical expertise—making it a pivotal mechanism for achieving socially sustainable urban renewal.

Based on the foregoing, it can be inferred that the way to achieve social sustainability through urban renewal can be translated into a set of social requirements that are considered essential for the success of urban renewal from the perspective of social sustainability. As previously mentioned, this is an integrative outcome of economic and environmental sustainability. These elements can be derived from theoretical study and, according to the author's perspective, are presented in the following table (Adapted from Abbas (2005) by the author).

Table 1. Social Requirements and Key Elements for Achieving Social Sustainability in Urban Renewal (Adapted from Abbas (2005) by the author)

	Social Sustainability Requirements in Urban Renewal	Key Elements for Achieving Social Sustainability in Urban Renewal
Social Sustainability Requirements Through the Integration of Economic and Environmental Sustainability	Preserving social values, community, and neighbourhood cohesion Achieving social cohesion and reducing social segregation Conserving resources and protecting the environment Ensuring equity between needs and available capacities Activating economic systems to reduce overall costs Mobility management	• Shared language between resident and designer • Training to understand designs and plans • Participation in decision-making • Community-adopted values • Group, community, and neighborhood • Safety • Possibility of choice • Clarity • Privacy • Direct supervision • Emergence of personal imprint • Provision of a wide range of income levels • Diversity in household sizes • Energy efficiency • Utilization of existing resources • Utilization of solar energy • Utilization of wind energy • Utilization of photovoltaic cells • Water conservation • Biotic masses • Cost reduction • Reduction of energy used in construction • Increased use of local and recycled materials • Preservation of open spaces • Construction on previously developed land

5. Successful Experiences of Social Sustainability Urban Renewal

Urban renewal is a developmental process aimed at revitalizing urban areas in innovative and sustainable ways. Successful examples in this field go beyond merely improving infrastructure; they also focus on enhancing residents' quality of life, preserving cultural and

architectural heritage, and promoting economic and social development.

The chart below shows the methodology for analyzing Successful experiences

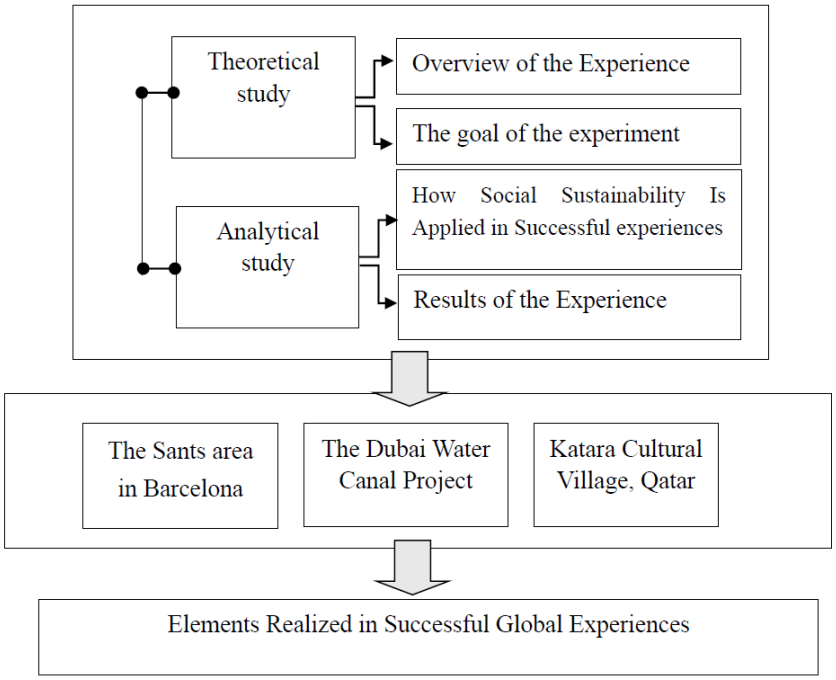

Figure 4. methodology for analyzing Successful experiences (Author)

5.1 The Sants Area in Barcelona

The Sants neighborhood in Barcelona, one of the city's oldest districts, is renowned for its rich industrial heritage. During the Industrial Revolution, it emerged as a hub for factories that attracted a growing labor force in search of employment and housing. In recent decades, Sants has undergone a transformative urban renewal process, evolving from an aging industrial zone into a vibrant center for technology and innovation. The renewal project prioritized the preservation of historical landmarks while integrating advanced infrastructure, resulting in a unique urban landscape that harmoniously blends heritage with modernity (Aldayjover Arquitectura y Paisaje, 2018).

5.1.1 How Social Sustainability Is Applied in The Sants area in Barcelona

The following outlines how the experience operationalized the key elements of social sustainability:

- Repurposing Old Buildings: Historical industrial structures were preserved and adapted for modern purposes such as offices, co-working spaces, and art galleries. This minimizes demolition and new construction, reducing waste (Lusiardi, 2019).

Figure 5. Lleialtat-Sans-Barcellona before and after renewal (Lusiardi, 2019)

Once the seat of a working-class cooperative in Barcelona's Sants neighborhood, just west of Placa d'Espagna, the Lleialtat Santsenca is a 19th-century building that has been restored and converted into a Civic Center for the local community

Figure 6. solar energy systems used in The Sants area in Barcelona (Lusiardi, 2019)

- Energy Efficiency: Many buildings are equipped with solar energy systems and green roofs, providing thermal insulation and reducing energy consumption.
- Encouraging Clean Mobility: The area features infrastructure dedicated to pedestrians and cyclists, which helps reduce pollution caused by cars.
- Water Resource Management: Techniques for water recycling and utilization in irrigation and maintenance were implemented, promoting sustainable resource consumption.
- Revitalizing the Local Community: By transforming the old industrial area into a modern hub for technology and innovation, new job opportunities were created, attracting talent and stimulating the local economy while strengthening social ties.
- Public Spaces: The area was designed to include plazas and public gardens that encourage social interaction, allowing individuals from diverse cultural backgrounds to meet and connect.
- Cultural and Artistic Events: The area hosts exhibitions, workshops, and events that promote cultural understanding and encourage the exchange of ideas between residents and visitors.
- Education and Technology: The presence of educational centers and technological facilities supports continuous learning and interaction across different generations.

- Community Engagement and Participatory Planning: Community engagement played a central role in the Sants renewal process. Local residents, neighborhood associations, and former industrial workers were actively involved through public hearings and participatory design workshops organized by the Barcelona City Council. Their input shaped key project decisions such as preserving specific heritage buildings, determining the mix of land uses, and prioritizing pedestrian mobility over car traffic. This participatory approach ensured that the redevelopment reflected community values, strengthened local identity, and enhanced residents' sense of ownership over the transformed urban

Based on the Social Requirements derived from the theoretical framework, the extent to which social sustainability is achieved through urban renewal in The Sants area project can be articulated through the following key aspects:

Table 2. How Social Sustainability Requirements achieved in The Sants area in Barcelona Through Urban Renewal

Social Sustainability Requirements Through the Integration of Economic and Environmental Sustainability	Social Sustainability Requirements in Urban Renewal	Key Elements for Achieving Social Sustainability in Urban Renewal
	Preserving social values, community, and neighbourhood cohesion	Adaptive reuse of heritage buildings and activation of public spaces preserved local identity and strengthened community bonds.
	Achieving social cohesion and reducing social segregation	Open plazas and cultural programming encouraged interaction across diverse groups, reducing social isolation.
	Conserving resources and protecting the environment	Solar energy, green roofs, and water recycling reduced environmental impact and promoted sustainability
	Ensuring equity between needs and available capacities	Clean mobility infrastructure, educational spaces, and diverse job opportunities addressed varied community needs.
	Activating economic systems to reduce overall costs	Repurposing existing structures and supporting local innovation reduced development costs and boosted economic efficiency
	Mobility management	Dedicated pedestrian and cycling paths, along with public transport integration, enhanced sustainable mobility and accessibility.

5.1.2 Results of the Experience

As a direct outcome of the integration between environmental and economic dimensions in the Sants urban renewal project, an advanced level of social sustainability was achieved reflected in improved quality of life, strengthened community cohesion, and the provision of a more equitable and inclusive urban environment. The efficient use of resources and reduction of operational costs supported community activities, generated local economic opportunities, and enabled the delivery of sustainable urban services, making the project a

replicable model for other urban contexts.

5.2 The Dubai Water Canal Project

The Dubai Water Canal is located in Dubai, United Arab Emirates. It extends the Dubai Creek, connecting it to the Arabian Gulf, and passes through Business Bay before reaching Jumeirah. The canal is a 3.2 km long waterway, with a 3-kilometer pedestrian walkway along its banks.

The Dubai Water Canal Project connects Dubai's rich history to its vibrant future, linking the Business Bay to the Arabian Gulf through an extensive mixed-use waterfront development with three spectacular pedestrian bridges that promote walkability and offer breathtaking city views. Here are the details (AE7, 2016)

5.2.1 How Social Sustainability Is Applied in The Dubai Water Canal Project

The following outlines how the experience operationalized the key elements of social sustainability:

Figure 7. Water Canal Project , master plan (AE7, 2016)

- Green Network: Connects Safa Park and the new Jumeirah Beach Park, enhancing green spaces and reducing urban heat effects.

Figure 8. Green Network in Dubai Water Canal (AE7, 2016)

- Smart Waterfall: The waterfall features a smart mechanism that stops the flow of water automatically when boats approach, minimizing water wastage.

Figure 9. Smart Waterfall in Dubai Water Canal (AE7, 2016)

- Pedestrian and Bicycle Paths with Public Spaces: The project integrates dedicated pathways for walking and cycling, promoting sustainable mobility and reducing reliance on private vehicles. In addition, it offers open public areas such as gardens, walking trails, and jogging paths that foster social interaction, enhance community cohesion, and contribute to the overall quality of urban life.

Figure 10. Pedestrian and Bicycle Paths in Dubai Water Canal (AE7, 2016)

- Sustainable Design: The canal was designed to be a tourist attraction while preserving the environment, incorporating techniques that reduce its carbon footprint.
- Eco-Friendly Boat Cruises: The canal features boat tours operated by clean energy powered vessels, contributing to environmental sustainability by minimizing pollution. Simultaneously, it provides recreational amenities such as boat cruises and waterfront restaurants, fostering a vibrant social atmosphere that encourages interaction between residents and visitors and enhances the area's cultural and communal vitality.

Figure 11. Eco-Friendly Boat Cruises in Dubai Water Canal(AE7, 2016)

- Cultural Interaction: Through events and festivals held in the area, the project enhances cultural understanding and facilitates the exchange of ideas among diverse communities, fostering inclusivity, mutual respect, and a shared sense of identity.
- Economic Development: The project has created new job opportunities in tourism and services, supporting the local community and fostering social stability.
- Community Engagement and Participatory Planning: Although the Dubai Water Canal Project was primarily initiated and managed by government and private development entities, community engagement played an important role in shaping several aspects of the project. During the planning phase, public consultations and stakeholder meetings were organized by Dubai Municipality and the Roads and Transport Authority (RTA) to gather input from local residents, business owners, and environmental groups. Feedback from these sessions influenced decisions related to pedestrian connectivity, the inclusion of recreational spaces, and the preservation of public accessibility along the waterfront. Additionally, interactive exhibitions and media campaigns helped raise awareness and encouraged public participation, ensuring that the canal development aligned with community aspirations for livability, accessibility, and social inclusivity.

Based on the Social Requirements derived from the theoretical framework, the extent to which social sustainability is achieved through urban renewal in The Dubai Water Canal Project can be articulated through the following key aspects:

Table 3. How Social Sustainability Requirements achieved in The Dubai Water Canal Project Through Urban Renewal

Social Sustainability Requirements Through the Integration of Economic and Environmental Sustainability	Social Sustainability Requirements in Urban Renewal	Key Elements for Achieving Social Sustainability in Urban Renewal
	Preserving social values, community, and neighbourhood cohesion	Cultural events and festivals play a key role in preserving social values and strengthening community and neighborhood bonds.
	Achieving social cohesion and reducing social segregation	Open public areas promote social cohesion and reduce segregation by providing inclusive spaces for shared interaction and community engagement.
	Conserving resources and protecting the environment	Conserves resources through a green network linking parks, a smart waterfall system, sustainable canal design, and eco-friendly boat cruises.
	Ensuring equity between needs and available capacities	The design contributes to providing an equitable urban environment that enables all individuals to access services and facilities without discrimination.
	Activating economic systems to reduce overall costs	Smart systems reduce long-term costs through water conservation, while tourism and services boost local employment and economic activity.
	Mobility management	Dedicated pedestrian and cycling paths, integrated seamlessly with public spaces, promote active mobility, enhance accessibility, and foster inclusive urban environments.

5.2.2 Results of the Experience

As a result of fulfilling the requirements of social sustainable development, the project is considered a successful example in the application of socially sustainable urban renewal. It strengthened community cohesion through inclusive public spaces and cultural events, ensured equitable access to services, and supported local economic development through tourism and smart systems that reduce operational costs. The seamless integration of pedestrian and cycling paths further promoted active mobility and enhanced the quality of urban life, positioning the project as a replicable model for socially sustainable urban renewal.

5.3 Katara Cultural Village, Qatar

The Katara Cultural Village in Qatar is a unique cultural and tourist destination that beautifully blends Qatari heritage with global cultures.

The Katara Cultural Village, located northeast of Doha between the Pearl Qatar and Dafna Towers along the West Bay shoreline, is a vibrant hub that blends Qatari heritage with global cultures. It features iconic attractions such as the open-air amphitheater, Roman-style theater, and the Grand Katara Mosque, renowned for its unique architecture. Throughout the year, Katara hosts cultural festivals, art exhibitions, and musical events, creating an atmosphere of cultural exchange. With its diverse restaurants, cafes offering international cuisines, a beautiful beach, and lush green spaces, the village provides a welcoming environment for relaxation and creativity. Its vision is to promote cultural understanding, preserve Qatari traditions, and serve as a platform for artistic expression. The Katara Cultural Village in Qatar integrates numerous sustainable elements to enhance the balance between culture and the environment (Boom General Contractors, n.d.).

The Katara Cultural Village in Qatar integrates numerous sustainable elements to enhance the balance between culture and the environment**.**

5.3.1 How Social Sustainability Is Applied in Katara Cultural Village, Project

The following outlines how the experience operationalized the key elements of social sustainability:

- Eco-Friendly Buildings: The village's infrastructure was designed using sustainable building materials and techniques that reduce energy consumption.
- Gardens and Green Spaces: The area features numerous gardens and open spaces, contributing to improved air quality and maintaining the region's environmental balance.

Figure 12. Gardens and Green Spaces (iStock, n.d.)

- Encouraging Pedestrian Movement and Clean Transport: The village's design promotes walking and cycling, reducing reliance on cars and lowering carbon emissions.

Figure 13. walking and cycling area (iStock, n.d.)

- Efficient Water Management: Advanced systems for water recycling and usage in irrigation help minimize the waste of natural resources.
- Blending Heritage with Sustainability: The architectural designs in Katara combine traditional Qatari identity with modern innovations, reflecting respect for heritage and environmental awareness.

Figure 14. Katara Cultural Village, theatre (iStock, n.d.)

- Cultural Diversity Festivals: Hosting over 20 national representations annually to celebrate global heritage
- Public Art and Urban Space: Integrating art installations and murals to enhance community identity and environmental awareness
- Educational Workshops and Exhibitions: Empowering local and international artists and audiences through participatory platforms

- Community Engagement and Participatory Planning: While Katara Cultural Village is primarily a government-led cultural development, social sustainability was fostered through structured forms of community engagement. Participatory mechanisms included cultural festivals, workshops, and educational programs that invited both local and international audiences to actively contribute ideas, showcase artistic talents, and provide feedback on event programming. These initiatives indirectly influenced project decisions by shaping the selection of cultural activities, public art installations, and the design of communal spaces, ensuring that the village met diverse social, cultural, and recreational needs. By promoting cultural interaction, inclusivity, and community involvement, Katara operationalizes social sustainability even in the absence of direct resident participation in infrastructure planning (AlSuwaidi & Furlan, 2017).

Based on the Social Requirements derived from the theoretical framework, the extent to which social sustainability is achieved through urban renewal in Katara Cultural Village project can be articulated through the following key aspects:

Table 4. How Social Sustainability Requirements achieved in Katara Cultural Village Project Through Urban Renewal

Social Sustainability Requirements Through the Integration of Economic and Environmental Sustainability	Social Sustainability Requirements in Urban Renewal	Key Elements for Achieving Social Sustainability in Urban Renewal
	Preserving social values, community, and neighbourhood cohesion	Cultural events, heritage-based architecture, and inclusive public spaces reinforce identity and communal bonds
	Achieving social cohesion and reducing social segregation	Recreational amenities (e.g., boat cruises, waterfront areas) encourage interaction among diverse groups
	Conserving resources and protecting the environment	Use of clean energy boats, eco-friendly buildings, green spaces, and water recycling systems
	Ensuring equity between needs and available capacities	Balancing diverse community needs with available resources by ensuring fair service distribution and directing investments toward priority groups and areas.
	Activating economic systems to reduce overall costs	Job creation in tourism and services, support for local businesses, and cultural tourism
	Mobility management	Promoting walking and cycling, reducing car dependency, and integrating clean transport modes

5.3.2 Results of the Experience

Katara exemplifies an integrated model of social sustainability in urban renewal. Cultural events, heritage-based architecture, and inclusive public spaces have contributed to strengthening local identity and community cohesion. Recreational activities such as boat rides and diving have created an environment that fosters interaction among diverse social

groups, helping to reduce social segregation. Katara has also adopted clean transportation modes and green spaces, alongside efficient resource management, reflecting a clear commitment to environmental preservation. In terms of equity, a variety of services have been provided at reasonable prices, with attention to the needs of families and different social segments, thereby enhancing fair access to resources.

Moreover, Katara has contributed to job creation in the tourism and service sectors, and has stimulated the local economy through events and commercial facilities. Mobility management has been enhanced through walkable pathways and sports activities. Altogether, Katara stands as a successful model for achieving social sustainability within urban renewal projects.

6. Urban Renewal from the Perspective of Social Sustainability

Based on an analysis of successful global case studies, socially sustainable urban renewal can be achieved, as illustrated in the diagram below. To ensure the integrity and success of the renewal system, it is essential to identify and incorporate potential gaps that may contradict the principles observed in these international experiences. Furthermore, the inclusion of clear measurement indicators is recommended to evaluate the effectiveness and social-environmental impact of such projects.

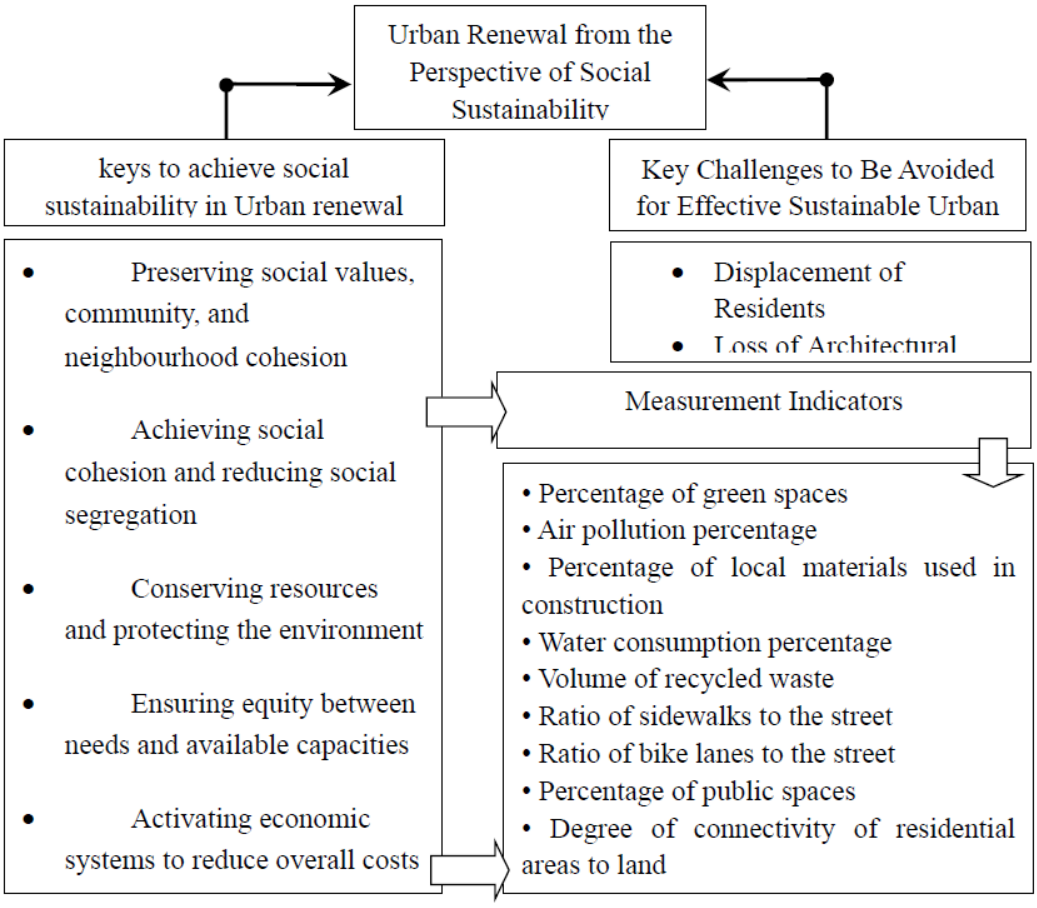

Figure 15. Urban Renewal from the Perspective of Social Sustainability Source: Author

6.1 Key Challenges to Be Avoided for Effective Sustainable Urban

While the keys to achieving social sustainability are essential, it is equally important to avoid practices that undermine these goals. Urban renewal must be sensitive to the socio-cultural fabric and historical identity of the area. The following pitfalls should be actively avoided:

Displacement of Residents: One of the major criticisms of urban renewal is that it often leads to the displacement of low-income residents. The improvement process can result in rising rents, making it difficult for long-term residents to afford staying in their homes. This can lead to the loss of community and social ties, as well as the disappearance of affordable housing options.

Loss of Architectural Heritage: Another unintended consequence of urban renewal was the loss of architectural heritage. In many cases, historic buildings were demolished to make way for new development. This led to the loss of unique and culturally significant buildings that could have been preserved and adapted for new uses. For instance, the demolition of Penn Station in New York City in the 1960s was widely criticized and is now considered a prime example of the negative impacts of urban renewal (Zhang, 2020).

Lack of Community Input: A common criticism of urban renewal projects was the lack of community input. In many cases, decisions about which neighborhoods to redevelop were made by government officials and planners without consulting the communities themselves. This led to feelings of distrust and resentment among residents, who felt that their voices were not heard for example, in the 1960s, residents of Boston's West End protested the demolition of their neighborhood, which they felt was being carried out without their input (City of Boston, n.d.).

6.2 Measurement Indicators

Through these indicators, the efficiency and effectiveness of sustainable urban renewal mechanisms are evaluated. The framework includes measurable variables that assess the extent to which renewal projects achieve social sustainability goals. These indicators include: percentage of green spaces, air pollution percentage, percentage of local materials used in construction, water consumption percentage, volume of recycled waste, ratio of sidewalks to the street, ratio of bike lanes to the street, percentage of public spaces, and degree of connectivity of residential areas to land uses.

Data for these indicators can be obtained from municipal environmental and urban planning reports, census and demographic data, GIS spatial analyses, and local sustainability monitoring systems. These sources provide quantitative and spatial evidence necessary to evaluate the social and environmental performance of renewal projects.

Beyond data acquisition, the indicators carry significant practical implications for community well-being. For example, a higher percentage of green and public spaces enhances mental health, social interaction, and recreation, while improved air quality and reduced water consumption contribute to a healthier urban environment. The use of local materials supports local economies and strengthens cultural identity, whereas greater sidewalk and bike lane

ratios promote mobility equity, encouraging active, inclusive, and environmentally friendly lifestyles.

Moreover, improved connectivity between residential and service areas facilitates access to daily needs, reduces travel time, and enhances quality of life. Collectively, these indicators form an integrated framework linking urban form, environmental performance, and social welfare, ensuring that sustainable urban renewal efforts translate into tangible improvements in community livability and resilience

7. Results

- Urban renewal is broadly understood as a strategic and multidimensional process aimed at revitalizing deteriorated urban areas. It encompasses physical redevelopment, slum clearance, and heritage preservation (Couch, Sykes, & Boerstinghaus, 2011), while also addressing complex socio-economic and environmental challenges through integrated planning and action (Ercan, 2011). Additionally, it involves targeted improvements in both high- and low-density zones, focusing on infrastructure, building conditions, and urban functionality (Ansumant, 2019).
- Urban renewal methods include redevelopment, which involves demolishing and rebuilding areas and often disrupts social ties and increases costs; rehabilitation, which upgrades parts of the urban fabric while preserving social structure and reducing expenses; historical preservation, which protects heritage buildings and allows for adaptive reuse; urban infill, which fills gaps in the urban fabric with visually and functionally integrated buildings; and comprehensive revitalization, which balances preservation, reconstruction, and renewal based on detailed social, economic, and spatial studies (Al-Asasfeh et al., 2007).
- The analysis confirms that sustainability is commonly framed around three dimensions: economic, environmental, and social (Purvis et al., 2019). This study argues that the economic and environmental aspects should ultimately serve the social dimension by addressing community needs. Moreover, active community participation is essential in shaping these dimensions, particularly through urban renewal.
- The analysis results show that social sustainability is a comprehensive evolutionary process aimed at improving quality of life and promoting social justice and cultural identity, by empowering individuals and expanding their choices in various areas (Ricee, 2023; Woodcraft et al., 2012). It is evident that the urban environment plays a pivotal role in enhancing the sense of belonging and social relationships, especially when designed in accordance with the values and aspirations of the residents (Alwah et al., 2023).
- The results indicate that urban renewal can be an effective tool for achieving social sustainability, provided it is implemented within an integrated framework that balances environmental, economic, and social dimensions, and relies on community planning that considers the capacity of natural systems for self-renewal (Bai et al., 2023). Accordingly, achieving social sustainability through urban regeneration requires a set of fundamental social requirements, which are a prerequisite for the success of any urban intervention aimed at sustainable development.

- Based on successful global experiences, a set of keys emerges through which urban renewal can be directed towards achieving social sustainability, including: providing interactive public spaces, cultural programs that reflect local identity, clean transport systems, equitable access to education and technology, securing basic needs, democratic governance and job opportunities, effective community participation, enhancing safety, and social care systems for vulnerable groups.
- Achieving social sustainability is not limited to applying principles of success; it also requires actively avoiding practices that undermine it such as the displacement of residents, the loss of architectural heritage (Kiruthiga & Thirumaran, 2019), and the absence of community participation in decision-making processes (Bain, 2019). Therefore, the success of urban renewal depends on its sensitivity to the socio-cultural fabric and its respect for the historical identity of the place.
- The findings of this study demonstrate the potential to establish an effective framework for achieving socially sustainable urban renewal by applying the core requirements of sustainable community development. This involves activating the key elements and drivers identified in global best practices, while proactively addressing potential gaps that may hinder progress—particularly those conflicting with the social and cultural foundations of urban transformation. It is recommended to incorporate clear measurement indicators to assess the effectiveness and social impact of such projects, thereby ensuring the success and long-term sustainability of the proposed framework.

8. Discussion

The reviewed literature reveals a clear diversity in the concepts associated with urban renewal, ranging from the redevelopment of deteriorating neighborhoods and the complete demolition of old areas to its understanding as a social process aimed at achieving organized transformations in urban character. This conceptual diversity reflects the evolution of urban planning priorities, where the focus has shifted beyond physical infrastructure to encompass broader social and cultural goals.

The literature also affirms that social sustainability is the ultimate objective that economic and environmental dimensions should support, underscoring the importance of empowering individuals and enhancing cultural identity through urban design.

An analysis of successful global experiences highlights a set of key elements that constitute a practical framework for achieving social sustainability in the context of urban renewal. These include interactive public spaces, equitable access to services, democratic governance, and employment opportunities. Studies indicate that the absence of these elements not only diminishes social impact but also contributes to adverse outcomes such as population displacement, loss of architectural heritage, and the erosion of community cohesion.

While the manuscript includes examples from the Barcelona Sants neighborhood and the Katara Cultural Village, the underlying principles and strategies—such as participatory community engagement, inclusive urban design, and social sustainability indicators—are broadly applicable. Cities with different social, cultural, or spatial characteristics can adapt these approaches to strengthen community cohesion, enhance social equity, and promote

resilient urban environments. The focus is on adapting tested mechanisms rather than directly replicating specific cases, ensuring that socially sustainable urban renewal initiatives remain context-sensitive and effective across diverse urban settings.

Although the Katara Cultural Village model relies on formal cultural infrastructure and heritage-based architecture, its core principles—such as reinforcing local identity, providing inclusive public spaces, and fostering community interaction—can be adapted to cities with less formal cultural assets. In such contexts, heritage-focused programming may be replaced with locally driven initiatives or informal cultural activities that reflect community values and activate public spaces. This adaptive approach broadens the applicability of case study and supports socially sustainable urban renewal across diverse urban environments.

Accordingly, the discussion emphasizes that the success of urban renewal depends on a high degree of sensitivity to the social and cultural fabric, as well as respect for the historical identity of place. It is recommended that urban renewal projects adopt participatory and inclusive approaches that are responsive to local contexts, alongside the development of assessment tools that more accurately capture social dimensions.

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Authors contributions

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