Social Sustainability in Urban Areas: Urban **Innovation and Just Cities**

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This paper reviews the literature on urban sustainability with the objective Abstract of drawing more attention to the social aspect of sustainability in urban planning. Given that social capital is a crucial component of moving towards more progressive smart cities and urban innovation, it is important to investigate the social dimension of sustainability and the opportunities that just cities can bring to improve the quality of life for urban dwellers. This paper is divided into three sections. The initial section provides an introduction to urban sustainability, discussing the historical roots of sustainability and sustainable development ideas, the three fundamental elements of sustainability, and the process of defining and measuring sustainability in an urban setting. Moving on to the second section, it delves into the body of work related to linking urban sustainability with urban strategies. The third section finally addresses the emergence of literature on just sustainability and just cities, which can give valuable insights to city policymakers who are trying to improve balanced sustainability.

Social Sustainability, Just Cities, Urban Strategies Keywords

I. Introduction

Our world is now predominantly urbanized, with over half of the global population residing in densely populated urban areas as of 2018 (UN, 2018). Given this increasing urbanization, cities play a pivotal role in shaping a sustainable future, as argued by various authors (Pickett et al., 2001; Farr, 2008; Rees & Wackernagel, 2008; Wheeler, 2013). Presently, cities consume more than two-thirds of the world's energy and contribute to over 70 percent of worldwide greenhouse gas emissions (Birol, 2008; Cities, 2011). While urban development has driven economic growth and prosperity, it has also given rise to numerous environmental and social challenges. As a result, ensuring the sustainability of urban development stands as a critical concern for humanity.

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This work is licensed under a Creative Commons Attribution-NonCommercial 4.0 International License. While cities are increasingly adopting urban sustainability policies and shifting their focus from mere 'development' to 'sustainable development,' the extent to which these plans have genuinely rendered our cities sustainable remains a subject of controversy concerning their economic, environmental, and social dimensions. Kruger and Gibbs (2007) have highlighted that the politics surrounding urban sustainability often prioritize 'pro-growth' considerations in sustainability planning. According to McKendry (2008), urban sustainability planning has sometimes fallen short in adequately addressing environmental and social justice issues, often operating within a market-driven framework.

As the concept of sustainability becomes more deeply entrenched in our society, it's crucial to ask, "Sustainability for whom?" Sustainability also encompasses the imperative of creating a more equitable and just society. The concept of 'Just Sustainability,' as coined by Agyeman, Bullard, and Evans, places emphasis on environmental justice, equity, and civic engagement within the planning process. Many researchers contend that we have limited understanding of how sustainability is put into practice in everyday urban life, particularly with regard to issues of social justice and equity (Isenhour, McDonogh, & Checker, 2015). Furthermore, the concept of smart cities aims to cultivate a more informed, educated, and participatory citizenry, allowing residents to actively engage in urban governance and management. It should start with people achieving a progressive smarty instead of blindly believing that AI or technology may automatically enhance cities (Hollands, 2008). Smart cities function as educational entities, enhancing the global competitive edge of cities within the knowledge-based economy. Therefore, social capital is considered an important component of urban innovation.

This study thoroughly reviews the literature on urban sustainability with the objective of drawing more attention to the social aspect of sustainability in urban planning. Given that social capital is a crucial component of moving towards more progressive smart cities and urban innovation, it is important to investigate the social dimension of sustainability and the opportunities that just cities can bring to improve the quality of life for urban dwellers. This paper is divided mainly into three parts. The initial section provides an introduction to urban sustainability, discussing the historical roots of sustainability and sustainable development ideas, the three fundamental elements of sustainability, and the process of defining and measuring sustainability in an urban setting. Moving on to the second section, it delves into the body of work related to linking urban sustainability with urban strategies. The third section finally addresses the emergence of literature on just sustainability and just cities, which can give valuable insights to city policymakers who are trying to improve balanced sustainability.

II. Urban Sustainability: Origin, definition, and measurement

1. The Origins of the Sustainability and Sustainable Development Concepts

Sustainable development has emerged as a fresh focal point in planning, with the 1987 report "Our Common Future" by the United Nations World Commission on Environment and Development (WCED) presenting a widely accepted definition: "Sustainable development is development that satisfies the current generation's needs without compromising the ability of future generations to meet their own needs" (WCED, 1987, p. 43). The primary objective of sustainable development is to ensure fairness between generations, promoting intergenerational equity. In pursuit of this objective, the commission endeavored to harmonize various societal values to address challenges such as reducing environmental harm, curbing overconsumption, and alleviating poverty. These values are often referred to as the three pillars of sustainable development: the environment, the economy, and equity. The WCED stressed that the traditional economic drive for profit maximization should be balanced with an ecological imperative to safeguard the environment and a social equity imperative to minimize human hardship.

2. The Three Pillars of Sustainability

Sustainability represents a dynamic equilibrium state attained through the responsible management of long-term economic, environmental, and social well-being. The concept of sustainability has arisen from a global political process aimed at addressing the most pressing contemporary needs: (1) the necessity for economic development to combat poverty, (2) the imperative of safeguarding the environment, including air, water, soil, and biodiversity, upon which our collective well-being hinges, and (3) the requirement for social justice and cultural diversity to empower local communities in addressing these challenges (Newman & Kenworthy, 1999).

In planning and urban governance, there is a widely accepted understanding that sustainable development should concurrently address objectives related to the environment, economy, and equity, often referred to as the 'three Es' (Beatley, 1995). This approach is favored for its utility in dealing with the intricate interplay of social and economic conflicts in environmental disputes (Campbell, 1996). Schoolman et al. (2012) argue that sustainability research should integrate these three pillars to fulfill its interdisciplinary aspirations.

While there is a consensus on the three pillars of sustainable development, there are debates about the order of priority among them. Bithas and Christofakis

(2006) contend that environmental sustainability takes precedence over social and economic sustainability. Nevertheless, the practical challenge lies in the fact that economic development often receives the most emphasis when sustainability plans are implemented (Tsenkova, 1999). The equity dimension of sustainability, on the other hand, is perceived as not receiving the same level of attention as the other two (Agyeman & Evans, 2004; Dale & Newman, 2009).

3. Defining Sustainability in the Context of Urban Area

At first glance, sustainability seems like a straightforward concept: both current and future generations should aim to ensure a good quality of life for everyone while staying within the ecological limits of natural systems. Despite its apparent simplicity, there is still no widespread consensus on how to put this concept into action. While virtually no one opposes the idea of sustainability, its practical implementation varies across different fields. Even though there is a broad consensus regarding the three pillars of sustainability – the environment, the economy, and equity – there are differing opinions about which aspect should take precedence. For instance, Fernando (2003) argues that the Brundtland Commission's definition focuses on development and doesn't call for a fundamental departure from the existing market-based economic structure. Daly's notion of steady-state economics (1974) proposes that economic systems should only expand at a rate that natural resources can naturally renew. representing a significant shift in how the environment is valued, as opposed to traditional economic models. Some scholars prioritize environmental sustainability by asserting that it holds primary importance because without it, neither social nor economic sustainability can be achieved (Goodland, 1995; Bithas & Christofakis, 2006).

Nonetheless, there is no unanimous agreement on how to precisely define sustainability, particularly concerning the optimal city size, layout, and spatial distribution of activities that would best promote the responsible allocation of natural resources and minimize environmental effects. Consequently, sustainability is challenging to standardize, and there's no one-size-fits-all definition applicable to all communities. Ecologists approach the impact of urbanization from an ecological perspective, examining how human-dominated ecosystems arise from interactions between humans and ecological processes (Alberti, 2005). In contrast, urbanists often concentrate on social and economic dynamics while giving relatively less attention to environmental concerns (Heynen, Kaika, & Swyngedouw, 2006). However, an increasing argument suggests that the rigid distinction between the city and nature is artificial, as they mutually influence one another. As a result, urban ecologists strive to merge socioeconomic processes with ecological principles and incorporate environmental perspectives into urban planning (Alberti, 2005; Spirn, 1984).

In practical city planning, urban designers consider the interplay between environmental processes and urban design. They place emphasis on factors such as carrying capacity, preserving sensitive lands, and watershed planning (McHarg, 2014; Spirn, 1984; Steiner, 2011). As Roseland notes, "Cities offer vast, untapped opportunities to address environmental challenges, and local governments have both the responsibility and the potential to pioneer innovative approaches to sustainable development and urban management" (Roseland, 1992, p. 22). Scholars recognize cities as places where our practices can have a significant impact on the environment.

4. Measuring Sustainability

An alternative approach to defining sustainability pertains to its measurement. Even though sustainability is inherently multifaceted, there have been diligent attempts to quantify it through the use of indicators. The presence of measurement tools serves a valuable purpose beyond merely defining the concept; it also helps us gauge our advancements toward sustainability, inform the public about prevailing trends, and garner political backing for transformative change.

From an ecological perspective, it is imperative to acknowledge the inherent limitations of ecological systems, which encompass finite boundaries concerning land, water, air, biological diversity, and other aspects of the natural environment. Urban areas and the process of urban development exert substantial ecological impacts. While environmental protection and conservation have long been topics in urban planning (McHarg, 2014), what distinguishes the current approach is the heightened commitment and emphasis on honoring these ecological constraints in the planning process.

Williams Rees (1992) introduced an essential tool, the ecological footprint, to gauge the resources required to sustain humanity's demands on the Earth. The notable strength of ecological footprint analysis lies in its conceptual simplicity, enabling us to visualize the repercussions of unsustainable economic practices on the planet. Within this context, ecological footprint analysis offers a means to compare the relative efficacy of different urban development patterns and transportation technologies in mitigating urban ecological impacts. For example, Lyle Walker (1995) demonstrated that higher population density associated with high-rise apartments, as opposed to single-family houses, substantially reduces the aspects of the per capita ecological footprint linked to housing type and urban transportation. Alberti (1999) similarly employs the concepts of carrying capacity and ecological footprint to investigate environmentally sound urban configurations. Consequently, there is a critical need for international consensus on the preservation of nature and natural resources, recognizing the shared natural capital from a comprehensive perspective to advance sustainability

(Rees & Wackernagel, 2008). In addition to this conceptual ecological footprint analysis, estimating the value of ecosystem service has been widely employed to help create an incentive for people to sustain the ecosystems and the services they provide. It is because the services may be undervalued without those measures of ecosystem services, and it may be challenging to assess needed funding for sustainable management of these resources in practice.

Indicators serve as valuable tools for monitoring changes over time, enabling comparisons, and helping stakeholders with varying objectives remain focused on their daily tasks (Rusk, 2009). They effectively condense the necessary data for providing a comprehensive picture of a situation and facilitate communication with diverse audiences (Keirstead & Leach, 2008). While there is no universally agreed-upon set of sustainability indicators that covers all aspects, timeframes, and levels (Mitchell, 1996; Pope, Annandale, & Morrison-Saunders, 2004), numerous efforts have been made to employ indicators in the assessment of sustainability in urban areas.

A notable set of indicators has been established by the United Nations, which is grounded in the three dimensions of sustainable development. While environmental concerns were initially addressed in "Our Common Future" in 1987, subsequent concerns were elaborated upon in the 40 chapters of "Agenda 21" during the Earth Summit in 1992. The third dimension of sustainable development, which focuses on enhancing global social development, gained prominence at the World Summit on Social Development in Copenhagen in 1995 (United Nations, 1995), and at the World Summit on Sustainable Development in Johannesburg in 2002 (United Nations, 2002). The social pillar also received significant attention in "The Future We Want," the outcome document of the Rio+20 conference in 2012 (United Nations, 2012).

The concept of global goals, accompanied by concrete indicators, was officially introduced for the first time at the Rio+20 Conference. These Sustainable Development Goals (SDGs) represent a universal set of objectives, targets, and indicators that UN member countries will use to shape their agendas and policies over the next 15 years. Currently, the SDGs encompass 17 goals, 169 targets, and 231 indicators. The UNSDG indicators cover various aspects, including water usage, product life cycle, carbon footprint, carbon dioxide emissions during transportation, and more.

Turcu (2013) devised a series of sustainability indicators that combine the expertise of professionals with the insights of the general public, thereby reflecting both established standards and community values. This approach has inspired numerous researchers to conduct sustainability assessments using indicator sets for various neighborhoods, regions, and urban systems across the globe (Huang, Wong, & Chen, 1998; Mcalpine & Birnie, 2005; Moreno Pires, Fidélis, & Ramos, 2014; Mansourianfar & Haghshenas, 2018). In "Taking Sustainable Cities Seriously," Portney (2003) offers a comprehensive

examination of how 24 cities in the United States have embraced the concept of sustainable urban development. He has crafted a set of 24 indicators specifically designed for measuring sustainability. This book contains extensive data pertaining to pollution levels, energy management, transportation, land use, and the initiatives for social sustainability. While Portney doesn't present rigorous theoretical frameworks for variable selection, his findings underscore the fact that numerous U.S. cities are actively pursuing sustainability initiatives. Moreover, his research highlights the importance of community input in formulating plans that effectively enhance the environment.

Nonetheless, there are disadvantages associated with the use of indicators. Critics raise concerns about the highly subjective nature of the selection process, which may reflect the specific concerns of particular stakeholders (Astleithner & Hamedinger, 2004; Gahin, Velena, & Hart, 2003). Some argue that indicators are chosen for their ease of measurement and policy relevance rather than their inherent sustainability (Keirstead & Leach, 2008). Instead of prescribing specific sustainability indicators, Maclaren (1996) suggests a procedural approach for developing urban sustainability indicators and generating sustainability reports. Alberti (1996) also explores how to structure the indicator selection process to ensure that the collected information is both policy-relevant and scientifically grounded, readily applicable, and useful for planning, with a focus on the indicator development process. This approach emphasizes the use of sustainability as a framework rather than focusing solely on the final outcomes.

III. Connecting Urban Sustainability to Urban Strategy

1. Urban Revitalization and Sustainability

A substantial body of literature delves into the interconnected relationship between discussions on urban revitalization and urban sustainability. Urban revitalization, smart growth, and new urbanism play pivotal roles in addressing urban sprawl and promoting economic and environmental sustainability (Katz, 1994; Daniels, 2001; Gillham, 2002). Scholars have contended that sprawling urban and suburban development patterns have adverse effects, including habitat fragmentation, loss of open space, water and air pollution, elevated infrastructure costs, inequality, and social homogeneity (Ewing, 1997; Downs, 1999).

In contrast, higher-density development with a mix of land uses is viewed as a means to encourage smaller living spaces, subsequently leading to reduced consumption rates, while also making walking, cycling, and public transit viable alternatives to cars (Jacobs, 1961; Owen, 2009). Thus, curtailing urban sprawl and augmenting population density within mixed-use communities are considered efficient ways to diminish consumption and lower energy usage (Dagger, 2003). Researchers have additionally observed that carbon footprints in suburban areas in the United States tend to be higher than those in urban areas (Glaeser & Kahn, 2010). Consequently, there is a shared argument that urban revitalization plays a central role in steering future cities toward greater sustainability in the United States.

Going beyond the notion of halting urban sprawl to create sustainable regions, sustainability has also been proposed as a potential solution for addressing urban decline. Urban revitalization is an approach aimed at resolving various urban issues, such as the decline in urban functionality, social exclusion within urban areas, and environmental pollution. It offers a robust strategy to boost property values, enhance environmental quality (Adams & Hastings, 2001), mitigate urban decay, and fulfill diverse socio-economic objectives (Lee & Chan, 2008). Notably, urban revitalization enhances the quality of housing and community well-being (Krieger & Higgins, 2002), and it optimizes the use of land resources within cities. From this perspective, urban revitalization can make a significant contribution to fostering sustainable urban development.

However, it's essential to note that many urban regeneration policies have primarily focused on economic regeneration rather than addressing environmental and social revitalization (Couch & Dennemann, 2000). Moreover, numerous studies argue that an exclusive focus on the physical built environment overlooks social concerns and policy processes (Neuman, 2005; Nallathiga, 2008). Thus, while the relationship between sustainability and urban renewal is intricate, it does provide a pathway toward a sustainable urban future.

2. Selective Sustainability and Green Washing Strategies

Certain scholars expressed skepticism about whether urban sustainability planning in U.S. cities challenges or reinforces prevailing power imbalances within urban areas. Rob Krueger and David Gibbs (2007) introduce a critical query: How can we pursue sustainability within the confines of the existing capitalist system? They highlight that the politics of sustainability assume a vital role in the sustainability process, where political realities tend to prioritize economic development. This implies that the effectiveness of sustainability initiatives, particularly in terms of their environmental and social dimensions, might be closely linked to how well they can articulate the integration of these environmental or social endeavors with distinct economic objectives.

Some argue that urban sustainability planning fails to adequately address issues of environmental and social justice and operates within a framework of neoliberalism, which involves restructuring both public and private sectors to

advance a growth-centric approach to urban transformation (Campbell, 1996; McKendry, 2008). This has led to growing pressures on protected open spaces, the dumping of regulatory responsibilities, elevated consumption levels, and detrimental environmental consequences, often at the expense of less affluent residents and communities. Given the prevailing trend where the concept of sustainability has become deeply ingrained in our society, it becomes imperative to meticulously scrutinize the various components of the sustainability concept (Isenhour, McDonogh, & Checker, 2015).

Bloomberg's "PlaNYC: A Greener, Greater New York," unveiled in 2007, serves as a notable illustration of selective sustainability. The initiative advocates sustainable objectives, such as expanding affordable housing, enhancing park accessibility, and reducing citywide carbon emissions by 2030. Nevertheless, there are critical voices suggesting a certain incongruity between the plan's objectives and the city's redevelopment strategies. For example, Mason (2013) highlights that New York City endorsed extensive redevelopment projects that resulted in the removal of hundreds of existing trees, while the plan included a commitment to planting one million street trees by 2030. Rosan (2012) observed that PlaNYC did not comprehensively address environmental justice concerns, even though it marked significant initial steps in advancing environmental justice through sustainability planning.

Some literature delves into the gentrification processes triggered by green urban development practices (Anguelovski, 2014; Checker, 2011). For example, in Portland, the creation of green spaces catered to specific upscale notions of 'livability' while displacing low-income housing in the area (Hagerman, 2007). Furthermore, the climate change plans of three major U.S. cities fail to adequately address concerns related to equitable economic development and environmental justice (Finn & McCormick, 2011). Consequently, sustainability emerges as a prevailing framework, as seen in Bloomberg's efforts to position New York City as a leading contender in the global competition among cities striving to enhance their sustainability. These initiatives often concentrate on appealing aspects like green public spaces and climate change mitigation. However, they tend to overlook issues of environmental justice. This complex relationship between sustainable policies and inequitable urban redevelopment becomes more problematic as cities vie to become competitive global hubs.

IV. Just Sustainability and Just Cities

Crucially, we must inquire about sustainability for whom? Sustainability also entails the creation of a more equitable and fair society. When looking at the overall urban landscape in the United States, it raises concerns about social justice and equity. The perpetuation of urban sprawl and suburbanization has led

to the stark isolation of low-income individuals and minority populations (Goldsmith & Blakely, 2010; Downs, 1999). Land use patterns have segregated communities based on income and race, resulting in an unequal distribution of opportunities (Downs, 1999; Jackson, 1987).

A sustainable city is one where diversity is actively encouraged, where there is no pronounced spatial separation or isolation of income and racial groups, where all individuals and communities have equal access to vital services and facilities, and where residents enjoy a fair and equal opportunity (Beatley, 1993). Balancing the underlying tension among the three dimensions of sustainability - environmental, social, and economic - is imperative.

A substantial body of literature is dedicated to the intersection of social justice and urban sustainability. Agyeman, Bullard, and Evans (2002) introduced the term 'just sustainability,' emphasizing the imperative to secure a higher quality of life for all, both in the present and the future, in an equitable and fair manner while staying within the ecological limits that support our ecosystems (Agyeman, Bullard, and Evans 2002, p. 78). Although many city plans are now incorporating the social facet of sustainability, particularly equity, Agyeman has highlighted that equity often does not receive the primary focus in sustainability plans (Agyeman, 2004).

Furthermore, scholars argue that our understanding of how sustainability is put into practice in the daily life of cities, especially concerning issues of social justice and equity, remains relatively limited (Isenhour, McDonogh, & Checker, 2015). Hess and Winner (2007) conducted a study involving 30 case studies on urban sustainability, exploring instances where cities addressed environmental justice by leveraging urban greening to advance social justice objectives. However, they note that many urban sustainability initiatives fail to make social justice a central concern, and even when social justice is explicitly mentioned in plans, there often remains ambiguity about the most effective means of promoting it. These areas of concern represent a departure from the predominant focus on 'economic sustainability' and 'environmental sustainability,' advocating for a concept termed 'just sustainability.' This perspective adopts a balanced approach that places equal emphasis on justice, equity, and the environment as interconnected components.

V. Conclusion

This paper has offered a review of the literature on urban sustainability, with a particular emphasis on the necessity to place greater emphasis on social justice and equity considerations in sustainability planning. Following an examination of the development of the sustainability concept within the context of urban strategies, this paper contends that numerous urban sustainability initiatives

selectively incorporate the concept of sustainability into the urban discourse, often omitting the vital dimensions of social justice. It underscores the fact that sustainability cannot be exclusively centered on environmental concerns, thereby highlighting the imperative to address social justice issues comprehensively in sustainability planning.

In addition, the force of globalization consistently affects urban sustainability planning in global cities, refurbishing deteriorated urban areas to boost property values under the name of 'green' projects. Urban revitalization initiatives often play a pivotal role in promoting a city on the global stage. The metropolitan authorities aim to enhance the city's economic competitiveness and its global allure. The competition among cities significantly influences their urban policies, as cities strive to position themselves favorably in comparison to other urban centers by marketing themselves to attract potential investors and visitors. Consequently, city marketing has become an integral component of competitive urban policies, presenting the city as a destination offering favorable business environments for investors and enjoyable experiences for visitors (Smith, 2005).

While cities do reap certain benefits, such as economic growth, job opportunities, and an improved quality of life, by drawing in foreign investments and tourists, there is mounting evidence demonstrating the uneven distribution of these benefits (Perrons, 2004). A key objective of city marketing is to "create a fresh perception of the city to replace previous vague or negative images held by current or potential residents, investors, and visitors" (Holcomb, 1993, p. 133), as cities are increasingly adopting branding practices. The emphasis here lies in reshaping the city's image and redefining its significance. However, the symbolic reconstruction of cities as a tool for competitive urban policy also represents a new form of social and political influence, contributing to growing social disparities and the curtailment of political rights within cities (Cho, 2010). While, Jonas and Gibbs (2004) argue that the metropolitan authorities aim to enhance the city's image through the implementation of sustainability policies.

At first glance, the 'growth-first' ideology may appear to be at odds with the fundamental principles and actions associated with urban sustainability, such as recognizing ecological constraints, ensuring intergenerational fairness, integrating economic, social, and environmental priorities, and expanding public involvement in decision-making. Nevertheless, urban leaders often find themselves with little choice but to prioritize the promotion of their cities in order to attract increased global investments, even if it comes at the expense of broader social and ecological objectives. Environmental initiatives, such as revitalizing riverfront areas, rejuvenating former industrial sites, or investing in eco-friendly public transportation, have not only played a significant role in reshaping the image of cities but have also been influential in reinvigorating urban areas to attract fresh investments and reviving the city's middle-class population or stabilizing working-class communities (Keil & Desfor, 1996).

Unfortunately, urban revitalization initiatives that yield immediate, eyecatching outcomes are often favored and championed by numerous politicians and officials. In contrast, an urban sustainability plan should be developed with a long-term perspective to truly fulfill its original objectives. Undertaking urban sustainability projects within the confines of electoral cycles creates a hindrance to a city's sustainability and poses a substantial risk to its overall viability. This inclination underscores the need for a shift in the political landscape of urban sustainability planning. Rather than treating urban policy as a means to showcase a politician's accomplishments, there's a growing need for more deliberate, process-driven approaches to advance comprehensive sustainability in urban sustainability planning.

With the mounting pressure on global cities to embrace sustainability, there is an increasing body of evidence pointing to the gentrification process resulting from environmentally-friendly practices in urban planning (Anguelovski, 2014; Checker, 2011). This conflicting relationship between sustainable policies and unequal urban redevelopment becomes even more complex as ongoing climate change exacerbates social disparities, rendering low-income individuals more vulnerable to the growing frequency of natural disasters.

In line with the emphasis placed by Agyeman, Bullard, and Evans (2002) on the social dimension of sustainability, stating that "A truly sustainable society is one where the broader considerations of social needs and welfare, along with economic opportunities, are closely intertwined with the environmental constraints imposed by the supporting ecosystems" (Agyeman et al., 2002, p. 78), it becomes imperative to adopt a more balanced approach through the framework of 'just sustainability.' Consequently, urban practitioners must place greater emphasis on the social facets of sustainability, giving due attention to social justice, equity, and civic involvement within the realm of urban planning. Furthermore, this study underscores the need for further research into 'just sustainability' with a particular focus on the social elements of sustainability in contemporary cities in the future.

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