



Comparing Urban Qualities: A City Livability Framework Applied to Jakarta and Nusantara Capital City

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Abstract

This research develops a systemic framework for analysing urban livability by applying the DPSIR (Drivers, Pressures, States, Impacts, Responses) model to the contrasting cases of Jakarta, Indonesia's established megacity, and Nusantara Capital City (IKN), the planned new capital. Through a systematic literature review and comparative case analysis, we move beyond static indicators to reveal the dynamic causal mechanisms shaping livability. The findings indicate that Jakarta's unmanaged organic growth has established a negative feedback loop of uncontrolled urban intensity, resulting in three interrelated consequences: significant environmental deterioration, substantial economic losses from persistent congestion, and compromised resident wellbeing. In contrast, IKN's "Forest City" plan represents a comprehensive attempt to integrate density, Diversity, access, and Form from the outset. However, this planned approach is risky. If neighbourhoods lack lively shops and services, people may not use the excellent public transit. Also, if new development makes housing too expensive, it could push out the very people the city is meant to serve. The DPSIR framework proves invaluable for diagnosing these complex interdependencies, offering a practical tool for anticipatory governance. The comparative analysis underscores that creating livable cities requires managing entire causal pathways through integrated, adaptive policies rather than pursuing isolated interventions. This research provides critical insights for Indonesian urban policy and contributes a robust analytical approach to the global pursuit of cities that balance development with human dignity and resilience.

Keywords: *DPSIR Model, Livable City, Nusantara Capital City, Systemic Framework, Urban Quality.*

1. Introduction

The global pursuit of sustainable urban development faces persistent challenges in balancing growth with quality of life. Cities worldwide struggle to reconcile economic ambitions with environmental protection and social equity, often achieving progress in one dimension at the expense of others [1][2]. Indonesia's contemporary urban transition offers a critical research context for examining fundamental tensions between developmental and sustainability objectives. The nation's parallel development of two distinct capital cities, the established megacity of Jakarta and the planned forest capital Nusantara (IKN), creates a unique opportunity for comparative analysis that transcends theoretical debate [3][4][5].

Jakarta represents the archetype of organic urban concentration driven by economic imperative [6][7]. For decades, the city has served as Indonesia's primary engine of growth, attracting millions seeking economic opportunity and social mobility [8][9]. This magnetic pull has created a metropolitan region of astonishing scale and complexity, characterized by intense commercial vitality and cultural dynamism. Yet these achievements have come at considerable cost to human wellbeing and environmental health, as economic success undermines living conditions.

The city's developmental path has generated severe pressures on infrastructure, ecosystems, and social cohesion. Chronic traffic congestion consumes productive hours and diminishes economic competitiveness, while air and water pollution pose direct threats to public health [10][11][12]. The urban fabric starkly contrasts modern commercial districts with underserved neighbourhoods, reflecting deep spatial inequalities. Most significantly, the scarcity of restorative public spaces and the relentless pace of urban life contribute to mental strain and social fragmentation among residents [13].

Recognizing these challenges, Indonesia has embarked on an unprecedented urban experiment with the creation of Nusantara Capital City (IKN) in East Kalimantan [14]. Conceived as a "Forest City," this new capital represents a conscious effort to redefine urban development through integrated planning [15]. The master plan positions human wellbeing and ecological harmony as central objectives rather than secondary considerations. This marks a fundamental shift from reactive problem-solving to proactive design, aiming to preempt the livability crises that characterize many rapidly growing cities [16].



The IKN vision advocates principles such as seamless access to nature, walkable neighbourhoods, and integrated social infrastructure [17][18][19]. Rather than treating sustainability as a technical challenge, the approach embraces it as a holistic concept encompassing environmental, social, and economic dimensions. The planned city seeks to demonstrate how density, Diversity, and ecological sensitivity can coexist synergistically. This ambitious undertaking reflects growing recognition that urban futures must be intentionally shaped rather than left to market forces alone.

However, creating truly livable urban environments resists simplistic solutions and standardized formulas. Historical experience demonstrates that cities can meet technical sustainability benchmarks while failing their citizens through unaffordable housing, social exclusion, or cultural homogenization. Livability emerges not from any single planning doctrine but from the dynamic interplay of thoughtful urban Form, equitable access, cultural vitality, and institutional commitment to justice. These complex interactions require frameworks that capture systemic relationships rather than isolated metrics.

This research addresses precisely this complexity by developing and applying a systemic analytical framework to assess urban livability. The research synthesizes international scholarship to construct a comprehensive model, which is then applied to the contrasting cases of Jakarta and IKN. Through a comparative analysis of a mature metropolis retrofitting for livability and a new city designed from the ground up, the research illuminates practical challenges and opportunities in Indonesia's urban transition. The findings aim to inform both national policy and global urban discourse, contributing to the fundamental question of how to create cities that are not only efficient and productive but also nurturing, equitable, and resilient.

2. Methods

This research adopts a mixed-methods approach to investigate urban livability, combining systematic literature analysis with comparative case research. The methodological design was specifically developed to capture both theoretical concepts and practical manifestations of livability in diverse urban contexts. The research employed an adapted DPSIR (Drivers, Pressures, States, Impacts, Responses) framework to analyze the complex socio-ecological interactions within urban systems [20][21]. This analytical model was specifically modified to capture the dynamic relationships between urban development processes and livability outcomes. The adaptation enabled systematic examination of causal pathways linking policy interventions to their ultimate effects on urban quality of life. The framework's structured approach facilitated identification of critical leverage points for enhancing urban livability while maintaining analytical rigor across comparative case studies [22]. This approach enabled us to trace causal pathways while maintaining sensitivity to contextual particularities across different urban environments [23].

A systematic review of peer-reviewed literature was conducted to map the current scholarly discourse on urban livability. The search encompassed publications from 2017 to 2025 in the Scopus and Web of Science databases, using key terms related to "urban livability," "quality of life," "sustainable development," and "spatial equity." Following a rigorous screening process based on predefined inclusion and exclusion criteria, 64 articles were selected for in-depth analysis. Thematic analysis was subsequently employed to identify and categorize recurrent themes, conceptual frameworks, and dominant methodologies within the literature. This systematic approach enabled a comprehensive synthesis of the evolving intellectual structure of urban livability research.

The research investigates two contrasting Indonesian urban contexts: Jakarta, an example of organic metropolitan development, and Indonesia's new capital (IKN), a case of planned urban development. We conducted extensive document analysis of official spatial plans, development studies, and environmental assessments for both cities. This methodological strategy enabled direct comparison between existing urban conditions and planned urban aspirations. The documentary evidence provided rich qualitative data about how livability concepts translate into urban policies and designs.

The DPSIR model examines the causal chain from underlying Drivers through Pressures and States to Impacts and societal Responses. Drivers include fundamental forces like urbanization trends and sustainability commitments, while Pressures manifest through changes in key urban dimensions. The framework proved particularly valuable for understanding how policy decisions generate ripple effects throughout urban systems.

Urban pressures translate into tangible conditions through four interconnected livability dimensions that structure daily urban experience. Intensity captures concentrations of people and activities, while Diversity reflects the variety of urban functions and social composition. Access encompasses both spatial proximity and transportation connectivity, and Form describes the physical organization of urban space. These dimensions collectively influence three core components of the urban system: People (demographic and social dynamics), Built Structures (physical infrastructure), and Nature (environmental assets). These elements exist in constant interaction, forming the essential fabric of urban life. Their configuration produces distinct urban states that either support or hinder livability objectives. Understanding these interactions required examining both the individual components and their synergistic relationships.

The urban system generates impacts through cascading primary and secondary effect pathways. Primary impacts directly influence sociocultural, environmental, and economic conditions, while secondary impacts affect health, quality of life, justice, and urban adaptability. These impact pathways feature complex feedback loops that continuously reshape urban states. Our analytical approach specifically accounted for these non-linear relationships, acknowledging that urban livability emerges from dynamic systemic interactions rather than static conditions.

3. Result and Discussion

The literature search and selection process followed a structured, multi-stage screening protocol to ensure both relevance and rigor. Beginning with initial searches across the Scopus and Web of Science databases, the pool of potential studies was progressively refined. This involved an initial review of titles and abstracts, followed by a thorough full-text assessment, culminating in the final inclusion of 64 articles. This layered approach was designed to systematically identify high-quality research that directly contributed to the study's focus on urban livability.

Clear inclusion and exclusion criteria guided the selection of these articles. To be considered, publications needed to explicitly address the core themes of urban livability, quality of life, or sustainable urban development within the timeframe of 2017 to 2025. Furthermore, only peer-reviewed articles published in English and offering either empirical findings or applicable conceptual frameworks were included. This

deliberately excluded non-peer-reviewed works, studies unrelated to an urban context, and duplicate publications, ensuring the analysis was built upon a solid foundation of credible and pertinent scholarship.

Finally, the selected literature was manually analyzed using a hybrid inductive-deductive approach. While the study's guiding DPSIR framework informed the initial coding structure, the process remained open to emergent themes from the texts themselves. This allowed recurrent concepts to be organically identified and subsequently categorized into key analytical dimensions, such as accessibility, density, equity, environmental quality, and governance, providing a nuanced understanding of the discourse on urban livability.

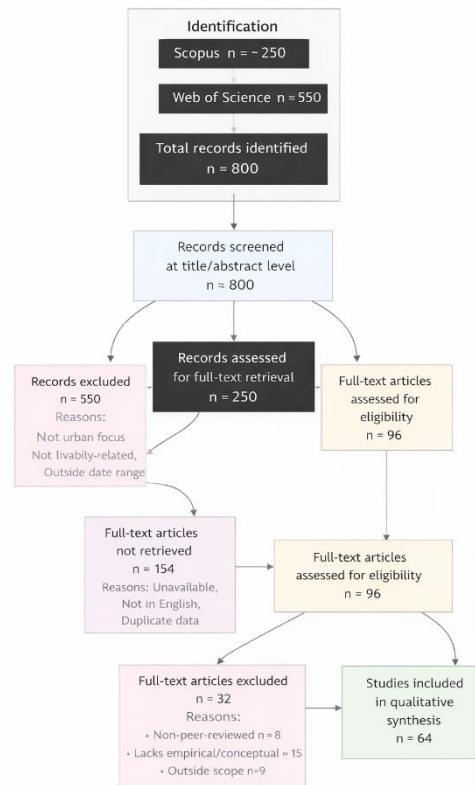


Fig 1. Systematic review process flowchart

A systematic analysis of 64 peer-reviewed publications reveals distinct patterns in how contemporary scholarship conceptualizes urban livability. The literature emphasizes the systemic relationships between built environment characteristics and quality-of-life outcomes, with particular focus on accessibility and neighbourhood functionality. Research consistently identifies benefits of people-centred urban design, including enhanced social interaction, improved health outcomes, and strengthened community cohesion. These advantages are frequently associated with urban environments that prioritize human scale through pedestrian-oriented neighbourhoods and integrated public spaces. The emerging consensus suggests that neighbourhoods that provide accessible amenities and diverse housing options significantly contribute to resident wellbeing and urban vitality.

However, this scholarly consensus regarding potential benefits exists alongside robust documentation of significant negative trade-offs. The same intensification processes that yield environmental benefits often pose substantial challenges to residents' quality of life—multiple studies document overcrowding in public spaces and residential areas when population density outpaces infrastructure capacity. Furthermore, the economic implications of intensification often include housing affordability crises as property values rise in desirable, accessible areas, while simultaneously reducing residents' private outdoor space.

A noteworthy finding from the systematic review concerns the relative neglect of certain critical livability dimensions within the current literature [24][25][26][27][28]. Themes of public health and urban adaptability emerged as significantly underdeveloped areas despite their fundamental importance to sustainable urban futures. While some researchers have documented health benefits through increased physical activity in walkable neighbourhoods, far fewer have investigated the psychological impacts of dense urban living. The complex relationships between urban form, chronic stress, and mental wellbeing remain particularly underexplored despite their profound implications for quality of life.

The dimension of urban justice received considerable attention, but primarily through a specific lens: housing displacement and economic exclusion. Numerous studies meticulously document how intensification policies can accelerate gentrification processes, disproportionately affecting vulnerable communities [29][30][31]. This focus, while crucial, has somewhat overshadowed other critical justice considerations such as distributive equity in access to green infrastructure or environmental burdens. The literature suggests that without deliberate policy interventions, the very urban models that promise sustainability may inadvertently reproduce or even exacerbate existing social inequalities, creating cities that are environmentally efficient yet socially divided.

3.1. Case context findings: Jakarta vs IKN

Applying the framework to the Indonesian cases reveals a stark contrast in how livable city qualities are realized. Table 1 illustrates the stark contrast in urban conditions and aspirations between Jakarta and IKN across five critical dimensions, highlighting the divergent outcomes of organic growth versus planned development.

Table 1. Comparative application of the livability framework to Jakarta and IKN across five dimensions

Dimension	Jakarta (Organic Growth)	IKN (Planned Development)
Built Infrastructure	Characterized by hyper-density [32][33], overcrowded and informal settlements [6], inadequate public transit [34][35][36], and car-centric road networks [37]. Infrastructure development often lags behind population growth [38][39].	Planned for moderate, transit-oriented density with integrated public transport [40][41], walkable neighbourhoods, and modern utilities. Aims for infrastructure that anticipates and guides growth [14][42][43].
Environment	Severe environmental degradation [44]; chronic air and water pollution, significant urban heat island effect, and loss of green space due to unchecked sprawl [32][45]. High vulnerability to flooding [45][46][47].	Designed as a "Forest City" with embedded green-blue infrastructure [41][48]. Aims to preserve ecosystems, enhance biodiversity, and use nature-based solutions for climate resilience [49].
Quality of Life	Diminished by extreme traffic congestion (long commutes) [37][50], limited and unequal access to public amenities, and stark socio-spatial segregation [51]. Livability is often a privilege [7][52].	Aspires to a high quality of life through the "15-minute city" concept [28][53], ensuring proximity to schools, healthcare, and retail. Aims for community-centric neighbourhoods with abundant public spaces [43].
Mental Health	Urban life is a significant stressor, with mental health impacted by noise pollution, lack of restorative spaces, daily commute burdens, and the intense pressures of competitive urban living [54][55].	Designed to promote mental wellbeing through access to nature, walkable and less stressful environments, and community-oriented design that fosters social connection and reduces isolation [56][57].
Sustainability	Follows a reactive model; sustainability measures (e.g., MRT, flood canals) address crises but struggle with systemic issues like resource consumption, emissions, and social inequity [33][58].	Embodies a proactive model of sustainable development, targeting net-zero emissions, circular resource management, and social equity from the outset [59][60]. It faces risks of not achieving its planned social and functional mix [42].

The comparative analysis conducted in this research reveals fundamentally divergent pathways in urban development, with Jakarta and Indonesia's new capital city IKN representing contrasting paradigms of urban livability. This divergence provides valuable insights into how different planning philosophies and governance approaches ultimately shape the quality of urban life [61]. While Jakarta exemplifies the challenges of organic, market-driven urbanization, IKN embodies the ambitions of comprehensively planned urban futures [5][19]. The stark differences between these two models offer critical lessons for urban policymakers worldwide who grapple with similar tensions between economic development and resident wellbeing [62][63]. Understanding these contrasting approaches is essential for formulating more effective urban strategies in rapidly developing regions.

Jakarta's urban landscape demonstrates the consequences of a condition where high population and building densities develop without corresponding investments in supporting urban systems [32][33][39]. This pattern emerges when urban growth is driven predominantly by economic imperatives, with inadequate consideration for human wellbeing and environmental sustainability [56]. The city's development trajectory shows how, when market forces are insufficiently guided by comprehensive planning, they can produce urban forms that prioritize economic functions over human needs. The resulting urban fabric exhibits significant deficiencies in public space provision, environmental quality, and social infrastructure, collectively undermining livability.

The fundamental pathology in Jakarta's urban system lies in the critical misalignment between its intensive development patterns and the supporting urban structures necessary for sustainable living. The city's dense urban concentrations lack the functional Diversity [64], efficient transportation networks [50][65], and integrative urban forms needed to transform mere density into vibrant, livable communities [66]. Instead of creating walkable, mixed-use neighbourhoods, this imbalance results in severe environmental degradation through air and water pollution, chronic traffic congestion with substantial economic costs, and pervasive sociocultural stress from urban overcrowding. These problems are not isolated issues but interconnected symptoms of a system where urban dimensions work at cross-purposes rather than in concert. The Jakarta case illustrates how uncoordinated urban development can create self-reinforcing cycles of deterioration in livability.

In direct contrast, IKN's planning framework represents a comprehensive attempt to integrate all key urban dimensions systematically from the city's inception. The envisioned model strategically combines moderate density with high functional Diversity and deep ecological sensitivity [42][67], reflecting a sophisticated understanding of how different urban elements interact to create sustainable communities [41][68]. This approach appears consciously designed to avoid Jakarta's pitfalls by carefully considering how intensity, Diversity, access, and Form can work synergistically rather than antagonistically. The planning documents reveal an awareness that successful urban environments require not just individual well-designed components but their thoughtful integration into a coherent whole [61]. This

represents a significant advancement in urban planning methodology for the Indonesian context and, potentially, for rapidly urbanizing regions globally.

The IKN model holds considerable promise for achieving synergistic outcomes across environmental [69], economic [69], and social domains through its proactive, livability-centred planning approach [43]. By positioning human wellbeing as a central objective rather than an afterthought, it marks a departure from Jakarta's reactive development pattern, in which livability considerations typically emerge only in response to crises [39][58]. The planned integration of natural systems with built infrastructure suggests the potential to create more restorative urban environments that actively contribute to resident health and ecological sustainability [39][42][58]. Furthermore, the emphasis on social mixing and equitable access represents an ambitious attempt to address the spatial inequalities that plague many contemporary cities. These aspects demonstrate how comprehensive planning can reconcile objectives that are often contradictory in conventional urban development.

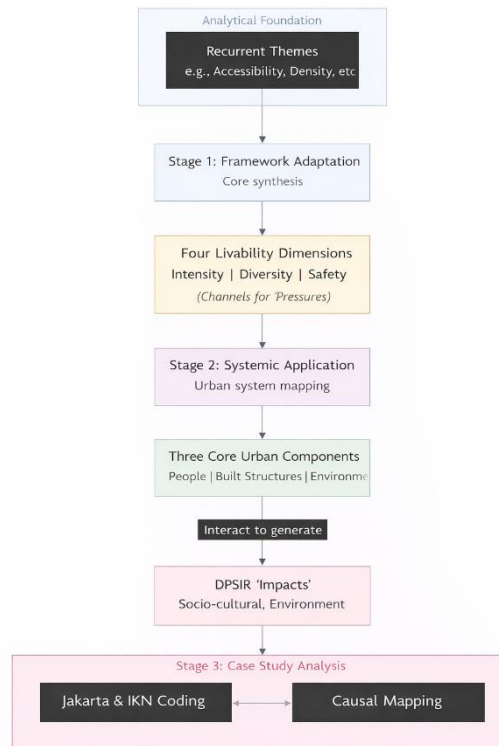


Fig 2. Urban livability research process towards DPSIR analysis

Fig. 2 explains the process, which began with a thorough extraction of all livability-relevant information from the collected documents for each city, including official plans, academic studies, and impact assessments. Subsequently, this extracted data was thematically mapped onto the core constructs of our adapted framework. The categorized information was then organized into coherent causal narratives structured according to the DPSIR model. Finally, the completed DPSIR chains for both cities were placed side by side for comparative synthesis. This juxtaposition enabled us to diagnose the reinforcing feedback loops underlying Jakarta's livability challenges and to prospectively identify critical implementation risks and potential leverage points within IKN's master plan.

However, our analysis identifies several systemic implementation risks that could undermine IKN's livability objectives despite its sophisticated planning framework. The success of its mixed-use neighbourhoods depends critically on commercial and civic functions integrating organically with residential areas, without which the city could experience "dormant neighbourhood" phenomena during non-working hours. Similarly, the transit-oriented design might paradoxically foster private vehicle dependence if public transportation fails to achieve sufficient coverage, frequency, and affordability from the beginning. Most critically, without robust housing policies and vigilant governance, market forces may undermine social-mixing objectives, excluding essential workers and lower-income residents from well-located neighbourhoods. These risks could highlight the complex challenge of translating ambitious urban visions into lived reality and underscore the necessity of adaptive governance mechanisms throughout the implementation process.

3.2. DPSIR analysis: Pathways to urban livability in Jakarta and IKN

The application of the DPSIR framework to Indonesia's urban development reveals a critical divergence between organic and planned approaches to creating livable cities. Analysis demonstrates how this systematic approach effectively maps the causal pathways connecting policy drivers to tangible livability outcomes across different urban contexts. In examining Jakarta's development trajectory, the framework reveals how reactive planning cycles yield diminishing returns for residents [70] despite economic growth [43], [48]. Conversely, when applied to IKN's master plan, the same framework serves as both predictive tool and early warning system for potential implementation challenges. The stark contrast between these two models provides valuable insights into how governance structures and planning philosophies fundamentally shape urban quality of life. This methodological approach represents a significant advancement in urban studies by providing a structured way to analyze complex urban systems.

Jakarta's urban landscape exemplifies how uncontrolled organic growth generates self-perpetuating cycles of deterioration in livability [44], [71]. The city's development has been primarily driven by economic centralization and rapid migration, creating pressures that consistently overwhelm urban systems' capacity to adapt. These pressures manifest physically through overcrowded neighbourhoods, fragmented transportation networks, and haphazard spatial expansion lacking coherent planning. The built environment reveals a clear prioritization of commercial interests and vehicular movement over human needs and pedestrian comfort [72]. The natural environment

has been particularly marginalized, with green and blue spaces becoming scarce commodities rather than essential public goods [73]. This environmental degradation disproportionately affects vulnerable populations, including children, elderly residents, and low-income communities who have limited access to alternative amenities [74][75][76]. The loss of natural ecosystems simultaneously reduces the city's resilience to climate pressures, such as flooding and urban heat island effects. These environmental challenges compound existing social stresses, creating a complex web of interconnected livability deficits [28][61][77]. The resulting urban condition demonstrates how unmanaged growth systematically undermines the fundamental requirements for sustainable urban living.

In deliberate contrast, IKN's planned development represents an ambitious attempt to establish positive livability cycles from the city's inception. The planning framework reflects a significant philosophical shift, positioning sustainable development and quality of life as primary objectives rather than secondary considerations. This approach consciously integrates green infrastructure, mixed-use neighbourhoods, and accessible public transportation to create synergistic urban outcomes [48][78][79]. The master plan demonstrates a sophisticated understanding of how strategic planning can preempt common urban challenges through careful integration of design. However, this comprehensive approach faces substantial implementation risks that could undermine its livability ambitions if not properly managed throughout the development process.

The transition from planning vision to urban reality presents multiple complex challenges that require continuous adaptive governance. Critical vulnerabilities include the potential failure to achieve functional Diversity, which could result in "dormant" neighbourhoods lacking vitality outside working hours [80]. Transportation systems that prove inadequate or unaffordable may paradoxically foster private vehicle dependence despite transit-oriented design principles [65][81]. Market forces could also compromise social mixing objectives without robust housing policies to ensure socioeconomic Diversity. Both the Jakarta and IKN models provide critical, complementary insights into the complex, often non-linear interplay between policy drivers, urban form pressures, and the ultimate livability outcomes experienced by millions of urban dwellers [43][82]. Jakarta shows the cost of inaction and siloed planning, while IKN highlights both the promise and perils of comprehensive, integrated urbanism. Together, they form a powerful narrative about the future of cities.

Table 2. The transition from planning vision

DPSIR Component	Jakarta (Organic Growth)	IKN (Planned Development)
Driver (D)	Economic centralization; rapid migration seeking opportunity	Enhanced quality of life; sustainable wellbeing; balanced regional development
Pressure (P)	Overcrowded living conditions; inadequate green space; disconnected transport; haphazard urban expansion	Planned neighbourhood completeness; green infrastructure integration; transit-oriented accessibility; forest-city morphology
State (S)	Compromised public health environment; stressful living conditions; marginalized natural spaces; unequal access to amenities	Healthy living environments; socially interactive communities; integrated nature-access; equitable public spaces
Impact (I)	Diminished wellbeing; health disparities; social isolation; reduced life satisfaction	Enhanced quality of life; community vitality; environmental wellbeing; social equity
Response (R)	Reactive infrastructure patches (MRT, ERP) that often create new livability trade-offs	Comprehensive livability-focused planning, requiring continuous adaptation to maintain social equity

This research demonstrates the significant value of applying the DPSIR framework to move beyond theoretical debates about urban models and toward a practical understanding of what makes cities livable. Analysis reveals the complex causal pathways connecting policy decisions to tangible outcomes in human wellbeing and urban quality of life. By dissecting these relationships, the framework provides a rigorous yet accessible diagnostic tool for urban planners and policymakers. It shifts the focus from evaluating cities based on their adherence to specific models to assessing the systemic processes that generate livability. This represents an important advancement in how we can critically examine urban development strategies and their real-world impacts.

The contrasting pathways observed in Jakarta and IKN provide crucial insights for urban governance practices worldwide. Jakarta exemplifies a complex urban system trapped in reactive planning cycles, where solutions to immediate problems often create new, more entrenched challenges. For instance, transportation improvements, such as mass transit expansion, while addressing congestion, have frequently triggered unintended consequences, including community displacement and social fragmentation [83]. The DPSIR framework makes these counterproductive dynamics visible and understandable to stakeholders. It convincingly demonstrates that single-focus interventions consistently fail to improve overall urban livability. This pattern highlights the limitations of addressing urban challenges in isolation rather than through integrated approaches.

For IKN, the analysis reveals both the promise and perils of planning for livability from inception. While the master plan represents an unprecedented opportunity to embed livability principles from the start, the framework identifies critical implementation challenges. A core finding of this research is that creating a truly livable city involves navigating a fundamental tension: excellent public transit alone is not enough. Furthermore, the push for well-designed, compact neighbourhoods can backfire by making housing unaffordable [84], pushing out the essential workers and diverse residents who give a city its character and soul. Ultimately, a livable city must successfully weave together not just physical infrastructure, but also the social and economic fabric that allows all residents to thrive. These findings underscore

the complex relationship between physical planning and socioeconomic outcomes. The framework's principal strength lies in anticipating such implementation risks before they become embedded in the urban fabric.

The success of IKN's ambitious vision depends entirely on adaptive governance capable of preserving livability goals against competing pressures. The master plan should serve as a dynamic decision-making framework rather than a rigid blueprint, enabling necessary course corrections as real-world conditions evolve. This requires establishing robust monitoring systems to track key livability indicators from the earliest stages of development. Governance structures must be empowered to make difficult trade-off decisions that consistently prioritize long-term human wellbeing over short-term gains. Continuous oversight mechanisms could be essential to ensure the plan's core objectives withstand political and economic pressures over time.

Comparative analysis yields a fundamental insight: successful urban development requires pragmatic, evidence-based approaches rather than ideological adherence to specific urban models. The empirical patterns emerging from both Jakarta and IKN demonstrate that contextual factors and systemic interactions ultimately determine urban livability outcomes. These findings challenge the notion of universally applicable urban templates, instead emphasizing the need for adaptive governance strategies. The research contributes to urban scholarship by demonstrating how systematic analysis can bridge the gap between planning theory and practical implementation.

This research offers valuable guidance for cities worldwide striving to balance development with human dignity and wellbeing. The comparative analysis provides universal lessons about the long-term costs of reactive planning versus the challenges of proactive urbanism. As nations confront interconnected challenges of urbanization, climate change, and social inequality, robust analytical tools such as the DPSIR framework become increasingly essential. The experiences of Jakarta and IKN may serve as critical reference points in the ongoing global effort to create more resilient and equitable urban environments. Ultimately, this research contributes to a more nuanced understanding of how cities can systematically enhance the quality of life for all residents.

4. Conclusion

This research has established a systemic, multidimensional framework for conceptualising and evaluating urban livability, operationalised through the rigorous application of the DPSIR model. By synthesizing contemporary international literature and applying this diagnostic tool to the contrasting cases of Jakarta and IKN, we have moved beyond a simple static comparison. Our analysis illuminates the dynamic causal relationships and critical feedback mechanisms that fundamentally shape livability outcomes in different urban contexts. The central finding demonstrates that creating truly livable environments requires more than just achieving ideal physical conditions or density metrics; it demands the careful, continuous management of the entire causal pathway, from underlying drivers to final impacts, through strategic and deeply integrated policy responses.

For urban policymakers and planners, the DPSIR framework offers a highly practical instrument for enabling strategic intervention and fostering anticipatory governance. In the context of Jakarta, the framework underscores the absolute necessity of developing integrated responses that tackle the interconnected nature of livability challenges head-on. This means consciously linking major transportation improvements with parallel policies for affordable housing preservation and community health initiatives to avoid creating new problems while solving old ones. Conversely, for IKN, the framework serves as both a guiding blueprint and an early-warning system, emphasizing the need for continuous monitoring to ensure that planned neighbourhood completeness, social Diversity, and transportation access materialize as intended.

The fundamental, overarching insight from this comparative analysis is that urban livability is an emergent property of understanding and managing cities as complex, interdependent systems, not as mere collections of isolated components or projects. As Jakarta engages in the immensely difficult task of retrofitting livability into its established, often resistant urban fabric, it must adopt a holistic perspective to break its cycle of reactive planning. Simultaneously, as IKN attempts to build a livable city from the ground up, its success hinges on recognizing that its master plan is the starting point for an adaptive process, not a final blueprint. Both cities must internalise that sustainable human well-being depends on this systemic approach, in which environmental, social, and economic dimensions interact in complex ways that either collectively enhance or systematically diminish the quality of urban life for all residents.

Ultimately, this research contributes a robust analytical tool and a critical case research to the global pursuit of more sustainable and humane urban futures. The experiences of Jakarta and IKN provide a powerful, real-world lesson on the long-term costs of fragmented development versus the challenges and opportunities of integrated planning. The DPSIR framework empowers stakeholders to diagnose root causes, anticipate unintended consequences, and design coherent interventions rather than contradictory ones. The journey toward livability is a continuous process of learning and adaptation, demanding a commitment to evidence-based, systemic governance that places human wellbeing at the very centre of urban development.

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