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GLOBALIZATION AND THE DYNAMICS OF URBAN DEVELOPMENT IN INDONESIA

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ABSTRACT

This paper investigates the impact of globalization on urban development in Indonesia by examining its multifaceted dimensions, including environmental sustainability, infrastructure provision, spatial planning, and regional collaboration. The study aims to assess how global frameworks, such as the New Urban Agenda (NUA), the Sustainable Development Goals (SDGs), and Sustainable Urban Mobility (SUM), have shaped Indonesia's urban policies and planning practices. Employing a descriptive-qualitative methodology supported by desk-based literature review, the research further incorporates comparative analysis with actual conditions, contextual developments, and events occurring within Indonesia. By reviewing historical trajectories, institutional frameworks, and policy instruments, the study highlights both the challenges and opportunities that globalization presents for urban governance. The findings demonstrate that globalization not only drives physical urban expansion but also transforms inter-city systems, influences strategic planning approaches, and necessitates integrated responses to environmental risks, technological shifts, and socio-economic inequalities. In addition, the paper addresses contemporary developments such as digital transformation, aerotropolis-oriented planning, and the urban implications of the COVID-19 pandemic, particularly in relation to spatial resilience. The study underscores the importance of adopting holistic, inclusive, and sustainability-driven planning paradigms to effectively respond to globalization. It concludes that Indonesian cities must be strategically embedded within global urban networks while simultaneously preserving local values and identities. Ultimately, the paper offers practical insights for urban planners and policymakers seeking to align global dynamics with national development priorities.

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1. INTRODUCTION

Globalization encompasses a variety of definitions and forms, all of which fundamentally relate to social, economic, cultural, political and demographic phenomena that mutually influence one another across the globe. Over time, the concept of globalization has evolved dynamically, expanding into new domains and interpretations across different regions of the world. The increasing interdependence and interaction among countries has also been emphasized by Scholte (2000), who argues that globalization is not a new phenomenon in urban and regional development. It began as early as the 19th century in the form of international trade. Since then, globalization has undergone a significant metamorphosis, extending beyond trade into nearly all aspects of life, including information systems and models of urban planning and development.

In its current form, globalization facilitates the rapid flow of information and global ideas across national, cultural, behavioral, and traditional boundaries. As a consequence, clashes and tensions often arise between global perspectives and local wisdom (local genius), and to this day, such conflicts remain poorly mapped and understood. Globalization tends to give rise to forms of acculturation that may marginalize the role of local genius in planning processes. Therefore, policy responses that anticipate the impact of global values remain crucial, especially when the influence of a dominant country risks imposing negative consequences on weaker nations, such as through attempts at political or economic co-optation.

The growing interaction between nations also influences the foreign policy of individual countries, regional political dynamics (such as regional co-optation), global power relations, as well as national security and defence. This paper specifically explores the domain of global urban development, focusing on urban infrastructure and transportation, and their impacts on urban activities and physical spatial growth. Scholte (2000), classifies globalization into five categories:

1. Internationalization, which refers to the intensification of relationships between countries and global cities, including cultural, social, economic, trade, and political exchanges. This dimension reflects the increasing interconnectivity among nations and cities worldwide.
2. Globalization as liberalization, which entails the removal of economic and trade barriers between countries and cities. This allows each nation and city to freely exchange and market their respective comparative advantages, including labour and professional expertise such as urban planners and engineers. These interactions can lead to both urban progress and emerging urban challenges as a consequence of cross-border dynamics. Therefore, each country and city must maintain its identity, strengths, and competitiveness by formulating protective regulations to safeguard key commodities and strategic assets. Globalization should not weaken, but rather strengthen, the foundational elements of urban development.
3. Universalization, referring to the adoption of shared values aimed at national, regional, and urban progress through collaborative processes such as educational partnerships, research cooperation, and technological exchange.
4. Globalization as modernization, which emphasizes mutually beneficial cooperation in the context of industrialization and urban development. This includes investment and collaboration in building urban and regional infrastructure based on modern frameworks and schemes.
5. Deterritorialization, a form of globalization that transcends traditional national and urban boundaries for the common goal of regional and national development. A key example is the European Union, where member states have agreed to integrate their regional strategies through a shared masterplan, both spatial and sectoral, while maintaining national sovereignty. Another example is the reunification of East and West Berlin in Germany, driven by the necessity to integrate social, demographic, economic, and infrastructural urban systems.

In Indonesia and neighbouring countries, regional and urban development agreements have also been made in the spirit of globalization. Notable examples include the Singapore–Johor–Riau

(SIJORI) Growth Triangle formed in 1994; the Brunei-Indonesia-Malaysia-Philippines East ASEAN Growth Area (BIMP-EAGA) established in the same year; and the Indonesia-Malaysia-Thailand Growth Triangle (IMT-GT) launched in 1993. These initiatives were structured as collaborative programs aimed at regional and urban development through cross-border cooperation.

Some forms of regional integration have also occurred organically, without formal agreements. For instance, cities in Timor-Leste are heavily dependent on the supply of basic necessities and industrial goods from Indonesia, even in the absence of a binding bilateral cooperation pact. According to data from Indonesia's Ministry of Foreign Affairs (2017), approximately 80% of Timor-Leste's staple food and electronic imports are supplied by Indonesia via overland transport routes. A field survey is did by the Ministry of Public Works and Housing (2018) and followed the distribution path of these commodities along the southern-east coastal road corridor of Timor Island, from Indonesia into Timor-Leste, reaching cities such as Suai in Covalima District. The study found that urban life in these areas is vibrant, with bustling markets and kiosks filled with imported goods from Indonesia, indicating strong socio-economic urban interactions.

According to UN-Habitat (2013), urban development across countries often emerges from shared planning visions and approaches among cities. These interactions are not limited to physical infrastructure but extend to unified urban planning concepts (e.g., city masterplans). The essence of urban development lies in the continuum from conceptualization and planning, to the construction of physical elements, and finally to control and monitoring, ensuring alignment with the original city plan.

Cities with similar characteristics have been intentionally clustered to promote coordinated development, as seen in the planning of cities such as Abuja (Nigeria), Brasilia (Brazil), Shanghai (China), Mumbai (India), and Hanoi (Vietnam). Similarly, regional agglomerations such as Johor Bahru (Malaysia), Singapore, and Batam-Bintan (Indonesia), as well as Hong Kong and Macau (China), have implemented integrated urban planning strategies based on regional cooperation. These urban networks often evolve into larger regional systems, resulting in merged urban spatial configurations commonly referred to as megacities, mega-regions, urban corridors, city-regions, or conurbations.

These spatial formations serve as strategic nodes that facilitate the flow of people, capital, goods, and information across regional and global scales, accelerated by transportation infrastructure and digital communication systems. A prominent example is the Pearl River Delta mega-region in Guangdong Province, China, which comprises nine major cities covering over 40,000 square kilometers and is supported by robust transport networks and intelligent communication systems.

The expansion of mega-urban regions has substantial implications for the cities within them. As highlighted in the UN-Habitat Report (2010), cities in Asia have been significantly affected by global economic dynamics, including during the 1997–1998 financial crisis. Nevertheless, many cities in the Asia-Pacific region have succeeded in fostering urban growth, attracting investment, and facilitating demographic mobility. The Asian Cities Report 2010–2011 also notes that integrated urban and regional infrastructure has not only influenced the pace of urban growth but also created markets for commodities produced within the region. This globalization dynamic has contributed to a restructuring of urban systems into spatially organized hierarchies.

Consequently, clusters of cities have emerged organically, reflecting the internal strengths of each urban center. The implications of globalization, therefore, lie in the creation of structured urban networks and growth centers, either through natural evolution or strategic engineering of shared development trajectories. Some countries are now consciously working to avoid becoming victims of backwash and spreading effects from powerful primate cities located outside their borders. Instead, they aim to harness spillover effects to stimulate growth within their own cities.

Ultimately, globalization significantly influences the planning, development, and conceptualization of urban spatial strategies. It shapes inter-urban systems that extend across nations, whether through informal interactions, cooperative agreements, or formalized regulations. Strategic

coordination is essential to ensure that global interdependence strengthens rather than undermines urban potentials within each country.

2. RESEARCH METHODOLOGY

This study aims to explore various dimensions of globalization, including social, economic, cultural, political, and demographic phenomena, that mutually influence one another across the globe, and their impacts on urban patterns and development in Indonesia. Accordingly, the locus of the study is Indonesia, with analytical coverage focused on how the dynamics of global urban systems influence urban development and planning within the country. The research employs a descriptive-qualitative methodology supported by a desk-based literature review, drawing upon prior studies, academic journals, and textbooks. In addition, it incorporates comparative analysis with actual conditions, contextual developments, and events taking place in Indonesia. Special attention is given to the global event of the COVID-19 pandemic and the associated institutional policy responses, particularly those from UN-Habitat such as the New Urban Agenda (NUA, 2026), the Sustainable Development Goals (SDGs), and regional collaborations like ASEAN. The analysis is conducted to identify global urban trends and their cross-border effects on the conceptualization, pattern, and dynamics of urban development in Indonesia.

The evolution of globalization-related aspects is analyzed in depth, especially in relation to the planning, development, and conceptualization of spatial urban strategies and emerging urban forms. These global urban systems shape inter-urban relationships that transcend national boundaries, through informal exchanges, regional cooperation, and formal regulatory frameworks. Ultimately, the study finds that this conceptual evolution reflects the increasing intensity of transnational interactions and their influence on regional and urban development in Indonesia, emphasizing the need for strategic coordination to ensure that global interdependence enhances urban potentials across the country.

3. RESULT AND DISCUSSION

This section discusses the implications of globalization elements on regional and urban development, with a particular focus on comprehensive and integrated urban development challenges. The term urban development, as used in this context, should be understood broadly, as encompassing not only the physical growth of cities, but also the planning processes, spatial utilization (i.e., the physical realization of urban form), and mechanisms for control, supervision, and regulation to ensure that land use aligns with urban spatial plans.

The analysis in this section adopts a holistic approach rather than examining each aspect in isolation. Instead, it addresses relevant themes and issues within the broader framework of globalization. While globalization encompasses numerous factors that influence urban growth and transformation, this chapter will focus specifically on selected key issues: Global Environmental Concerns, Habitat Conventions (including the New Urban Agenda), the Asian Highway Network, the Sustainable Development Goals (SDGs), Global Urban Systems, and Sustainable Urban Mobility.

Global Environment

The global environmental aspect is one of the key variables that must be taken into account when formulating regional and urban development policies, particularly in the context of Indonesia. As a sovereign nation blessed by God Almighty, the Republic of Indonesia occupies a unique geographical position characterized by diverse physical and climatological conditions that must be acknowledged as they are.

These environmental and climatic conditions, with all their fluctuations, have significant impacts, both in terms of potential disaster risks and the opportunities that may arise in post-disaster recovery, as well as during periods without disaster events. Therefore, understanding and integrating

these dynamics into development planning is essential to ensure sustainable and resilient urban growth.

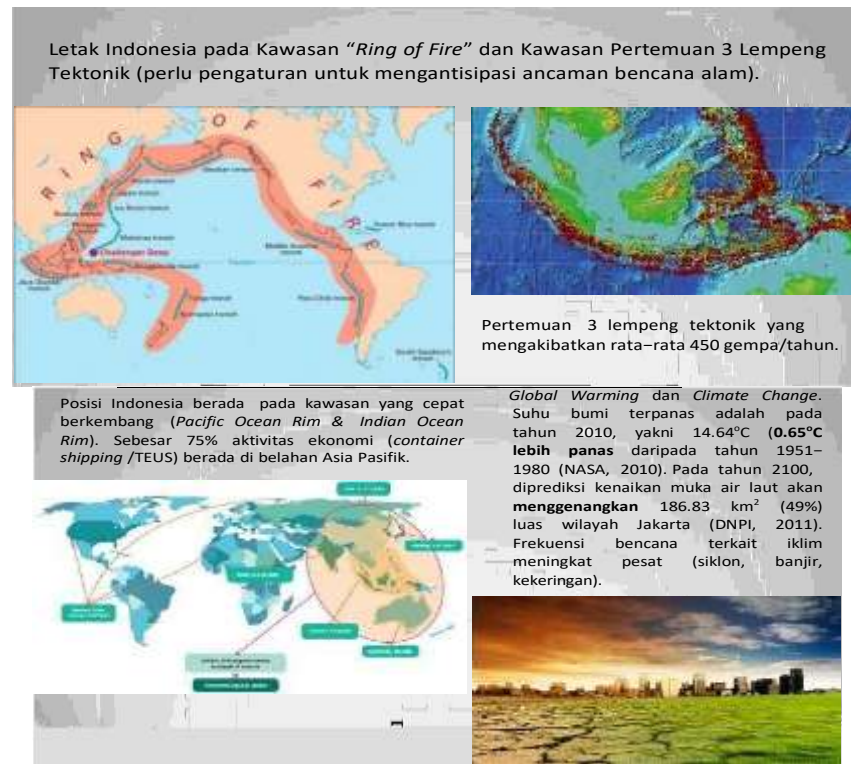


Figure 1. Indonesia's Position and Status in the World

Indonesia is located along the Ring of Fire, a volcanic belt stretching from Latin America, across the Americas and Canada, through East Asia, including China, Japan, the Philippines, Brunei, Malaysia, and Indonesia, and ending in New Zealand. When a single volcano within this ring erupts, the effects can reverberate through the entire volcanic chain, often triggering subsequent eruptions due to seismic and volcanic disturbances. Global volcanologists have observed that tremors and volcanic shocks from eruptions and earthquakes in this zone can be felt across continental and national boundaries.

The impact of volcanic activity extends beyond the loss of natural resources; it also poses serious risks to human life, particularly when eruptions occur near urban areas. Cities located close to active volcanoes are especially vulnerable to physical destruction, socio-economic disruption, and infrastructure damage. For example, major eruptions have occurred at Mount Galunggung in Garut (1882, 1982, and 1984); Mount Merapi in Yogyakarta (1006, 2010); Krakatoa in the Sunda Strait (1883, 2022); Mount Tambora in Sumbawa (1815, 1967); and Mount Bromo in Malang (1974, 2016), among others.

Therefore, it is essential for volcanologists and meeting of three tectonic plates such as Indo-Australia, Eurasia and Pacific plates disaster, that should be anticipated such events (tsunami and earthquake) and enhance Early Warning Systems (EWS), to minimize disaster impacts in term to keep

urban environments well maintained. At the very least, such systems can reduce potential damage. Urban planning and regional development strategies must be guided by disaster-resilient approaches. Indonesia's Meteorological, Climatological, and Geophysical Agency (BMKG) currently plays an important role in issuing alerts and warnings, including through its established EWS, to mitigate the consequences of volcanic eruptions and seismic activity.

In addition to its location along the Ring of Fire, Indonesia lies at the convergence of three major tectonic plates: the Indian Plate, the Eurasian Plate, and the Australian Plate. The deformation process between these plates causes both vertical and horizontal shifts, which frequently result in tectonic earthquakes. These earthquakes are often followed by tsunamis, posing a severe threat to coastal cities, particularly in the western, southern, and eastern parts of Indonesia facing the Indian Ocean, the Australian Strait, and the Arafura Sea. Therefore, urban planning in these high-risk areas must include comprehensive preparedness, including effective EWS deployment. Numerous academic journals have explored frameworks and strategies for resilient urban planning in earthquake- and tsunami-prone regions.

Global warming is another unavoidable phenomenon faced by nations worldwide. It results from a global systemic problem in which polar ice caps have begun melting, largely due to the greenhouse effect. This occurs when solar radiation penetrates the Earth's surface more intensively, as the ozone layer, located 20 to 35 kilometers above Earth, is increasingly depleted, allowing ultraviolet radiation to reach the ground unchecked. The ozone layer functions as a shield that protects the Earth from harmful UV rays.

Rising global temperatures have profound implications for how cities are planned and developed. Urban spatial efficiency, energy consumption patterns, and sustainable development models must all be reconsidered. Urban design must increasingly prioritize the expansion of green open spaces (GOS), not only to refresh and cool the urban environment, but also to absorb carbon dioxide and release oxygen, both of which are essential for public health and environmental sustainability.

Habitat Convention: New Urban Agenda (NUA) 2016

The New Urban Agenda (NUA) is a global agreement established through the consensus of nations during the United Nations Habitat III Conference held in 2016. All participating countries acknowledged that the rapid growth of urban populations is a shared global issue, one that requires collective anticipation and collaborative solutions among the international community.

The United Nations, through UN-Habitat, convenes every 20 years to address global challenges in urban planning and development across all nations, with a particular focus on the increasing urban population. Since the first Habitat conference in 1976 (Habitat I), when the global urban population stood at only 37.9% of the world's total population, the proportion has continued to rise. By the second conference in 1996 (Habitat II), this figure had reached 45.1%, and by the third conference in 2016 (Habitat III), it had surpassed the halfway mark, 54.5% of the world's population was living in urban areas.



Figure 2. Vision of Sustainable Development (Habitat)

Djakapermana (2018) emphasizes that, in line with the global population increase, Indonesia must also anticipate and address the various implications of urban population growth. As early as 2008, the proportion of urban residents in Indonesia had already reached 50.5% of the country's total population, which stood at approximately 220 million people at the time. In response to urban development challenges, Indonesia must align its efforts with global frameworks such as the UN-Habitat New Urban Agenda, which promotes the principles of sustainable urban development through three key pillars: environmental/ecological sustainability, social inclusion, and economic development, with an emphasis on inclusive poverty eradication.

According to Clos (2016), there are three critical instruments for realizing sustainable urban development, including the development of new towns:

1. Legislative and regulatory frameworks that ensure urban growth both internally and regionally. These frameworks must also provide clear guidance for stakeholders involved in urban development to ensure coherent and coordinated implementation.
2. The existence of a comprehensive urban spatial planning system (such as the RTRW and RDTR in Indonesia) that serves as a spatial reference. Urban growth and expansion must be embedded within a macro-framework supported by robust and measurable studies, detailed planning, and assessments that take into account regional interconnectivity, natural resource capacities, demographic and social dimensions, and ecological impacts.
3. The availability of urban financing plans and budgets that are adequate and aligned with urban development objectives. Financing must be secured, systematically programmed, and measurable to support the realization of sustainable urban initiatives.

This global commitment, endorsed by heads of state, national and local governments, parliaments, civil society, local communities, the private sector, professionals, academics, and other stakeholders, is crucial in addressing urban population growth. Despite continued challenges such as inequality, poverty, and environmental degradation, there is a shared recognition among nations of the need to tackle these issues through joint action and a shared commitment.

All countries are thus committed to pursuing an integrated and coordinated sustainable urban development agenda at global, regional, national, sub-national, and local levels. This effort aims to ensure inclusive and participatory urban development while respecting the diversity and unique conditions of each country.

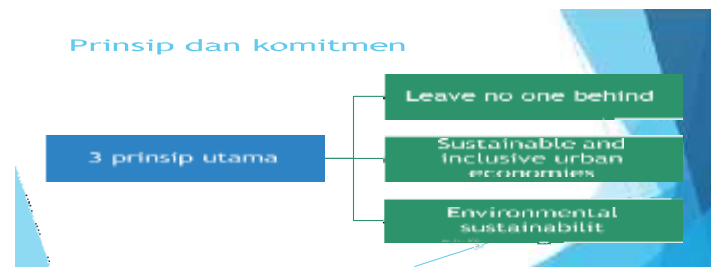


Figure 3. Principles and Commitments (NUA)

The global consensus articulated in the New Urban Agenda (NUA) declaration affirms that each country must adhere to the following core principles:

1. No country should be left to face urban challenges alone, particularly in relation to underdeveloped urban areas, limited access to technological advancement, disaster response difficulties, urban-related socioeconomic issues, and the negative impacts of rapid urban population growth, especially in neighbouring or closely interconnected countries. Nations are expected to collaborate and mutually assist one another in addressing urban problems. Indonesia, in this spirit of global solidarity, is also expected to actively participate in joint efforts to support other countries, in line with the NUA's guiding principle of "leave no one behind."
2. Each country must adopt urban planning and development approaches based on sustainability, while ensuring the inclusive involvement of all societal groups, and prioritizing the principles of urban economic development.
3. All countries must prioritize sustainable environmental principles as a foundation for development, ensuring that urban growth and modernization are aligned with ecological resilience and long-term environmental protection.

New Asia Highway

One of the key aspects of globalization in Indonesia's urban development is the New Asia Highway concept. This initiative is a joint agreement among countries across the Asian continent, including Indonesia and Australia, to establish a primary land transportation network that passes through numerous cities, stimulating the growth of urban centers through increased trade interactions along these routes. The highway system is designed to extend from Asia into Australia, and although Indonesia is an archipelagic state, it forms a critical link between the Asian and Australian continents. The concept was initiated by the United Nations (UN).

The New Asia Highway spans from Mongolia and China, through Pakistan, India, Nepal, Thailand, Malaysia, and Indonesia, and reaches all the way to Australia.



Figure 4. Indonesia of the New Asia Highway

Indonesia must optimize the benefits of the New Asia Highway for urban development due to the following strategic reasons:

1. As a global trade corridor, the highway facilitates overland transportation in a relay system that creates value-added opportunities for cities across Asia and Australia, including urban centers in Indonesia.
2. From a financing perspective, the project allows for cost-sharing mechanisms that could be coordinated by United Nations bodies such as ECOSOC and UN-Habitat, promoting international collaboration in infrastructure investment.
3. The Asia Highway network should be strategically incorporated into Indonesia's regional and urban development planning, particularly for cities and regions that will be directly connected to the route.
4. Additionally, the Asia Highway is expected to generate economic spillover effects along its path, stimulating the growth of economic activities in surrounding areas and adjacent corridors through improved land transport connectivity.

In essence, the Asia Highway must be proactively anticipated and strategically utilized to support the integrated development of Indonesia's urban and regional systems.

Sustainable Development Goals (SDG's)

The Sustainable Development Goals (SDGs) are a global agreement initiated by the United Nations (UN) to guide the development of cities and regions based on the overarching aim of achieving sustainability. Technically, the SDGs consist of 17 goals and 169 targets, forming a comprehensive global action plan spanning 15 years, from 2016 to 2030. The SDGs are grounded in principles of inclusive development, enhanced accessibility to various development sectors, poverty reduction, and environmental protection, emphasizing an integrated and holistic approach.

These principles must also be applied to all aspects of urban development in Indonesia. The support and involvement of local governments and regional stakeholders are crucial for realizing the commitments embedded in this global framework.



Figure 5. The Three SDG's for Indonesia to infrastructure and urban development

Among the 17 goals, three SDGs are directly related to infrastructure and urban development, which are essential for sustainable city planning and growth:

- SDG 6: Clean Water and Sanitation
- SDG 9: Industry, Innovation, and Infrastructure
- SDG 11: Sustainable Cities and Communities

These goals emphasize the importance of urban development strategies that are aligned with the principles of sustainable urban planning. The Indonesian government has committed to pursuing these three SDGs in a structured, well-programmed, and financially supported manner. Moreover, efforts are being made to ensure that the implementation of the SDGs is complementary and aligned with the objectives of the New Urban Agenda (NUA).

While the SDGs are set to conclude in 2030, the NUA spans a 20-year cycle and will conclude in 2036. To ensure synchronization, Indonesia's National Secretariat and the National Development Planning Agency (Bappenas) are actively working to align both agendas within the country's urban development framework. This includes coordinating and monitoring implementation efforts by local governments to ensure coherence and effectiveness in sustainable urban transformation.

Global Urban System

As outlined in the discussion above, Indonesian cities cannot be isolated from the influence of global dynamics. Cities in Indonesia interact and are systematically influenced by the growth of global cities, particularly those in the Asia-Pacific and East Asia regions. The influence of global cities extends to the conceptualization and intensity of urban systems, such as megapolitan/metropolitan areas, large cities, medium-sized cities, and smaller towns.

According to Firman (2015), in various publications, the relationship between urban systems in Asia and the development of Indonesian cities can be categorized as follows:

1. The physical expansion of large cities in East Asia has often exceeded their formal administrative boundaries, encroaching into neighboring jurisdictions and causing fragmentation in urban governance. A parallel can be drawn with Jakarta and its surrounding region (Jabodetabek), which has experienced similar developments. This model has become influential in shaping the urban structure of Jabodetabek.
2. The growth of major cities such as Tokyo, Shanghai, Jakarta, Seoul, and Manila has been primarily driven by urban in-migration, resulting in critical urban challenges such as housing shortages, inadequate infrastructure, limited employment opportunities, and strained health and education services. These issues mirror the rapid expansion of new urban settlements in the Jabodetabek region.

3. In an article published in Kompas Daily (January 28, 2015), Firman responded to a piece titled “Building Cities that Work for the Poor” by Alex van Trotsenburg, World Bank Vice President for East Asia and the Pacific. The article presents a comprehensive study of physical and demographic developments in East Asian cities, including Indonesia. While insightful, Firman notes that it does not fully capture contemporary urban trends in Asia, particularly the emergence of urban spaces not primarily driven by population mobility.
4. This phenomenon is referred to as in-situ urbanization, where rural or semi-urban areas organically evolve into urban settlements due to internal socio-economic activity. Data indicate that population growth in many Indonesian regencies surpasses that of major urban centers, signifying the rise of new urban hubs not linked to traditional rural-to-urban migration patterns. Such emergent centers warrant serious attention regarding their potential to host diverse economic activities, beyond the confines of globally oriented metropolitan circuits that are often disconnected from local economies.
5. An important takeaway from van Trotsenburg’s article is the emphasis on policy implications aimed at fostering efficient urbanization and inclusive economic opportunity. These include strategies to expand land access, redevelop dense urban neighborhoods into livable areas, and improve urban service delivery.
6. There is also a growing disconnection between major cities and surrounding regions, including medium and small towns in Indonesia. The development trajectory of globally oriented megacities has tended to marginalize smaller cities, exacerbating inter-city disparities. Similar trends have been observed in other Southeast Asian countries, such as Thailand, the Philippines, and Vietnam. A key challenge in Asia’s urban development, therefore, lies in reducing inequalities between large and smaller cities.
7. Urban development in many Asian countries, including Indonesia, remains heavily biased toward large cities, reinforcing their roles as national and regional economic centers while neglecting the functional significance of small and medium-sized cities. This bias attracts internal migrants and exacerbates social, economic, and environmental pressures on large urban centers.

Firman (2003), as cited by Iwan Kustiwan (2010), also highlights the hierarchical structuring of global urban systems, which over time tend to cluster cities into distinct hierarchies, a topic illustrated further in the table that follows (Hierarchy of Cities in the Global System).

Table 01. The Hierarchical Structuring Of Global Urban Systems

Core Countries		Semi-Periphery Countries	
Primary	Secondary	Primary	Secondary
EUROPE			
London	Brussels		
Paris	Milan		
Rotterdam	Vienna		
Frankfurt	Madrid		
Zurich			
AMERICA			
New York	Toronto	Sao Paolo	Buenos Aires

Chicago	Miami		Rio de Janeiro
Los Angeles	Houston		Caracas
	San Fransisco		Mexico City
ASIA			
Tokyo	Syney	Singapore	Hongkong
			Taipei
			Manila
			Bangkok
			Seoul
AFRICA			
			Johannesburg

Source: T. Firman (2003) dalam Iwan Kustiwan (2010)

According to T. Firman (2003), as cited in Iwan Kustiwan (2010), globalization and the formation of global urban systems are driven by several interrelated factors:

1. Advancements in production technology, which have enabled the global segmentation of industrial production processes;
2. The emergence of global financial institutions, which have formed networks that strongly support and reinforce industrial segmentation;
3. Technological progress in information and communication, which has greatly facilitated the flow of capital, commodities, and information. With these technological advancements, industrial headquarters can manage and control their branches and subsidiaries across different locations;
4. The role of international institutions such as the World Trade Organization (WTO) in facilitating the liberal flow of goods, capital, and services, thereby integrating developing countries into the global economic system;
5. The growth of global cities can be seen as an expansion of urban functions beyond national boundaries into a broader global constellation, reflecting a shift from local/national to transnational urban significance.

In the context illustrated by the table above, Indonesian cities are positioned within the economic sphere of global cities in semi-periphery countries, particularly within the secondary cluster of Asian cities, under the influence of major regional hubs such as Hong Kong, Taipei, Bangkok, Manila, and Seoul.

From these dynamics, several key conclusions and reminders must be emphasized for urban and regional planners, policymakers, and stakeholders:

1. The influence of globalization, especially from East Asia, will significantly impact urban planning and development systems in Indonesia. As such, Indonesian urban policies must remain responsive to external trends while adapting them to national and local contexts.
2. The development of Indonesia's urban system should not solely prioritize global economic integration and investment in large and metropolitan cities under the argument of efficiency. Rather, it is essential to prevent the widening disparity between large cities and medium and small-sized cities. Urban development strategies must aim to strengthen balance and distribute investments both individually and systemically across all urban hierarchies.
3. Urban planning and development in Indonesia, both in theory and global practice over the past decades, must consistently be oriented toward wider regional and systemic

development. Urban planning should take into account the interactions, functions, and economic roles of each city at both regional and global levels. It should also consider natural resource potentials, environmental sustainability, demographic dynamics, and socio-cultural aspirations, so that cities can be allocated clear and differentiated roles and functions within the national urban network.

Urban development should not be based solely on the individual role of a single city, nor should the planning of new towns be conducted in isolation. Cities exist and evolve as part of a larger, systemic network, and this principle has long been recognized in regional and urban development theory. However, it is often not implemented consistently and is frequently compromised by discretionary, political, or short-term business interests.

Sustainable Urban Mobility (SUM)

Sustainable Urban Mobility (SUM) is a global concept that significantly influences the development of cities worldwide and presents a series of challenges that urban areas must proactively address. The SUM framework was initiated by UN-Habitat in response to the rapid evolution of modern technologies, including information and communication technology (ICT) and automotive advancements such as electric vehicles (EVs) and autonomous cars. These technological shifts affect patterns of urban mobility, as cities increasingly serve as key markets for the global automotive industry. Indonesia, in particular, has become one such emerging market.

The concept of sustainable urban mobility continues to evolve dynamically, heavily influenced by advancements in vehicle technologies. As competition among vehicle-exporting countries intensifies, Indonesia has seen a surge in vehicle imports, not only from Japan, Korea, and Europe, but also from China (e.g., Wuling). The diversity of vehicle types and technologies entering Indonesia is shaping new patterns of urban mobility and impacting the implementation of sustainability principles.

Private vehicles, in particular, remain the most lucrative and aggressively marketed segment. Each year, vehicle manufacturers introduce new models, shapes, colors, and features, sometimes with only minor aesthetic changes such as mirrors, grilles, or wheels. However, aggressive branding and advertising through mass media, fueled by digital marketing strategies, have contributed to consumer behavior driven by image, prestige, and the desire for constant vehicle upgrades, even within a short ownership period. This consumerism accelerates the rise in private car usage, further impacting urban congestion and mobility systems.

In the context of Indonesian urban development, the SUM concept must be implemented with a strong focus on:

1. Maximizing the shift from private vehicles to public transportation, thereby reducing congestion, emissions, and urban sprawl;
2. Developing Transit-Oriented Development (TOD) as a strategy to integrate residential patterns with public transportation networks in a cohesive and efficient manner;
3. Establishing hierarchical corridor-based road networks, which differentiate between main urban transport corridors, high-density commercial corridors, and lower-density residential corridors. SUM planning must avoid blending traffic functions that serve different urban mobility purposes.

Indonesia should harness the SUM framework to align with environmental sustainability principles, including the development of green corridors (green open spaces/RTH), low-emission transportation systems, and the creation of comfortable and accessible TOD areas that support livable and inclusive cities.

Urban Development in Indonesia: Contemporary Issues and the Urban Response to the Covid-19 Pandemic

To understand urban development in Indonesia, it is important to begin with its etymological and conceptual scope. Urban development refers to a broad process, encompassing planning, physical implementation, and the regulatory mechanisms that ensure compliance with development goals. Geographically, a city is a spatial concentration of daily human activities located in strategic areas that function as centers of population mobility. Urban areas, as opposed to rural areas, are characterized by human-made structures, with minimal presence of natural landscapes.

Demographically, cities are defined by high population density, with most residents engaged in non-agricultural sectors such as commerce, finance, banking, transportation, formal sector employment, industry and warehousing, shopping centers, entertainment complexes, office spaces, administrative centers, and hotels. In contrast, rural areas are more closely associated with informal, community-based interactions, often rooted in traditional practices such as mutual cooperation (*gotong royong*), and are dominated by activities in agriculture, fisheries, and plantation sectors.

This paper does not aim to revisit or elaborate on the classical urban development theories in detail, though they continue to provide foundational knowledge. In practice, these theories are often subject to adaptation, modification, evolution, or even obsolescence, depending on real-world dynamics such as population shifts, technological advancements, and sociocultural transformations. The following are some of the key urban development theories historically referenced:

- 1) Doxiadis' Ekistics Theory (1960s) – which outlines a hierarchical urban structure based on five interacting elements: nature, anthropos (people), society, shells (buildings), and networks;
- 2) Kevin Lynch's "The Image of the City" (1960) – which introduced cognitive urban imagery and standard urban forms;
- 3) Patrick Geddes' work "City Development" (1904) – focused on urban parks, gardens, and cultural infrastructure;
- 4) John Friedmann's Growth Pole Theory (1986, 2003, 2006) – which posits the centrality of primate cities in hierarchical growth based on transport linkages and economic polarization;
- 5) Joseph De Chiara and Lee E. Koppelman's "Site Planning Standards" (1978) – which defined urban dimensions, intensity, accessibility, and walkability;
- 6) Hamid Shirvani's "Urban Design and Planning" (1985) – which proposed eight essential urban elements: land use, building condition, traffic/parking, open spaces/green areas (GOS), pedestrian systems, activity support, preservation, and public facilities;
- 7) Lewis Keeble's "Town and Country Planning" (1969) – which provided spatial standards and city models appropriate for that era;
- 8) Other influential thinkers such as McGee, Christaller, Abler, John Glasson, and others, whose theories continue to inform the discipline.

Many of these theories may still hold relevance today and could be adapted to fit evolving circumstances. However, modern urban development must contend with a rapidly changing technological landscape, including digitalization, high-tech innovations, IoT (Internet of Things), and the broader contexts of Industry 4.0 and Society 5.0. Urban planning must also integrate considerations of climate change, environmental sustainability, and global health conditions that shape urban life.

In particular, the COVID-19 pandemic has emerged as a critical global phenomenon with profound implications for urban planning. It has exposed vulnerabilities in public health infrastructure, housing density, transportation systems, and social inequalities, requiring cities to rethink resilience and adaptability.

Therefore, this section emphasizes two critical issues in contemporary urban discourse:

- The current patterns, trends, and transformations in urban development;
- The strategic responses of urban planning and development in the context of the COVID-19 pandemic.

Both issues must be understood not only within the national context of Indonesia but also within the wider global framework, as cities continue to evolve in increasingly interconnected, uncertain, and dynamic environments.

Urban Development Issues in Indonesia

Duthilleul (2012), in his book *Circulate*, illustrates that the current structure of cities is constantly shifting and evolving, what is often referred to as modern cities or even smart cities. In Indonesia, the concept of smart cities has gained increasing attention, with various discussions, seminars, and workshops held across the country. Leading universities such as ITB, ITS, IPB, and UI have actively contributed to the discourse, emphasizing that smart cities must be designed and developed through IoT-based systems, computing technologies, and digital information systems. The goal is to achieve high levels of efficiency in spatial utilization, thereby generating significant economic benefits.

While the adoption of IoT and computer systems in urban development is necessary and even inevitable, it is important to note that building smart cities is neither cheap nor simple. More importantly, such developments must be aligned with local cultural values and social readiness, requiring gradual public engagement and education, rather than abrupt implementation. Ultimately, the objective of urban development must remain focused on sustainability, improving quality of life, ensuring aesthetic value, economic prosperity, and ecological resilience.

Djakapermana (2010) argues that a systemic approach to dynamic environments offers strong prospects for addressing paradigm shifts in spatial planning and urban development. Cities, both in terms of their social and economic life, are inherently dynamic and must be planned in conjunction with the physical, topographical, and ecological realities of their surroundings. Therefore, holistic and integrated approaches in planning are essential, reaffirming the need for systems thinking.

Another emerging issue in urban development across Indonesia's major cities is the integration of air transportation infrastructure, notably through the concept of aerotropolis, introduced by Kasarda (2011). In this framework, cities are no longer planned in isolation but must be integrated with the functions of airports. Cities must be efficient and complementary to the purposes of air travel, offering supporting infrastructure such as hotels, MICE facilities (meetings, incentives, conferences, and exhibitions), shopping malls, banks, and business centers. Cities are increasingly embracing Airport-City Development, aiming to stimulate business visits, trade exhibitions, cultural tourism, and culinary experiences, supported by efficient multimodal public transport such as MRT, light rail, busways, and other connectivity systems. However, such concepts must be carefully planned, considering macro-regional systems, inter-city linkages, and the city's own internal economic activities. Airports must be productive and sustainable, given their high maintenance costs.

Another critical issue in urban planning in Indonesia is the growing emphasis on Transit-Oriented Development (TOD). This concept is now backed by legal regulation (Ministry of Agrarian and Spatial Planning Regulation No. 16/2017). TOD offers solutions for efficient urban mobility, encouraging a shift from private to public transportation, land-use efficiency, and the development of compact cities. This is especially crucial for metropolitan areas functioning as economic growth hubs.

Dardak et al. (2006) stresses that cities must provide high-quality public services, enable regional integration, and facilitate infrastructure development to foster balanced urban growth. TOD is also expected to stimulate the emergence of new growth centers, extending benefits to suburban areas, thus reducing intra-city disparities.

Urban planning strategies must also adapt to the rise of digital and on-demand transportation services, such as Gojek, Grab, and other online delivery platforms. These platforms have transformed urban mobility and logistics. Research by Warto et al. (2022) shows that traditional public transport modes (such as “angkot”) have lost significant ground to online motorcycle taxis (ojek online), due to lower prices, faster services, and door-to-door travel convenience. Ojol services also receive revenue from digital advertising, enabling more competitive pricing.

In response, some local governments have introduced alternatives. For example, the JakLingko system in Jakarta (since 2018) enables users to travel across all public transport modes (MRT, LRT, TransJakarta, medium and small buses, and angkot) for a flat fare of IDR 5,000 for 3 hours, a competitive countermeasure to Ojol for long-distance commuting.

Online shopping, food delivery, courier services, and lifestyle apps (GoSend, GoFood, GoClean, etc.) have drastically reduced the need to travel, altering patterns of urban traffic, public transport competition, and demand for space (e.g., curbside pick-up/drop-off, informal ojol waiting zones). Planning must account for the intensity of movement, street space management, parking zones, and service access locations. These trends require deeper study as a consequence of digital modernization.

Ultimately, local governments must be at the forefront of addressing these urban issues. A key reference in this context is the book *Making Cities Work: The Role of Local Authorities in the Urban Environment* by Gilbert et al. (1996), which outlines key responsibilities of local authorities in guiding cities toward sustainable development. The book identifies several core principles:

- 1) Urban development must uphold the three pillars of sustainability: social, economic, and environmental;
- 2) Cities must think locally while addressing global issues;
- 3) Local governments must understand and apply principles of decentralization;
- 4) Institutional frameworks must be strengthened to operationalize urban strategies;
- 5) Inclusiveness in stakeholder engagement must be a priority;
- 6) Human resource development and strong leadership are essential;
- 7) Local capacities must be cultivated and implemented collaboratively.

These principles must be formally codified in urban regulatory instruments such as City Spatial Plans (Rencana Tata Ruang Wilayah or RTRW). In alignment with the New Urban Agenda (NUA), sustainable urban development requires the integration of three key components: appropriate and enforceable legal frameworks; comprehensive and well-articulated spatial planning documents, including the RTRW and supporting mayoral regulations; and adequate funding mechanisms to ensure the effective realization of development objectives.

Urban Development in Response to Pandemic Issues (Including Covid-19)

The discourse surrounding urban development and the Covid-19 pandemic in Indonesia began to intensify around February 2020, when the virus first entered the country. Since then, discussions have continued to grow across multiple platforms, including mainstream media, social media, seminars, public forums, and official guidance from national and international institutions such as the Indonesian Covid-19 Task Force, WHO, ADB, World Bank, NASA USA, UN ESCAP, and UN-Habitat.

The Covid-19 pandemic, having claimed millions of lives globally, including in Indonesia, has prompted ongoing studies, policy analyses, and anticipatory planning efforts. Although urban planning discourse related specifically to pandemics remains limited, the crisis has sparked critical reflection among urban planners and scholars, especially within the field of urban and regional planning (PWK). It has raised questions regarding the relevance, adaptability, and resilience of existing planning models.

At present, there is no universally accepted model or framework for urban form and spatial planning that is proven to mitigate or contain pandemics such as Covid-19. Most proposed ideas are still embedded or inherent elements within broader urban planning strategies. This paper compiles and synthesizes various insights, drawn from numerous references, including discussions from a national seminar held at Pakuan University on May 6, 2020, featuring panelists such as Prof. Dwikorita Karnawati (Head of BMKG), Hendricus Andi S. (Chairperson of PN IAP), and Ruchyat Deni Dj (Postgraduate Lecturer, UNPAK).

The following is a summary of several key ideas and anticipatory strategies for responding to the urban impacts of pandemics like Covid-19. While these ideas are not presented in a strict systematic order, they offer valuable insights:

- 1) Covid-19 spread rapidly in urban areas such as business districts, entertainment zones, and office complexes, particularly in high-income nations like Europe, China, South Korea, and the USA.
- 2) Urban layouts with grid or concentric radial patterns in high-density residential areas tend to facilitate virus transmission, especially in cities with strong social interactions and crowding (e.g., New York, London, Paris).
- 3) The grid-pattern layout may hinder evacuation processes, especially if the roads are narrow or poorly connected.
- 4) Clustered or multiple-nuclei residential developments can slow the spread of pandemics due to lower density, greater spacing between houses, presence of private yards and gardens, and the feasibility of self-isolation, examples of which are found in Indonesian suburban housing.
- 5) Dense and informal settlements in Indonesia also exhibit high transmission rates, due to the absence of space between homes, intense social interaction, and limited access to isolation spaces or proper evacuation routes.
- 6) Urban structures should include designated zones and multipurpose buildings (e.g., gyms, halls) that can be repurposed for quarantine or isolation in the event of future outbreaks.
- 7) Cities should develop health-responsive zoning guidelines, incorporating multifunctional or high-rise buildings that can be easily adapted for emergency use during pandemics, complete with proper infrastructure and equipment.
- 8) Institutional structures, such as the Covid-19 Task Forces from the national level down to neighborhood units (RT/RW), should be maintained even after the pandemic, as they can be repurposed for other community needs.
- 9) Urban planning must include designated burial areas, under government control, that can be activated when needed. These areas can serve as green open spaces or recreational fields until needed for pandemic-related purposes.
- 10) Cul-de-sac residential designs offer advantages in controlling movement and monitoring community mobility, due to having a single point of entry and exit.
- 11) The social and cultural awareness of urban communities is crucial for managing pandemics. Public understanding and unity in health responses are necessary; misinformation or disagreement can hinder collective action.
- 12) Social engineering and communication strategies, including those involving post-truth information systems, can play a pivotal role in reducing pandemic spread in urban areas.

4. CONCLUSION

In conclusion, this study demonstrates that globalization significantly shapes urban development in Indonesia through diverse dimensions such as trade, transportation, communication, environment, and technological innovation. Key global frameworks, including the New Urban Agenda (NUA), the Sustainable Development Goals (SDGs), the Global Urban System, and Sustainable Urban Mobility

(SUM), have become increasingly influential in shaping urban policy and planning strategies. These global dynamics should be interpreted not only as challenges but also as opportunities that require strategic anticipation, contextual adaptation, and sustainability-oriented responses. The findings also indicate that while traditional urban development theories remain valuable, they must be continuously revised to accommodate contemporary global realities, particularly those driven by digital transformation, smart technologies, Industry 4.0, and Society 5.0. The study identifies the integration of technological innovations, mobility systems like aerotropolis and TOD, and climate resilience measures as essential components of Indonesia's future urban strategies. Furthermore, the experience of the COVID-19 pandemic highlights the urgent need for flexible urban infrastructure, including the design of multipurpose buildings and adaptable zoning guidelines that support public health responsiveness. Each city should develop architectural and spatial standards that allow for rapid transformation during health crises, ensuring the availability of isolation facilities and multifunctional urban spaces. Ultimately, this study reinforces the necessity of a strategic, inclusive, and adaptive planning paradigm that aligns Indonesia's urban growth with global interdependence while preserving local values and responding to emerging challenges in a holistic and sustainable manner.

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