Ensuring Sustainable Urban Transformation in Indonesia: Toward Indonesia Emas 2045

B. Setiawan\(^1\) and Tri Mulyani Sunarharum\(^2\)

Graduate Program in Urban and Regional Planning, Universitas Gadjah Mada, Indonesia\(^{1,2}\)

bobi.setiawan@yahoo.com; yani.sunarharum@ugm.ac.id

Urbanization and Urban Transformation in Indonesia

Of the many important events that occurred in the two decades of the 21st century, the process of accelerating urbanization—especially in third-world countries—became something quite phenomenal. It’s never even happened before. In the early 2000s only about 45 percent of the population in the third world countries lived in urban areas, by 2020 the number gained about 55 percent. Between now and 2035 the percentage of the population living in urban areas will reach about 85 percent in developing countries. Meanwhile, it will reach about 65 percent in developing countries. By 2035, it is also predicted that about 80 percent of the world’s urban population would live in developing countries’ cities.

In Indonesia, the rate of urbanization will increase in the upcoming two to three decades. Although currently still below Latin American countries, the urbanization level in Indonesia has actually surpassed some countries in the Asian region such as Burma, Vietnam, Cambodia, and the Philippines. As seen in Table 1, in 2045—when Indonesia will celebrate as the 100th year of Indonesian independence or the Indonesian Golden Year—it is predicted that about 70 percent of Indonesia’s population will live in urban areas. This means there are about 220 million inhabitants (Table 1 and Chart 1). This number is certainly very high and therefore it takes the thought of urban planning and management that is not only inclusive, safe, and resilient, but also sustainable.
Chart 1. Trends of Urbanization: Indonesia and the world.

![Chart of Urbanization Trends](https://data.worldbank.org/indicator/SP.POP.TOTL/view=chart)

Source: World Bank, 2019 (https://data.worldbank.org/indicator/SP.POP.TOTL/view=chart)

As an illustration, when Indonesia gained independence in 1945, Indonesia's urban population was only about one-eighth of the total population of Indonesia living in urban areas. This equates to about 8.6 million people (World Bank, 2019). In 2045, BPS (2019) predicted Indonesia's population would be 319 million people. This figure indicates an increase of 52 million compared to the current population—as many as 267 million. That year, if the urbanization rate is about 70%, there will be about 223 million Indonesians living in urban areas (BPS, 2019).

Table 1. Urban and Rural Population (2010-2045)

| No. | Year | Urban Population (million) | Rural Population (million) |
|-----|------|-----------------------------|---------------------------|
| 1   | 2010 | 118.8                       | 119.7                     |
| 2   | 2015 | 136.2                       | 119.3                     |
| 3   | 2020 | 153.7                       | 117.4                     |
| 4   | 2025 | 170.9                       | 113.9                     |
| 5   | 2030 | 187.9                       | 108.5                     |
| 6   | 2035 | 203.6                       | 102.1                     |
| 7   | 2040 | 210.4                       | 98.8                      |
| 8   | 2045 | 223.3                       | 96.2                      |

*Source: The 2010 – 2035 Indonesian Population Projection, UNFPA*
The important thing to note from the increase in urbanization in Indonesia is that when viewed from time to time, there is an interesting trend. Although the increase in urbanization was quite high—about 3% in the 1980s to 1990s—in the 2000s to the present, there was a downward trend. At this time, the urbanization level in Indonesia is similar to the increase in urbanization in the 1950s to 1960s, and Brazil (86.3%) according to the World Bank (2019).

In terms of geographical area, although the average urbanization rate in Indonesia is already higher than 50%, there is certainly a major difference. As can be seen in Table 2 below, Java and Bali have much higher rates of urbanization than other regions in Indonesia. Some areas outside Java and Bali whose urbanization rate is quite high and equivalent to in Java are Riau, East Kalimantan, and North Sulawesi. This data appears to be related to a World Bank study indicating that the concentration of urbanization in Indonesia occurs in metropolitan areas.

Although all regions in Indonesia are experiencing increased urbanization, about 57% of the population of urban areas in Indonesia is currently concentrated in metropolitan areas in Indonesia such as Jabotabekjur, Greater Bandung, Semarang, Surabaya and surrounding areas, Medan, and Makasar. The rest, 43% live outside the major metropolitan areas, including in medium and small towns spread from...
Sabang to Merauke. Meanwhile, in terms of improvement, Sulawesi, Java, and Bali are the regions have the highest acceleration rates.

**Context, Urbanization Opportunities, and Urban Transformation in Indonesia**

More than just demographic figures, the issues and challenges of urbanization and urban growth in Indonesia require special attention and understanding. That’s due to Indonesia’s unique spatial and environmental characteristics. There are at least 5 characteristics of urbanization and urban growth in Indonesia—as the largest maritime country in the world. *First*, urbanization in Indonesia occurred in the context of Indonesia as the second mega-diversity after Brazil—unfortunately, it is now in a threatened state. These characteristics are very important to understand that the urbanization process must be carried out with minimal threat to the preservation of Indonesia’s biodiversity which has a global role.

*Second*, urbanization and urban growth in Indonesia also occurs in the context of Indonesia as the country with the second largest tropical forest in the world. In these circumstances, the presence of tropical forests that contribute greatly to the preservation of the world’s environment needs to be monitored. Urbanization and urbanization processes should also be minimal, putting pressure on tropical forest conservation efforts that are strongly linked to global climate change issues.

*Third*, urbanization and urban development in Indonesia also occur in Indonesia’s environment as the world’s largest maritime, with 17,508 islands and coastlines along 54,716 km. This situation has real implications for the distribution, development, and shape patterns of cities in Indonesia characterized by: 1) the large number of coastal cities—with a high level of vulnerability to sea level rise; 2) quite a large number of cities located in remote areas with poor accessibility; 3) the size of the opportunity for coastal cities to utilize existing marine resources. The specific characteristics of cities in Indonesia in the context of maritime countries are very important to consider in the formulation of urban development policies and strategies in Indonesia.

*Fourth*, urbanization and urban development in Indonesia also occur in the context of countries or regions that are vulnerable to various types of natural disasters, whether volcanic eruptions, earthquakes, tsunamis, and other natural disasters. This condition has caused many cities in Indonesia to have a high level of vulnerability or also a high risk of natural disasters. This does not include the possibility of unnatural disasters. The formulation of urban development policies and strategies in Indonesia should pay attention to this aspect and make the toughness of the city one of the main objectives.

From the social aspect, urbanization and urban development increase social and economic problems, ranging from urban poverty, social imbalance, intolerance and urban social conflict, terrorism, urban crime, and urban corruption. In terms of economy, urbanization and urban development are not accompanied by significant increases in local income. Most cities in Indonesia still rely on development financing in the allocation of funds from the central government and most cities in Indonesia have not optimally increased the productivity of their cities. In addition, in terms of institutions and governments, cities in Indonesia have not been fully effective and innovative because incompetent human resources and governments are exacerbated by inadequate and less innovative local leadership capacity.

In the midst of the challenging context as described above, the urbanization and transformation of cities in Indonesia is also accompanied by positive opportunities that need to be optimized. Demographic bonuses are one of the opportunities that should be optimized in Indonesia. If accompanied by competent and competitive development of human resources, Indonesia will become a country with large production and consumption power. As an illustration, in 2020 there are approximately 269.6 million people in Indonesia. Of these, the unproductive age category (0-14 years) is 66.07 million people, the productive age (15-64 years) is 185.34 million people, and the age is already unproductive (65+ years) 18.2 million people. Indonesia’s population is predicted to grow to about 319 million by 2045.

Based on the data, Indonesia will experience a demographic bonus period until 2045. This is characterized by a greater number of productive age populations than the unproductive (unproductive and unproductive) population. The number of productive ages by 2020 reaches 68.75% of the total
population. The abundance of human resources of this productive age should be utilized by improving quality, both education and skills in order to meet the Industrial Era 4.0.

Furthermore, the consolidation of democracy and decentralization that has been and continues to occur and is expected to be stronger and provide opportunities for the improvement of public services as well as the progress of regional development. This will reduce regional inequality and strengthen Indonesia's unity in the global competitive arena.

The diversity of people in Indonesia from Sabang to Merauke has proven in Indonesia's history as a republic with the principle of unity and diversity. It is just as important and a major force to make Indonesia progressive and competitive at the global level. Ultimately, the consistent and promising economic potential and development in Indonesia is a great opportunity that must be optimized to encourage urbanization and sustainable transformation of the city.

From this perspective, Indonesia must truly understand and take advantage of the various opportunities that arise from the urbanization and transformation process that occurs. As the spirit of The New Urban Agenda/The NUA (2016) document is "... capitalizing opportunities of urbanization" encourages us to no longer see urbanization as something negative, but rather a view that should be more optimistic and open. Urbanization and urban transformation opportunities in Indonesia should be seen as an effort to prosper the entire nation while also maintaining Indonesia's environment and sustainability.

Leveraging Urbanization Opportunities and Ensuring Sustainable Urban and Transformation

With an overview of the level, process, context, and challenges of urbanization and urban development in Indonesia as described above, the next question is how we then address the inevitable process. In the 1960s-1970s, we still remember that policy-making attitudes and even some academics viewed urbanization and urban development as preventable because they produced more problems than solutions. This attitude is even implemented in some form of policy of limiting the influx of residents into a city.

Perhaps, these attitudes and policies could be understood in the context of those days—during the early urbanization and end of the Cold War and the fall of socialist states that brought and dreamed of 'returning to the village'. However, in the current context, such attitudes and policies tend to be increasingly abandoned. The Chinese state—one of the great socialist-leaning powers of the pre-1960s/1970s era—instead pioneered a more urban development-oriented policy. Officially, even the Chinese Government started development programs by mandating urbanization opportunities and making urbanization a trigger for economic growth, improved welfare, and poverty reduction. The result is tremendous economic progress in China, as well as poverty reduction which reaches a fantastic figure: 500 million.

China may always be different, but some writers and researchers have empirically documented that urbanization and urban environments prove to be highly conducive to competition, entrepreneurship, creation, and innovation, as well as vertical mobilization both socially and economically (Glaeser, 2011). World Bank data (2019) also shows a positive and significant link between increased urbanization and an increase in per capita income. In Indonesia, any 1 percent increase in urbanization will lead to a 4 percent increase in per capita income. In some countries in Asia the impact is even greater, including in Thailand (7 percent), Vietnam (8 percent), and China which reaches 10 percent.

The lesson that can be taken is that although urbanization has so far contributed to the development of the national economy and the well-being of society, those contributions can still be optimized. In other words, the pace of Urbanization of Indonesia has not been offset by the same rapid improvement in development and prosperity. Furthermore, although more than half of Indonesia's population lives in urban areas, Indonesia remains a lower middle-income country. Going forward—especially in order to achieve the targets in SDGs and The NUA and Indonesia Emas 2045—optimization of the contribution of
urbanization to economic growth, increase per capita income, poverty reduction, economic equalization of people, and the overall welfare of Indonesians must be ensured.

It is from these glasses that we must better understand the spirit of The NUA or the New Urban Agenda set by the United Nations in Quito in 2016. In the Habitat III conference—encouraged to further maximize the opportunities that arise from urbanization—further explored the four principles of urban development, namely: 1) inclusiveness; 2) safe; 3) resilient; and 4) sustainable.

Not only because the Indonesian government is a citizen who must and famously always agree with various UN agreements, then we adopt the agreement. Nor is it because we are hosting at Prep-Com Habitat III in Surabaya which prepares the final draft of the Urban New Agenda a year before the establishment in Quito. However, we must believe that the spirit of utilizing urbanization opportunities is just right and should be maximized by Indonesia. With some ‘homework’ on regional inequality, poverty, competition, environmental damage, and vulnerability, Indonesia must adopt, and more importantly, localize the implementation of the New Urban Agenda for the benefit of Indonesia.

In 2045, Indonesia will celebrate the 100th proclamation of 1945 – Indonesia Emas, the golden Indonesia. As the name suggests, of course we want to realize the golden age of Indonesia in that year. A golden age in which Indonesia is increasingly dignified, strong, prosperous, just, and sustainable.

Urban Research Forum: Inclusive Platform Dedicated for Sustainable Urban Transformation in Indonesia: Toward Indonesia Emas 2045

Enhancing sustainability of urban transformation in Indonesia requires looking at a city holistically: understanding the systems that make up the city and its interdependencies and risks they may face. By strengthening the underlying fabric of a city and better understanding the potential shocks and stresses it may occur, a city can improve its development trajectory and the well-being of its citizens. With that being said, a city needs to engage a broad range of stakeholders to understand its context holistically.

One way to understand the dynamics of urban transformation in Indonesia can be achieved through research and innovation development, which is undertaken by extensive stakeholders cross-level as well as cross-disciplines. For this reason, Graduate Program of Urban and Regional Planning Universitas Gadjah Mada (MPWK-UGM) established Urban Research Forum – an inclusive research platform, facilitating academia, scholars, professionals, and policy makers to share and to enrich their knowledge and experiences on Indonesian urban transformation.

One of its main activities is organizing regular online seminar, under a general idea of “Sustainable Urban Transformation in Indonesia: Towards Indonesia Emas 2045”. The objectives of Urban Research Forum Seminar Series are: 1) To explore potential research ideas from first-hand experiences of extensive Urban Stakeholders; 2) To improve capacity of urban researchers and to bridge the gap knowledge and experiences with practitioners and policy makers; and 3) To promote sustainable urban transformation in Indonesia.

On August 18, 2020, the first online seminar was successfully done participated by more than 400 participants – showing how great and enthusiastic are all stakeholders related to urban planning and development in Indonesia. In that seminar, entitled “Research Agenda on Sustainable Urban Transformation in Indonesia: Beyond Pandemic Covid-19 and The New Normal,” Dr. (H.C.) Ir. H. Suharso Monoarfa - Minister of National Development Planning of Indonesia, has delivered his views on sustainable urban transformation in Indonesia. He stated that it is very crucial to look at a more longer and broader perspective on Indonesia urban future. The dream for Indonesia Emas 2045, could only be achieved if we can guarantee sustainable urban transformation in Indonesia.

At the same time, sustainable urban transformation in Indonesia can only be guarantee, if it is supported by more research and knowledge on urban transformation process in Indonesia. He suggested that there are at least six main topics to be explore for helping us to guide sustainable urban transformation in Indonesia (Table 2).
Table 2. Potential Topic for Research to Support Sustainable Urban Transformation in Indonesia

| National Long and Medium Term Plan: | National Urban Policy 2045: | Metropolitan: |
|-----------------------------------|-----------------------------|---------------|
| 1) Frontier technologies (AI, digital technology, cyber security, advance materials, defense and security, etc.) | 1) Inclusive urban design (cities for all: women, child, disabled, elderly, poor) | 1) Housing Affordability Index for Metropolitan Areas, urban land, TOD |
| 2) National Health System Reform | 2) Private cities integration | 2) Metropolitan Area Leading Sectors in the national logistics system context |
| 3) Social Safety Net Reform | 3) Urban planning reform to support investment | 3) Study of Future Urban Agricultural Concepts |
| | 4) Migration, urban poor, and resolving urban disparities | |
| | 5) The Role of Small and Medium Cities to support tourism and industrial sector | |

| Smart Cities: | Urban Infrastructure: | Supporting Topics: |
|---------------|---------------------|------------------|
| 1) Smart urban services | 1) Urban mobility & integrated intelligent transport system | 1) Urban heat island |
| 2) Urban digital governance and inclusive participation | 2) Smart Grid Water Management, | 2) Post-oil/post-mining cities |
| 3) Smart Cities and City Branding: How ICT Impacts Urban Development and Representation? | 3) Smart Grid Energy Management | 3) Managing rural-urban reclassification and societal transformation in urban culture |
| 4) Concept of inclusive economy in the smart city era | 4) Smart grid system and energy conservation management, lightweight structure for mass transportation | 4) Urban Ecological Footprint |
| 5) City cluster concept in preventing urban sprawl | | |

Source: Minister of National Development Planning, PPT Presentation on URF, 18 August 2020

Built on the very succesful first seminar on August 18, 2020, URF will organize the second online To continue the very successfu-first seminar on 18th of August, 2020, we will organize the second online seminar entitled “Urban Planning in The Era of Disruption: Towards Indonesia Emas, 2045” on September 15, 2020. This will then followed by monthly online seminar on: Climate Change and Disaster: Implications for Indonesia Cities (October, 2020); Urban Heritage/Conservation and Urban Regeneration in Indonesia (November, 2020); and Regional Development Corridors: Urban-Rural Linkages (December 2020). It is hope that through these online seminar series, we could consolidate ideas and collaborations among stakeholders working on urban planning and development in Indonesia. Such ideas, knowledges, and experiences will then helping us to ensure sustainable urban transformation, toward Indonesia Emas 2045 – a properous and just society.
References:

BPS. 2018. Statistik lingkungan hidup Indonesia 2018. Jakarta

Monoarfa, Suharso. 2020. Urban Development In Indonesia: Potential Field For Research. PPT Presentation delivered at Urban Research Forum UGM 2020, August 18th 2020.

World Bank. 2019. Time to Act: Realizing Indonesia’s Potential. World Bank Group. Jakarta.