

**LIVABILITY MEASURES AS STANDARD, NORMS AND PROCEDURES OF PLANNING PROCESS FOR INDONESIAN CITIES**

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INFO ARTIKEL	ABSTRAK
Diterima 2 November 2020 Diterima dalam bentuk revisi 15 November 2020 Diterima dalam bentuk revisi 20 November 2020	This article examines the adoption of livability at a conceptual level into the Indonesian national planning practice as the country is facing the height of urbanization. Connection between the two is examined through the analysis of theories of livability, state of urbanization and livability of Indonesian cities, and existing norms, standards and procedure in planning for Indonesian cities. The paper intends to introduce the need of adopting the concept of livability into the planning due process expected to systematically eliminate vested interests, political clout and subjectivity, which in turn will make livability itself as tool to measure well-being of a city.
<b>Kata kunci:</b> livable cities; livability; statutory plan; planning process	

**Pendahuluan**

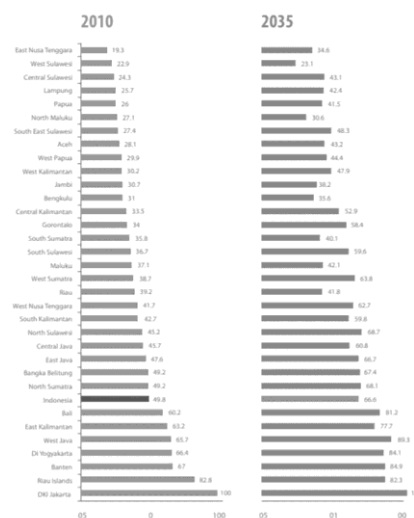
The challenges for societies and cities to cope with changes and at the same time preparing for the impact of urbanization, climate change, commercialization and digitalization are immense. Democratization, regional geopolitics and the presence of raising new major economies, are shaping how cities are governed, planned and managed.

Readjustment of policies to cope with changes are often a dominant feature in cities around the world. Following rapid urbanization, contemporary urban issues and its constant growth in scale, are now shaping a new paradigm of planning process for the future. The constant pressure to avoid expulsions of essential activities and to side for the city poor is becoming dominant, as tens of millions of the planet’s citizens are becoming a new generation of urban residents.

Urbanization refers to the proportion of the total national population living in areas classified as urban, urban growth strictly refers to the absolute number of people living

in those areas (Tacoli et al., 2015). The United Nations has also recently projected that nearly all global population growth from 2017 to 2030 will be by cities, with about 1.1 billion new urbanites over the next 10 years (Cohen, 2015).

**Figure 1 Indonesian Urban Population Projection**



Source: Jones, G, 2014

Indonesia’s urbanization is among the most rapid in the Asia pacific region. Indonesia has the third-largest urban land in

East Asia, after China and Japan. Between 2000 and 2010, the amount of urban land in Indonesia increased from about 8,900 square kilometers to 10,000, or 1.1% each year. It is the largest increase in absolute amount of urban land after China (Hernandez, 2017).

Urbanization in Indonesia will proceed at the fastest pace over the next quarter of a century. While half the population was already living in urban areas in 2010, this is expected to reach two thirds by 2035. There will remain enormous interprovincial differences, however. By 2035, 90 per cent of those living in Java, west of the West Java-Central Java border, will be urban dwellers. This massive urban population of 76 million will be concentrated mainly in the twin mega urban regions of Jakarta and Bandung; in contrast, less than 40 per cent of the populations of East Nusa Tenggara (NTT), Sulawesi Barat and Maluku Utara will be living in urban areas. (see Figure 1)

Greater Jakarta megapolitan as Indonesia's most primate urban conurbation is the second largest urban agglomeration in the world with over 30 million population will be the driver of urbanization in Indonesia. It hosts a range of alarming phenomena such as inundation, sea water rise, waste generation, as well as massive land grabbing and inequality. It adds to the list of cities in Southeast Asia that act as dynamos fueling its economy and generating most of its production, consumption, and trade. Today there are more than 230 cities across the region, each with more than 200,000 people—and they contain a multitude of languages, ethnicities, religions, and cultures. They collectively contain one-third of the region's population and drive more than two-thirds of its economic growth (Illanes et al., 2018). As a country with a geographical feature consist of 17,000 islands around the equator, Indonesia economic transformation involved the Jakarta megapolitan as its major driver of urbanization. At the same time, the

Gross Domestic Product (GDP) in Indonesia was worth 1119.19 billion US dollars in 2019, and the economy is gearing up to become the future powerhouse and growth center of the region. With the growing numbers of new middle class and overall urban population in the next two decades, the momentum is right for city governments and planners in Indonesia to shape the future (Hernandez, 2017).

Governments around the world including Indonesia, together with stakeholders has ratified and adopted the Habitat 3 in Quito, which stressed the importance of countries to benefit from a New Urban Agenda and productive urbanization to achieve specifically Goal no 11 Sustainable Development Goals. The Sustainable Development Goals (SDG) identifies specific targets for each goal, along with indicators that are being used to measure progress toward each target. The year by which the target is meant to be achieved is usually between 2020 and 2030. Some of the targets, no end date is given (Assembly, 2017).

The New Urban Agenda argued that urbanization stimulate solutions and policies, through developing regions, reduce gaps and poverty. The target is represented in reduced in slum area, provision of drinking water to city residents and improved Human Development Index.

The programs and policies to achieve SDG targets by local governments in Indonesia are varied. Livability is measured differently and understood differently by cities. Failing to control, managed and direct urbanization will directly affect livability in Indonesian cities.

Decrease in livability of Indonesian cities will have a direct consequence to the economy. Livability in urban areas are manifested in progresses in achieving those SDG targets with a clear orientation towards

spatial plans, a more cybernetics approach and improved service levels.

Indonesian policies on urban planning need to adopt the targets, but it is faced with complexities in coordination between relevant government agencies and ministries. Indonesia is yet to have a specific regulation on urbanization of our cities, regulations on spatial planning, development, sectoral plans such as forestry, coastal and underground, still resides in various different ministries and agencies.

Early hypothesis show that livability index is yet to be adopted and integrated into standards, norms and procedures in planning processes in Indonesia. Imbedding livability as a measure in standards, norms and procedure is expected to systematically eliminate vested interests, political clout and subjectivity, which in turn will make livability itself as tool to measure well-being of a city.

### **Metode Penelitian**

Urban dwellings had been erected, diminish, changed and rebuild throughout history. The Classic Period of Mesoamerican chronology is one important example of how urban areas evolved, decline and collapse. This period is generally defined as the period from 250 to 900 CE, the last century of which is referred to as the Terminal Classic (Andrews IV, 1973).

The Classic Maya collapse is one of the greatest unsolved mysteries in archaeology about the making of ancient cities. Over 80 different theories or variations of theories attempting to explain the Classic Maya collapse have been identified. From climate change to deforestation to lack of action by Maya kings, there is no universally accepted collapse theory, although drought has gained momentum in the first quarter of the 21st century as the leading explanation, as more scientific studies are conducted (Acemoglu & Robinson, 2012).

## **Hasil dan Pembahasan**

### **1. Livability in The Context of Urbanization**

Urban dwellings had been erected, diminish, changed and rebuild throughout history. The Classic Period of Mesoamerican chronology is one important example of how urban areas evolved, decline and collapse. This period is generally defined as the period from 250 to 900 CE, the last century of which is referred to as the Terminal Classic (Andrews IV, 1973).

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Although the spatial patterns of societal collapse are complex, population centers continued in many coastal regions and in the northern Yucatán Peninsula, including as Chichen Itza, Uxmal, and Coba, whereas most states in the central regions collapsed and landscapes were depopulated. The reasons for this spatial heterogeneity in societal disintegration are largely unknown.

Urbanization as a spatial phenomenon refers to the proportion of the total national population living in areas classified as urban, urban growth strictly refers to the absolute number of people living in those areas (Tacoli et al., 2015). Notably, the United Nations has also recently projected that nearly all global population growth from 2017 to 2030 will

be by cities, with about 1.1 billion new urbanites over the next 10 years (Cohen, 2015).

The development effects of urbanization and the magnitude of agglomeration economies are very variable. There is no simple linear relationship between urbanization and economic growth, or between city size and productivity. While urbanization often has the potential to promote economic growth, the extent to which this potential is realized is likely to depend on how conducive the institutional setting is and how appropriate the investments in public infrastructure are. Removing barriers to rural–urban mobility may enable economic growth, but the economic benefits will be much larger with supportive policies, markets and infrastructure investments (Feler & Henderson, 2011).

Many cities worldwide currently suffered from chronic issues and challenges. The immediate challenges include shifting of local population, the rapid growth of technology, up and down turns of economic situation, and citizens dissatisfaction. It led to the rise of innovative interventions with the objectives to improve the condition of cities.

Over years, livability has emerged as an important concept in the field of planning. Increasingly, policy and community planning initiatives at all levels of governance use the term livability often in describing a wide array of contexts such as transportation, community development, resilience, urban design and more.

As cities, urbanization and globalization is becoming a known structure, it is fair to state that it corresponds to the quality of living of its inhabitants. In the case of Indonesia, at

least more than 40% of residents of Indonesian cities feels that their cities are less livable. Top five reasons of low livability include lack of pedestrian facilities, risk of flood, traffic, pollution and lack of public participation in planning (Kristarani, 2017).

The concept of making cities livable is still lacks a unified definition. It can be inferred from various studies that the concept ranges at different scales (individual, neighborhood, city and country) in multiple disciplines such as ecology, geography, sociology and urban planning.

Though the term is often used in plans, the concept of livability has several definitions. Implicit definitions emerge from the term's usage. Usages of the definition varies, understanding the ways in which livability is used by planners and communities. As it is used today, livability first made an appearance in the 1950s. The concept of livability took hold as a powerful linguistic tool in Vancouver with The Electors Action Movement (TEAM) (Kaal, 2011).

Livability to planners and urban designers are particularly mainly related to streetscapes and transportation. (Appleyard et al., 1981). In the United States, the concept of livability gained significant traction in 2009 as a set of guiding principles from the new Partnership for Sustainable Communities (PSC), a collaboration between the U.S. Department of Housing and Urban Development (HUD), U.S. Department of Transportation (DOT), and the U.S. Environmental Protection Agency (EPA) (Gough, 2015).

A livable city is defined as having a comfortable environment and atmosphere as a place to live and work based on various physical and non-physical aspects such as urban facilities, infrastructure,

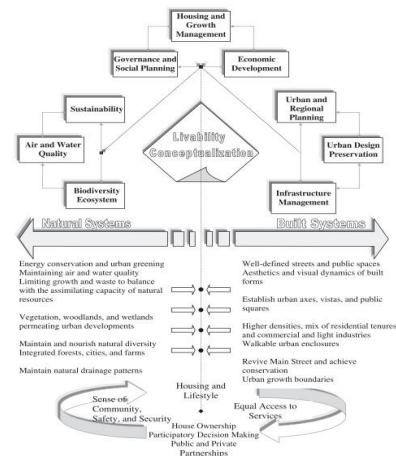
spatial planning, social relations or economic activities.

The livability index measures residents' level of satisfaction with the quality of living in those cities. It could serve as an indicator of a city's success in creating livable community. The livable community can be defined as one that has affordable and appropriate housing, supportive community features and services, and adequate mobility options, which together facilitate personal independence and the engagement of residents in civic and social life.

(Hahlweg, 1997) defines a livable city is "The livable city is a city for all people" or a city that can accommodate all urban community activities and is safe for all people (regardless of social status). Then according to (Timmer, Vanessa dan Seymour, 2006) the definition of a livable city refers to an urban system that makes physical, social, mental and personal contributions to its residents.

Despite the wide-ranging and relatively subjective interpretations of the latter constructs, numerous indices and measurement tools were developed over the last three decades to rank cities according to the amenities and opportunities afforded to their residents and visitors. Safety and security, crime, climate, transportation, infrastructure, healthcare, public policies and services, business environment, cost of living, recreational amenities, education, housing, gross domestic product (GDP) per capita, sanitation, culture, air quality, and natural capital have been incorporated into quantitative models to compare and rank these cities (Kashef, 2016).

**Figure 2. Urban Livability Conceptual Diagram**



Source: Kashef, M, 2016

According to the Indonesian Association of Urban and Regional Planners (IAP), the basic principles of livability are: 1) Availability of basic needs of urban communities (adequate housing, clean water, electricity network, sanitation, adequate food, etc.). 2) The availability of various public and social facilities (public transportation, city parks, worship facilities, health facilities). 3) The availability of public spaces and places to socialize and interact between communities. 4) Security and safety. 5) Environmental quality 6) Support for economic, social and cultural functions. 7) Aspects of community participation in development

In the Indonesian context, livability as measures and indicator of planning outcomes, are not commonly found in statutory plan documents such as Rencana Tata Ruang Wilayah (Masterplan) or transportation plans. Livability is frequently used only as a categorization of physical and socio-economic targets.

Livability level are perceived differently by different stakeholders, including that of the residents. The availability of basic infrastructure and public service are most often main element. Each city government will

always strive to achieve the service level to its population with the objective to create a more vibrant and inclusive living spaces.

Hence, livability is an elaboration of quality of life and it create the reality of urbanity. Livability in time will contribute to economic development, better environment, healthier society, eradication of poverty, as well as preparedness for disaster. Urbanity as a result, is the reason people move and transfer from rural to urban, in search of new social status and better recognition of rights and welfare.

There are few initiatives and indexes to measure livability including OECD Better Life Index, Mercer Quality of Living Survey, Monocle Magazine's Most Livable City Index, The EIU Global Livability Survey, and Forbes Livable City Index. Most of this survey were founded with a single objective to rank cities in order to measure competitiveness of cities. There has not been any specific livability survey done in order to develop indicators of sustainable development of each of the city. Moreover, none of the surveys represent the perception of the population of the measured city.

This paper will study the Indonesian Most Liveable City Index established and run by the Indonesian Association Urban and Regional Planners (IAP) in 2009, 2011, 2014 and 2017. The paper is targeted to identify the foundation of liveability measure in order to improve service levels in the planning practice in Indonesia.

**2. Adopting Livability in The Indonesian Planning Due Process**

In the Indonesian context, the Ministry of Home Affairs Decree no 2/1987 define small city is with a population of 20.000 to 50.000. Mid-sized city 50.000 to 100.000, big city between 100.000 and 1.000.000. For the purpose of

this study, we will look at metropolitan, defined as 1.000.000 to 5.000.000 and a megapolitan, with population of over 5.000.000.

The Indonesian spatial planning process is mainly governed under the Law no 26/2007 on Spatial Planning. Planning process for masterplans, detailed plans and zoning regulations are further enacted in more detail for implementation under the Minister of Land and Planning decrees no 16/2018 on Guidelines for Detailed Plan and Zoning.

The research shows that top seven cities still dealt with classic problems surrounding their transportation systems, infrastructure quality and high cost of living. This survey is conducted to measure the resident's quality of living, not to compare one city to another, 2009 and 2011, 37% and 35% respectively Indonesian citizens felt their cities were not livable.

Jakarta as the biggest city in Indonesia as the capital of Southeast Asia's largest economy is only categorized as mid tier city in Livability Index, according to 2014 IAP Most Livable City Index. The Index, which involved 1,000 respondents in 17 cities across the country, was compiled by the Indonesian Association of Planners (IAP).

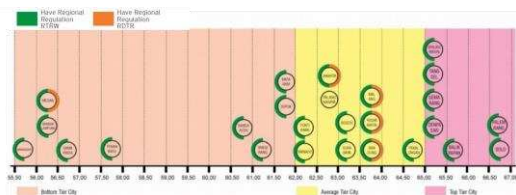
**Figure 3. IAP Most Livable City Index 2017**

TOP TIER CITY	AVERAGE TIER CITY	BOTTOM TIER CITY
1. Solo (66.9)	1. Pekanbaru (64.7)	1. Pontianak (62)
2. Palembang (66.6)	2. Bandung (63.6)	2. Depok (61.8)
3. Balikpapan (65.8)	3. Yogyakarta (63.6)	3. Mataram (61.6)
4. Denpasar (65.5)	4. Malang (63.5)	4. Tangerang (61.3)
5. Semarang (65.4)	5. Surabaya (63.2)	5. Banda Aceh (60.9)
6. Tangerang Selatan (65.4)	6. Bogor (63.2)	6. Pekanbaru (60.8)
7. Banjarmasin (65.3)	7. Palangkaraya (62.9)	7. Samarinda (60.5)
	8. Jakarta (62.6)	8. Bandar Lampung (56.4)
	9. Manado (62.5)	9. Medan (56.1)
		10. Makassar (55.7)

The survey found that several major cities are not categorized as top tier cities. The capital city DKI Jakarta, only remains at the bottom of the average tier cities category. The survey also found that higher GDP of an area is not directly guarantee as higher level of livability of

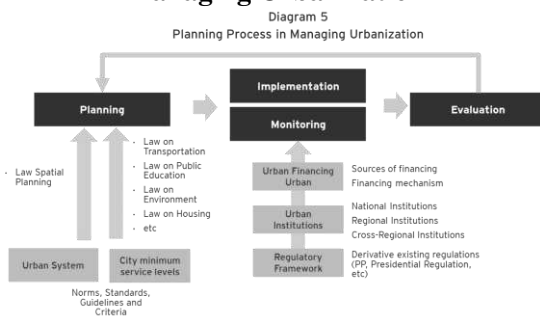
that area. For example, DKI Jakarta and Surabaya, which have the largest GDP per capita, are only in the average tier cities group. Solo, as sitting at the top of the index, has a GDP per capita of only 800 thousand rupiah per year. In addition, no cities with a population of more than 2 million are in the top tier cities category. Metropolitan cities such as Jakarta, Medan, Surabaya, Bandung and Makassar are yet to be in the top tier category.

**Figure 4. IAP Most Livable City Index**



The current Indonesian planning process in managing urbanization is as follow in Diagram 5:

**Figure 5. Planning Process in Managing Urbanization**



Livability of a city is subjective to each residents and stakeholders, City governments that strive to meet residents and stakeholders' expectations are mostly done in improving productive urbanizations, create vibrant neighborhood and improved inclusiveness.

There is a gap identified as livability is missing from the standard and norms of planning process as governed by the Minsiterial decrees. Hence, statutory plans are not explicitly have livability as minimum service level of the city.

Since its inception in 2009, the survey has been extended to 26 cities in

Indonesia, and the indexing of cities are based on at least 28 criterias (Kristarani, 2017) Through this survey we are able to categorized Indonesian cities in 3 main categories top tier cities, average tier cities, and bottom tier cities.

There need to be further investigation to develop the index in order to achieve the outcomes to be adopted as defining indicators in the Statutory Plan norms and standards. Hence further study needs to be done to elaborate and improved the index formulation, criterion of perception and perceived values, as well as a finer methodology to adopt the index into the Norms, Procedure and Minimum Service Level formulas.

To answer the early hypothesis, qualitative and theoretical references suggests that there is a compelling need to establish a new livability measures to be adopted into the standards, norms and procedure, in order to better reflect the perception of the population. To do so, the 7 categories and 28 criteria in MLCI must support foundation of sustainable city development.

As a measurement of sustainability, urban carrying capacity is an important guideline for any city governments in promoting sustainable urban development, which is the path to achieving the SDG Goals. Furthermore, the concept of enhancing democracy and community empowerment in planning is important to ensure inclusive practices. Through this practice, preservation of local endowment is, which is particularly important in urban regeneration, retrofits and revitalization planning. Livability of cities will also require an imbedded principle in plan making, design policy and guideline formulation and development control in planning systems at various stages of development. Hence, a strong and sound policies is needed to ensure urban

development is focused toward achieving community vision, achieve integration of planning and zoning, and ensure substantive urban planning principles and due process. This can be achieved by way of improving the standards, norms and procedure in the process.

A proven methods of urban planning interventions need to be applied in order to lead towards sustainable development. A smart and prompt interventions are based on sharing as common objectives the improvement towards its sustainable development. Some of the solutions applied are the smart city solution and applications, more stringent building restrictions, traffic arrangements, pedestrianizations, public utility network improvement, architectural interventions

**Figure 6. Indonesia Livability Measures**



Figure 6 shows a diagram of the Livability Measurement concept. This concept can be adopted and integrated into standards, norms and procedures in planning processes in Indonesia. Imbedding livability as a measure in standards, norms and procedure is expected to systematically eliminate vested interests, political clout and subjectivity

**Kesimpulan**

Rapid urbanization has impacted the livability dimension of the urban development

in Indonesian cities. In order to transform urban context into more safe, healthier and livable environment, the concept of livability came up as a solution. Indonesian government’s policies towards managing urbanization are still very much on ad-hoc basis, mostly segregated by sectoral silos, and lack of adoption of urbanization key features such as livability. At the same time, some 70 million inhabitants are transforming to become urban dwellers within the next 30 years. The existing regulations on planning are not necessarily based on a larger theme of urbanization, and this has reflected in a basic, infrastructure biased standards, norms and procedure.

A multi-dimensional and multi sectoral approach is required in setting up a livability measures to be adopted into standards, norms and procedure of planning due process. The perception-based Indonesian Most Livable City Index is an important aspect to develop measurements that will act as stick-yards in measuring city well being. This can be proposed as the Indonesian Livability Measures, which is base on 4 key pillars: 1) Sustainable development based on carrying capacity 2) Preservation of local endowments 3) Strong and sound policies, and 4) Proven methods of planning interventions.

As this paper serves as preliminary research, a further sturdy is required to elaborate and develop the concept and tested in the next Most Livable City Index perception surveys un Indonesian cities.

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