

## ARTICLE

# GROWTH OF A METROPOLITAN CITY; JAKARTA

Nandang Najmulmunir\*

Lecturer, Universitas Islam 45, Bekasi, INDONESIA

### ABSTRACT

Indonesia was recently categorized as a newly industrialized country. Jakarta is the country's capital and is the center of economic and political dynamics of the country. The capital city is also a gateway to the rest of Indonesia which is a result of its Geographical location. The city has undergone significant changes in developmental level over the last decade and is currently one of the most eminent metropolitan cities in Asia. This development which dates back to the 14th century is affected by a variety of factors including; climate, political factors, population density, infrastructural aspects related to governance and the neighboring regions to the metropolitan city. This study aims at evaluating these factors with a major focus being on Jabodetabek an abbreviation derived from Jakarta, Bogor, Depok, Tangerang, and Bekasi. The study entails a thorough analysis of literature that is related to growth and development of the region. The factors analyzed are categorized separately, and the impact of each factor to regional development is identified. Negatively impacting factors will be identified and reported in the study. This will provide qualitative data on each of these factors and can be used in other studies as the basis of quantitative analysis of the impacts of these factors.

### INTRODUCTION

Jakarta, Bogor, Depok, Tangerang, Bekasi, abbreviated as Jabodetabek form a unique metropolitan region of Indonesia known as the Greater Jakarta and constitutes an important economic region of the country [1-3]. The region was formerly known as Djakarta or Batavia until 1949. Jakarta city which is the capital is surrounded by this area making it a megacity referred to as Greater Jakarta. In the early 1970's the region was known as Jabotek until "De" was introduced to include five municipalities which are those constituting Jabodetabek and the Cianjur Regency was incorporated in the 2011 making up Jabodetabekjur [1,4]. The region has an area of 6392km<sup>2</sup>, and according to a census conducted in 2014, it has a population of 28 million, and by 2014, the population is estimated to have grown to over 30 million [5]. Jakarta is home to over 300 different ethnic groups of Indonesia making it widely diversified in culture and social practices. The region has seen uninterrupted growth over the last 30 years, and this has made it the center of government, a significant economic power to the country, an educational center owing to a large number of research institutions in the country and a tourist attraction center. The region is the premier center for commerce, manufacture and finance of Indonesia due to its economic power. The region accounts for 25.52% of the total national gross domestic product of Indonesia and accounts for 42.8% of the total GDP of Java Island [6]. The rapid development and economic power of Jabodetabek are attributed to a variety of factors which are discussed in the literature below.

#### Geographical favorability

The city is located on the west side of Java Islands, and it is at the entrance to Indonesia which makes its accessibility easy. Massive land neighbors it on the northern side which allows more room for expansion [7, 8]. It has a tropical climate with temperatures ranging between 25-31 degrees Celsius which makes it a favorable place for most human activities hence its massive expansion and growth.

#### Well-developed means of transport

There is a strong interaction between Jakarta and the neighboring metropolitan (Greater Jakarta) due to well-developed transportation networks. Air travel is facilitated by Soekarno Hatta International Airport which is also referred to as Cengkareng Airport (CGK) and Halim Perdanakusuma International Airport which mainly serves the civilians of Jabodetabek. South Tangerang airport acts as an oil transportation airline besides being used by the army [8,9,10]. Railway network is also a factor that promotes the development of the Megacity. Jabodetabek is served by five major lines which include; the Bogor-Jakarta Kota line which is the busiest rail road, the Bogor- Jatinegara loop line which has six major terminals. The Bekasi- Jakarta Kota rail road which is the second busiest line and has four major terminals, the Maja- Tanah Abang line has four major terminals, and the Tangerang - Duri line with two terminals. This rail network serves as a means of lowering congestion at bus stations and airports. Bulk transport is also made easier by the well-organized network [1, 4]. Bus transport system is well developed in the region [11]. The region has 12 active corridors which serve as the Trans Jakarta bus rapid transit also known as the bus way. Plans are underway to construct three more bus ways [2,7].

#### Link between metropolitan and micropolitan regions

Jakarta city as a metropolitan is well linked to the surrounding minor regions which form the metropolitan area. These are the regions abbreviated as Jabodetabek. This linkage creates The Greater Jakarta, a megacity that is surrounded by other fast developing regions [12, 13]. Unlike Jakarta, other parts of Java islands lack a

#### KEY WORDS

Growth, infrastructure,  
Jakarta, metropolitan,  
transport

Received: 5 June 2017  
Accepted: 25 Aug 2017  
Published: 31 Aug 2017

#### \*Corresponding Author

Email:  
nanduz2017@gmail.com  
Tel.: +62-81382293429  
Fax: +62-21 8801192

clear link between major and minor cities which can be described as the underlying reason for a slower growth when compared to Jakarta.

### Jakarta watershed

Jabodetabek region is surrounded by natural water sources which are also a similar case to other Java islands. This predisposes the region to flood considering the daily evening showers which occur in the region [14, 15]. This watershed is, however, advantageous in times of minimal rainfall and serves as the primary source of water for the Jabodetabek region [4]. The watershed also serves as a reservoir besides providing water to the megacity. It has undergone construction recently to include canals such that during floods, excess water is lost through them minimizing outflow into the metropolitan region [3, 16].

### Jakarta population

Jakarta region is one of the most populous cities in the world [10, 17]. Its approximate population was estimated to be over 10 million people in 2016. The metropolitan area of Jabodetabek has a population that exceeds 30 million inhabitants over the available square area of 1693 square meters. This population has grown from 8.2 million in the year 1970 to the over 30 million people in 2016. The ever growing population is starving the resources of Jabodetabek [10, 18]. It exceeds the estimated population and the governmental resources allocated to the region. It is estimated that by 2020, the problems of Jakarta will intensify with an increased population from 25 million to more than 35 million [16]. The large population has its advantages despite the associated disadvantages. Among them are automobile industries, transport sector, and bio medic.

### Setbacks in greater Jakarta `s development

The watershed surrounding the region is advantageous but predisposes the metropolitan region to flood. Every year the region of Jabodetabek is faced by annual floods which are accompanied by massive destruction of property and infrastructure [5,14,15,19]. The residents surrounding the region are poor and every year statistics report their migration to areas that are less likely to flood. This is likely to result in a significant drop in the development rate of the region as well as drive away foreign investors from the region due to fear of natural calamities. Another setback is related to the high population in Jabodetabek. The region has the largest number of foreign Chinese and other people from Asia [7, 12, 13]. This overwhelms the natural resources of the region and leads to over-exploitation of the available resources. An example that is evident is the encroachment of people and human settlements towards the watershed. Yearly, the number of people settling on the shores of the natural drainage increases and this predisposes them to flood effects and displacement. There is an issue in the planning and implementation of various infrastructural programs by the Indonesian government over the Jabodetabek region [2,3,5]. This occurs through the failure of governmental organizations to meet the set deadlines for implementing various programs. The central and regional governments of Indonesia seem to lack the required team approach in managing developmental projects over the megacity region which slows down expansion [2, 16, 20, 21].

## MATERIALS AND METHODS

The study involved an analysis of different literature to identify the factors that have been affecting the growth of Greater Jakarta region and the entire Jabodetabek megacity. The study also entailed focused group discussions with authorities and government representatives of Jakarta, West Java, Banten, Bekasi, Depok City, and the city of Bogor, Tangerang City, Bogor, Tangerang, and South Tangerang City, also with the Ministry of Home Affairs, Ministry of Forestry and Ministry of Public Works. This occurred between the months of March and August 2014. The responses given by the authorities were well recorded in written formats as well as those obtained from the different literature sources. The search words that were applied in identifying the research journals were; Jakarta, Jabodetabek megacity, Greater Jakarta, and growth of Jakarta. Data obtained was then categorized into various groups which included; factors favoring the expansion of Jabodetabek region, and setbacks to expansion of Jabodetabek megacity. Continuous climate change has the potential of negatively impacting the growth of Jabodetabek. The sea level increase which is a global phenomenon is likely to cause more displacements in the future with increased flooding incidences [9, 13, 16].

## RESULTS

According to the literature analyzed and the responses identified by governmental officials from various ministries, Jabodetabek region has a variety of favorable factors which promote its expansion, but there are a significant number of issues which slow the growth of the megacity despite its current ranking as one of the most fast-growing cities in Asia. Favorable factors include; the well-developed transport and communication networks including railway, bus transport, and air travels. In terms of communication networks, the Greater Jakarta is the fourth most connected city in the world via the LinkedIn network [8- 10]. This makes

communication between one parts of the town to the other easy and positively contributes to its rapid growth and advancement.

The city has a well-developed connection with its neighboring municipalities and regencies [15]. Unlike other regions in Java Islands, Jakarta city is surrounded by other parts, and their growth is interdependent with that of Jakarta which has eventually resulted in the development of a megacity. Its geographical characteristics also promote its rapid development compared to other regions in Asia [5,16]. It is located at the entrance of Indonesia which makes its accessibility easy as well as developmental projects initiated by investors [17]. The climatic condition of the region is favorable for most human activities and businesses, and this attracts more people to the region. The metropolitan region has an ever increasing population [21, 22]. This occurs due to immigration with most of the immigrants being the Chinese. They provide skilled labor in the industrial sector of the city as well as business related investments.

Tourism acts as a source of revenue for the region with tourists being from different regions including Europe and Asia [20]. The watershed surrounding Jabodetabek is both advantageous and a disadvantage to regional growth and development. During floods, the high population which some has settled along the water margins is displaced. The watershed, however, serves as a source of water for the megacity. Governmental efforts to combat the annual flooding in surrounding areas have been initiated such as the construction of canals to allow runoff of excess water. Water supply cannot match the demand which continues to increase [5,9,14]. For example, in Jakarta is estimated that lack of clean water for 10099 liters per second at 2015. This negatively impacts the growth of Jakarta and predisposes residents to health risks.

## CONCLUSION

Jabodetabek region is highly advanced regarding growth compared to other cities in Asia. The rapid growth could be attributed to a variety of factors as discussed [8, 23]. The city, however, faces setbacks which might slow down this progress in development if not well combated. The research did not clearly quantify the effects of the analyzed factors in the growth and development of Jabodetabek. This calls for further research which should be quantitative in nature to identify the contribution of each of the analyzed factors as a percentage towards growth either positively or negatively.

### CONFLICT OF INTEREST

No conflict of interest to declare

### ACKNOWLEDGEMENTS

None

### FINANCIAL DISCLOSURE

Self-funded

## REFERENCES

- [1] Cynthia Henny, Ami A. [2014] Meutia, and Urban Lakes in Megacity Jakarta: Risks and Management for Future Sustainability, doi: 10.1016/j.proenv.2014.03.088, pp. 737-746.
- [2] Firman T. [2004] New town development in Jakarta Metropolitan Region: a perspective of spatial segregation. *Habitat Int.* 28:349–368.
- [3] Abidin HZ, Andreas H, Gamal M, Gumilar I, Napitupulu M, Fukuda Y, Deguchi T, Maruyama Y, Riawan E. [2010] Land subsidence characteristics of the Jakarta basin (Indonesia) and its Relation with groundwater extraction and sea level rise. In: Taniguchi M, Holman IP (eds) *Groundwater response to changing climate, IAH selected papers on hydrogeology no 16*, CRC Press, London, ISBN: 978-0-415-54493-1, chapter 10, 113–130.
- [4] Colbran N. [2009] Will Jakarta be the next atlantis? excessive groundwater use resulting from a failing piped water network. *Law, Environment and Development Journal*, 5/1, p 18, available at <http://www.lead-journal.org/content/09018.pdf>
- [5] Murdohardono D, Sudarsono U. [1998] Land subsidence monitoring system in Jakarta. In: *Proceedings of symposium on Japan-Indonesia IDNDR Project: Volcanology, tectonics, flood and sediment hazards*, Bandung, 21–23, 243–256.
- [6] Hadiz VR. [2004] Decentralization and Democracy in Indonesia: A Critique of Neo-Institutionalist Perspective. *Development and Change*. 35(4): 697-718.
- [7] Christophe Z. Guilmoto, Gavin W. [2016] Jones (ed.); *Contemporary Demographic Transformations in China, India and Indonesia*, Springer.
- [8] Jaweng Endi Robert, *Overcoming Problems in New autonomy era*, The Jakarta Post, [2014] Retrieved from; <https://www.thejakartapost.com/news/2014/12/22/overcoming-problems-new-autonomy-era.html>
- [9] Firman, Tommy. [2008] In search of a governance institution model for Jakarta Metropolitan Area (JMA) under Indonesia's new decentralization policy: Old problem, new challenges. *Public Administration and Development*. 28: 1-11
- [10] Facts about Indonesia, Indonesia at a glance, [2012] Retrieved from; <https://www.fig.net/jakarta/practical-info.htm>
- [11] Jessicha Valentina, Greater Jakarta Ranked fourth most connected city on LinkedIn, April 25, [2017] Retrieved from; <https://www.thejakartapost.com/life/201704/25/greater-jakarta-ranked-fourth-most-connected-city-on-linkedin.html/>
- [12] Muhammad Rasyid Prabowo, Jakarta Population [2017] Retrieved from; <https://worldpopulationreview.com/world-cities/jakarta-population/>

- [13] Harsolumakso AH. [2001] Struktur geologi dan daerah genangan. *Buletin Geol.* 33(1):29-45.
- [14] Firman, Tommy. [1997] Land conversion and urban development in the Northern Region of West Java, Indonesia. *Urban Studies* 34(7): 1027-1046
- [15] Rustiadi B. [2012] Pembangunan Kawasan Transmigrasi Dalam Perspektif Pengembangan Wilayah & Perdesaan.
- [16] Goldblum, Charles, Wong, Tai-Chee. [2000] Growth, crisis and spatial change: A study of haphazard urbanization in Jakarta, Indonesia. *Land Use Policy* 17: 29-37.
- [17] Singh RB. [2014] Urban Development Challenges, Risks and Resilience in Asian Mega Cities.
- [18] [2013] Willem Johan Waworoentoe, Jakarta National Capital, Indonesia, Retrieved from; <https://global.britannica.com/place/jakarta>.
- [19] Winarso, Haryo, Tommy Firman. [2002] Residential land development in Jabotabek, Indonesia: triggering economic crisis? *Habitat International* 26: 487-506
- [20] Nomura, Ko. [2007] Democratization and environmental non-governmental organizations in Indonesia. *Journal of Contemporary Asia.* 37(4): 495-517
- [21] Leaf, Michael. [1994] The suburbanization of Jakarta: A concurrence of economics and ideology. *Third World Planning Review.* 16(4): 341-356.
- [22] Yong RN, Turcott E, Maathuis H. [1995] Groundwater extraction-induced land subsidence prediction: bangkok and jakarta case studies. In: *Proceedings of the Fifth international symposium on land subsidence*, IAHS Publication no. 234. 89-97.
- [23] Firman T. [2004] New town development in Jakarta Metropolitan Region: a perspective of spatial segregation. *Habitat Int.* 28:349-368.