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ORIGINAL ARTICLE

THE AFTERMATH OF UNSUSTAINABLE URBANIZATION IN SOUTH EAST ASIA COUNTRIES

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ABSTRACT – Urbanization refer as a process of people migrating from rural to urban areas. the process of urbanization in Southeast Asian countries arises due to industrialization and globalization of economic activities. Urbanization provides many job opportunities and consequently invites many rural migrants. The continuous growth of Asean's urban population will endlessly put burden on its sustainability. Combined with the impacts of climate change, these stresses may lead to an unsustainable future for ASEAN cities. A content analysis was also performed to recognize three specific issues related to unsustainable urbanization in South East Asian countries namely housing, health and waste management. The finding of the study discovered that there is a room for expansion in the process of urbanization. The government ought to modernize agriculture, expand agricultural productivity, accelerate infrastructure building in the rural areas, and recognize the integrated development of urban and rural areas.

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URBANIZATION IN ASEAN

Hussain and Imtiyaz (2016) defined urbanization as a process of people migrating from rural to urban areas. According to IFHP (2016), the growth of the urban population happened in line with the growth of the countries' economy. It has been argued that the process of urbanization in Southeast Asian countries occurs due to industrialization and globalization of economic activities that took place in the late 19th century and early 20th century (Mahadevia, 2008). Urban population growth and the increasing proportion of the population living in urban areas in South East Asia (SEA) were strongly interrelated to economic development patterns. Large populations meant higher availability of labor force prone to migrate to places with more employment opportunities. The majority of employment took place in the production and growing service sectors that were concentrated in urban areas. The development of these sectors was shaped in turn by factors of economic globalization, in particular inflows of foreign capital and export-oriented production.

Recently, half of all people in ASEAN are already living in urban areas and an additional 70 million more people are expected to live in urban by 2025. Among the ASEAN countries, Singapore is the highest percentage of the population lived in urban areas, followed by Brunei, Malaysia, Indonesia, Thailand, Philippines, Vietnam, Laos, Myanmar and Cambodia. In Cambodia, the Khmer Rouge took the most extreme position. After taking power in Phnom Penh in 1975, it vacated the urban areas and drove the entire urban population to the countryside where hundreds of thousands died of starvation and maltreatment (Institute of Southeast Asian Studies, 2010). According to Qianqian (N.d), there are three levels of urbanization. The first level is known as a high level of urbanization, which refers to countries such as Singapore, Brunei and Malaysia. The second level is a moderate level of urbanization, including Indonesia and the Philippines. The low level of urbanization includes Cambodia, Laos, Myanmar, Vietnam and Thailand.

The development of SEA in the twentieth century was characterized by extraordinary population growth (Williams and Guest 2012). During the first half of the twentieth century, the population of the entire SEA region grew from an estimated 85 million to 173 million inhabitants, a growth rate of approximately 1.7%. This is considered to be tremendous growth compared to other countries. The population dynamics in SEA can be explained by the demographic transitions – the process of change in the mortality and fertility rates in the region (Hircshman and Bonaparte 2012). During the twentieth century, SEA experienced a significant increase in life expectancy and declines in morbidity and mortality rates. Between 1950 and 2014, the region's urban population increased 11 times from 26 million to 294 million. The region has only two megacities, Manila, which has 11.8 million people, and Jakarta, which has 10 million population. The share of urban populations living in the region's megacities will increase to 13 percent by 2030, when Bangkok and Ho Chi Minh City will attain megacity status (Dahiya, 2014).

War and political turmoil hindered economic development and urbanization in Vietnam and Laos, while by contrast, Singapore enjoyed political stability. Urbanization delivers many job opportunities and therefore attracts many rural migrants. For the poor, especially the poor from rural areas, cities represent more job opportunities, better lives and a way out of poverty (Qianqian, N.d). Southeast Asian cities feel the need to modernize in order to compete with world cities. They replace the traditional shop-houses with shopping malls, and allow McDonald and Burger King to set up shop on every street corner. Cities like Singapore, Bangkok and Hanoi risk losing their unique traditions, and start to look more

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and more like any other city in the world (Institute of Southeast Asian Studies, 2010). However, according to the Institute of Southeast Asian Studies (2010), the nature and the impacts of urbanization and the challenges it brings are, however, not always well understood. Besides, although urbanization is widely seen as a tool for economic growth, and cities as engines for economic development, rapid urbanization has adverse impacts (Abou-Korin and Al-Shihri, 2015). Therefore, the present study seeks to explore the impacts of unsustainable urbanization in South East Asian Countries.

UNSUSTAINABLE URBANIZATION

The constant increase of Asean's urban population will continuously put pressure on its sustainability. Combined with the impacts of climate change, these pressures may lead to an unsustainable future for ASEAN cities (The Straits Time, 2017). McInnes (2013) contends that unsustainable urbanization continues to drive environmental degradation in some parts of the world. Arfanuzzaman and Dahiya (2018) in their study found that the current style of urbanization in Southeast Asia can best be called unsustainable. There are three specific issues related to unsustainable urbanization in South East Asian countries namely housing, health and waste management.

Housing Issues

Access to adequate housing is a fundamental human right enshrined in various international conventions and the constitution of most countries (Cruz, 2008). Public concern over housing affordability is due to the fact that housing is the single largest expenditure in the budget of most families and individuals (Quigley and Raphael, 2004). A house is a home, building or structure that functions as a habitat for humans or other creatures. Apart from affordable, the aspect of comfortable is also important. the low levels of homeownership among low-income urban community in Malaysia show that the problem of poverty is still yet to be eliminated by effective. Urban housing problem in Malaysia that sure is the problem of supply of low-cost housing and affordable was still unable to meet the demand of the urban population in the country. Increase in house prices too high perceived burden buyer low and moderate income (Hamidah Ramlan and Eleeza, 2016). An increase in the number of people in urban areas has caused a housing shortage and the cities becoming overcrowded. When people realized that the cost of renting or buying a house is high, they build illegal shacks in the central city. The environment of the house is poor and exposed to pollution and diseases. According to Ahmad Sanusi (2002), the problem of illegal settlement is uncontrollable. In 2010, it was about 31 percent of people who lived in the urban area lived in the slum area (UN Habitat, 2010). According to Dahiya (2014), urban poverty and inequality are always be associated with slums. It is about 80 million people in South East Asian countries live in such areas. People who are living in slum areas always facing hardships because of poor housing, overcrowding house, a lack of adequate basic services such as safe drinking water, sanitation, solid waste collection, education, health care, electrical power and transportation.

According to the Institute of Southeast Asian Studies (2010), in ASEAN, between 22 to 55 percent of the urban population live in slums. Among the ASEAN Countries, Cambodia is said to have the largest number of people living in the slums area, followed by Myanmar, Philippines, Laos, Vietnam, Thailand and Indonesia. However, the data of slums in Singapore, Malaysia and Brunei were not reported by UN-Habitat. In terms of the urban population living in slums in South East Asia, for example, some 70 million persons in 1990 were in slums and this had risen to 83.5 million persons in 2014 (UN Habitat, 2016). According to Asian Development Bank (2014), slums account for over 75% of Cambodia's urban population, and suffer from extreme shelter and service deprivations. Access to basic services such as piped water within premises is available to 65% of urban households; 13% of the urban households defecate in the open. Many ASEAN cities suffer from a shortage of affordable housing as a result of rapid urbanization and this problem caused people to live in slum areas. When people live in this area, they may be faced with problems such as do not have access to water and sanitation facilities. As a result, they may experience water-borne diseases such as cholera and typhoid that can lead to high infant and child mortality rates (Institute of Southeast Asian Studies, 2010).

Due to several problems that have been mentioned above, the South East Asian governments have made excellent progress in enhancing the slum dwellers' lives. As a result, in 2012, the share of the region's urban population living in informal settlements declined from 49 percent to 31 percent (Dahiya, 2014). Dahiya (2014) further contends that this progress was achieved through five specific strategies such as awareness and advocacy; long-term political commitment; policy reforms and institutional strengthening; proper implementation and monitoring; and scaling up successful local projects. For instance, one of the most successful slum upgrade efforts in South East Asia is Indonesia's Kampung Improvement program.

In Southeast Asia, the governments have addressed housing problems with a variety level of success. Singapore has been the most successful housing project whereby it provided public sector housing with transport links to employment centers (Institute of Southeast Asian Studies, 2010). In addition, according to Siew (2019), Singapore has had a successful history with affordable public housing. Established on February 1, 1960 the HDB (Housing & Development Board) built 54,000 flats within the next 5 years as the initiative has completely transformed the Singaporean urbanscape. Today, over 80 percent of Singapore's resident population is currently residing in HDB flats as they have contributed to the socio-economic growth of this island nation. Meanwhile, in Malaysia, the Central Bank of Malaysia has mentioned that the shortage of affordable housing is exceeding 1 million units by 2020. Between 2012 and 2014, the rise in house prices and a slower increase in household income has worsened the shortfall of housing supply. In Indonesia, there is no systematic public housing program even though the price of the house is kept on increasing and burden the low-income group people. This situation happened because many private developers are less interested to build low-cost housing projects as the

profit that they will gain is low. In Thailand, the affordable housing projects through the Public-Private Partnership (PPP) scheme are carried out to meet the needs of low and middle-income groups.

Health

Urbanization may bring negative impacts on health, especially issues such as increased infant mortality rates (Bertinelli and Black, 2004). Most of the ASEAN countries are having limited financial resources and this situation hinders the public expenditure in health care. In 2015, Cambodia spent 1.5%, Malaysia spent 2.0%, Singapore spent 1.8%, Thailand 1.2%, and the Philippines and Bangladesh spent less than 1% of their GDP in the health care sector. Besides that, according to Dahiya (2014), emissions from transportation, industries, power plants, and residential and commercial buildings cause high levels of air pollution, which is a source of heart disease and strokes. Air pollution is also considered as the major environmental risk factor for some respiratory diseases such as asthma and lung cancer (Weisel, 2002 & Brunekreef et al., 2009). The World Health Organization mentioned that people in low and middle-income countries are extremely affected by air pollution which leads to premature deaths. Dahiya (2014) argued that this situation happened is not because of those countries' lack of environmental policies or law, but the enforcement of the law and policies is questionable.

Southeast Asia had the highest urban ambient air pollution levels worldwide in 2016, with annual mean levels often exceeding 5-10 times World Health Organization (WHO) limits which have been linked to illnesses such as cancer, asthma, and bronchitis. Cities in ASEAN also suffer from a rising proportion of adults with obesity and elevated stress levels. Besides that, the urban poor cannot enjoy urban medical services due to the constraints of health-care conditions, transport, environment, and personal behaviors. Furthermore, urban residents are more likely to suffer from malnutrition or mental illness related to economic or life stresses compared to their rural counterparts (UN Habitat, 2001). Sexually transmitted diseases such as HIV-AIDS, are increasing rapidly in urban areas. The higher prevalence of HIV-AIDS in large urban areas (e.g. Ho Chi Minh City) as compared with smaller urban and rural areas is apparent in many countries (UN Habitat, 2001).

The National Demographic and Health Surveys (DHS) in Indonesia and the Philippines depict that the infant mortality rate is significantly higher in urban than in rural areas. The DHS surveys also show surprisingly lower immunization coverage for measles and diphtheria, tetanus, and polio in urban areas than in rural for the poorest income quintile in the Philippines (World Bank, 2001). In the Philippines, both infant and child mortality is somewhat worse for urban than for rural populations at the lower quintiles. Although there are too many trained doctors located in urban areas, the people in the Philippines are still cannot get access to health care due to high fees. In addition, poor sanitation in Jakarta's slums has led to a higher risk of water contamination, water-borne diseases, and disability. One study reported 342 diarrhea cases out of every 1,000 inhabitants at one squatter colony, and an infection rate of 43 percent in children with at least one type of intestinal worm (The Straits Time, 2017).

Waste Management

Developing Asian countries face serious problems in managing their solid waste (Khajuria, Yamamoto and Morioka, 2008). Rapid economic growth in Southeast Asia has resulted in severe and irreversible environmental issues such as waste, pollution, and atmospheric emissions. Sustainable development must therefore take place to balance economic growth and the environmental impact from development (Muhammad Najib, Norhidayah, Ainur Zaireen & Yim Mei, 2017). One of the major sources of water pollution in ASEAN countries is unsustainable waste management which includes issues such as untreated industrial and domestic wastes (Sim and Balamurugan, 1991).

In terms of total annual MSW generation, the order is as follows: Indonesia generates the highest quantity of municipal waste with 64 million tonnes/year, followed by Thailand (26.77 million tonnes/year), Vietnam (22 million tonnes), Philippines (14.66 million tonnes), Malaysia (12.84 million tonnes), Singapore (7.5 million tonnes), Myanmar (0.84 million tonnes), and Lao PDR generating the lowest quantity of MSW at 0.07 million tonnes/year. Open dumping and open burning of waste is prevalent in the majority of ASEAN countries (UN Envinronment, 2017).

There is an undeniable to the fact that recycling practices are more dominant and successful among developed countries than in developing countries (Charuvichaipong and Sajor, 2006). They also mentioned that in developing countries, currently, the recycling practice is widely promoted as it is able to curb the flourishing of the solid waste problem. It can be proven in developing countries like Thailand and Vietnam. In Thailand, the recycling rate among the citizen was considerably low at 20 percent, even though they have been encouraged to participate in the activity for the last few decades (Ittiravivongs, 2012). The promotion of recycling among the Thailand citizens started, especially in 1997 by the Ministry of Science, Technology, and Environment (Suttibak and Nitivattananon, 2008). During that time, the recycling rate was targeted at 15% by 2006. In Vietnam, the recycling rate practices among its citizens are quite high (Thanh and Matsui, 2011). They added that the recycling activity is already being a common practice among households in Vietnam. The recycling rate in Hanoi is estimated at one-fifth of the total waste materials, which is higher than other Asian cities (Nguyen, n.d). She added that, generally, one of the reasons why recycling activities in this city are high is because many households will give away or sell the waste materials to the used or repair shops.

Singapore, with 100% figures for waste collection and disposal, sanitation, and wastewater treatment, provides a good example of improved urban environmental management in Southeast Asia (Arfanuzzaman and Dahiya, 2019). Arfanuzzaman and Dahiya (2019) further explained that, with regard to providing access to sanitation and wastewater treatment services, Singapore is in a top-notch position among the Southeast Asian cities. In Malaysia, in 2007, the parliament had enacted a law, namely the Solid Waste Management Act (2007) to promote 3R practices among the

citizens. It is administered by the Department of National Solid Waste Management (DNSWM) of the Ministry of Housing and Local Government (Fauziah and Agamuthu, 2012). The Act was formulated to ensure that households will be able to separate the wastes and engaging in recycling activity. In this Act, there is a clause that can be related to the implementation of recycling among the citizens, which is under Clause 74 of the Act. According to Moh and Latifah (2014), starting from 1 September 2011, households are obliged to separate the waste from the house.

The households who refused to do so will be fined RM 1000. The Act was reviewed for 10 years before it was finally approved in August 2007. Under this Act, 1201 waste bins equipped with wheels have been provided in stages (from 2011 to 2014) to households for free by private concessionaires. However, it is only applicable to the states except for Selangor, Penang, and Perak as they have their own approach to managing solid wastes. With that, households are expected to separate their wastes and the collection of wastes was performed by private concessioners by using a 2+1 collection system. The concessionaires will collect the non-recyclable wastes twice per week and once a week for recyclable wastes. Booklets on methods of recycling household waste were distributed to households in managing their wastes (Moh and Latifah, 2014). Mandatory source separation will be able to achieve higher recycling rates and reduce the amount of wastes significantly (Fauziah and Agamuthu, 2012). However, household waste recycling activities are only enforced in a non-regulatory approach in the initial stages (Moh and Latifah, 2014). Understanding and cooperation from households are the foundation of promoting recycling within the community (MHLG, 2006).

However, according to Dahiya (2014), up to 30 percent of solid waste is not collected regularly in many Southeast Asian Cities. Since there is a high concentration of economic activities and prosperities in the urban area, therefore, people who are living in urban areas polluted more than rural areas. On the production side, many industries are urban-based, but they do not produce only for the urban areas, but also for the rural ones (Institute of Southeast Asian Studies, 2010). A common disposal method for solid waste in Southeast Asia is open dumping and landfill. It becomes more and more difficult for urban local governments to find suitable sites within municipal boundaries, and situating a dump or landfill site in a neighboring district is usually completely out of the question. Incineration is regularly mentioned as an alternative disposal method, but the costs of incineration are high (Institute of Southeast Asian Studies, 2010).

Waste recycling rates vary across the region: more than 44 percent in high-income countries such as Singapore, 12 percent in its middle- income nations, only around 10 percent in the rest of ASEAN. There are financial burdens that result from this, at present, cities are spending between 20-30 percent of their city's budget on waste collection and management. Moreover, even though a large portion of a city's budget is spent on waste management, recycling rates are low. For example, in Quy Nhon (Vietnam), the city only has the capacity to convert 1 percent of its waste generated daily. Even Singapore, a leading city in waste management, only recycles 61 percent of its waste. There has been a rapid increase in municipal solid waste being generated (~150 million tons in 2016) since 2000 in ASEAN cities. While cities in ASEAN have taken steps to improve solid waste management, according to the United Nations Environment Protection agency, existing collection, treatment, and transportation of solid waste remain inefficient or backdated.

CONCLUSION

There is a concern that rapid urbanization will shift poverty from rural to urban areas. In the process of urbanization, the government should also modernize agriculture, increase agricultural productivity, facilitate infrastructure building in the rural areas, and realize the integrated development of urban and rural areas. The government should also pay attention to the migrant population and rural workers and respect their rights and interests so that they will not become disadvantaged and vulnerable groups in the city. The government should provide skills training to the unemployed and rural migrant workers. The government also should provide the migrant population, especially rural migrant workers, with targeted job information, develop IT systems and service capacity of employment service agencies, and analyze local employment status and economic growth. In order to decentralize the urban population in Thailand, the Thai government also gives tax incentives to regions outside Bangkok. By doing so, the government hoped to stimulate the development of new industrial centers in Bangkok's neighboring provinces.

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