

Living in Cities: The Relationship between Urbanization and Economic Growth in Thailand versus Indonesia

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Abstract

Being two of the five founding countries of the Association of Southeast Asian Nations (ASEAN), Indonesia and Thailand have greatly impacted the region's economic and political issues. Both countries also have seen massive urbanization over the last few decades and have now large shares of their populations living in urban areas. Though Thailand began the process of urban development much earlier than Indonesia, today, the share of the urban population is higher in Indonesia than in Thailand. In any case, urbanization has helped both Thailand and Indonesia to experience rapid economic growth. This article illustrates and compares the impacts of urbanization in the two nations. It looks into the economic and social benefits as well as costs of rapid population growth in the capitals of these two countries, namely Bangkok for Thailand, and Jakarta for Indonesia.

I. Introduction

Thailand and Indonesia are the two largest economies in the Southeast Asian region and have some of the most populous urban cities. Bangkok and Jakarta are hubs for most social, economic, and political activities. For Thailand, Bangkok is the main center of all activities as well as Thailand's major tourist spot. For Indonesia, Jakarta is one of many centers. In addition to Jakarta, cities such as Bandung and Surabaya are equally large and populous in Indonesia.

Bangkok and Jakarta experienced rapid urban growth and development over the last few decades. This article looks into the effects of massive urban growth and economic development. A comparison between Thailand and Indonesia will be done in order to bring about an understanding of the effects of economic growth on urbanization and vice versa. Furthermore, the greater effects of urban growth on the major cities will be discussed to contextualize urban growth in these two countries. Such effects will mostly deal with socio-economic and environmental factors.

Following this introduction, this article is structured into four sections. The next section provides a brief literature review. The subsequent section examines some empirical background on

socioeconomic development in Indonesia and Thailand over the last few decades, which is then followed by a discussion section. The last section provides some conclusions.

II. Literature Review

Urbanization and economic growth are very much related to each other. Within the last few decades there have been several publications detailing the different effects of economic growth and urbanization in the major cities of Indonesia and Thailand. Socio-economic factors determine the outcomes of urban development and it is clear that the governments of Thailand and Indonesia see urbanization as a challenge. Ayal (1992) and Rukumnuaykit (2015) discuss the impacts of urbanization in Thailand, whilst Firman (2009) and Lewis (2014) focus on Indonesia. Webster (1995) discusses both countries. Despite different foci of these publications, each one looks at the importance of the economy and urbanization in the development of a safe and clean urban environment.

Ayal (1992) focuses on Bangkok, considering urbanization and economic growth to be more or less interrelated to each other. Urbanization may cause economic development but on the other hand, economic progress results in urbanization. Though it may sound confusing, Ayal breaks down 'economic growth' in different terms such as 'economic progress' and 'economic development' which are quite different according to him. Bangkok as the major city of Thailand is noted to be a primacy city, which means that Thailand only possesses one city, whilst other cities have no chance in growing and engaging in urban development. Within Thailand, and Bangkok specifically, urbanization has led to concerns about personal, sectorial, and regional equity.

Rukumnuaykit (2015) discusses the subjective well-being of citizens within Thailand. In essence, urbanization affects the well-being of the Thai people greatly. Although some may find that the urban setting heavily influences the well-being of the people, it does not actually affect them as much as the demographic and societal differences within the population. In this article, well-being is defined and measured by life satisfaction, happiness level, mental score, and illness. Each of these factors is used to determine the greater social effects of urbanization on the population.

Firman (2009) focuses on the socio-economic problems rising as a result of the idea of mega-urbanization in Indonesia. Mega-urbanization is a phenomenon whereby there are large-scale growths in housing projects and tourist resorts with existing agricultural activities. This essentially means that there seems to be some form of integration of rural activities with the urban environment, and thus spawning concerns with the environment and citizens' well-being. In this article, the Jakarta-Bandung region is focused upon as Jakarta and Bandung are the two major cities with the largest concentration of urban population and economic activities in Indonesia.

Lewis (2014) discusses the implications with regards to the relationship between urbanization and economic growth in Indonesia. Lewis states that the level of urbanization is positively associated with economic growth but the rate of change of urbanization is negatively related with economic output growth. This article further examines the importance of infrastructure in urban development.

Webster (1995) focuses on the overall impacts of growth on the urban environment in Southeast Asian countries. Although this article does not necessarily focus on Thailand and Indonesia specifically, there is a lot of information on the major impacts of urbanization on major cities such as Bangkok and Jakarta. Webster also talks about the greater effects of the growing socio-economic environment on the overall infrastructure and lifestyle of urban areas. Furthermore, there

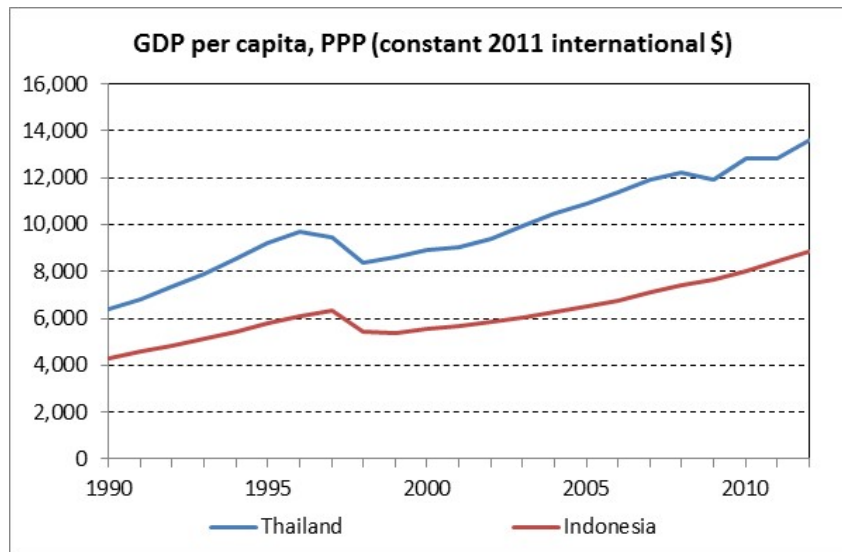
is an in depth look into the problems arising in the urban environment such as pollution, infrastructural issues, issues with governmental investments, and the well-being of people in urban areas.

III. Empirical Background

Thailand is officially known as the Kingdom of Thailand and its currency unit is the Thai Baht. Its economy is heavily based on exports of goods and services, and in 2012, exports constituted about 75 percent of gross domestic product (GDP). Thai exports range from agricultural products such as rice and fisheries, to industrial products such as textiles, rubber, automobiles, and electronic appliances. Thailand has transitioned from being a low-income country to an upper-middle-income country very quickly, experiencing sustained strong economic growth. Indonesia is officially known as the Republic of Indonesia and its currency unit is the Indonesia Rupiah. Its economy is primarily centered on household consumption, which in 2012 constituted about 57 percent of GDP.

Thailand's capital city Bangkok is the by far largest in the country and has grown massively in both size and population. Bangkok, which currently has a population of about 6 million, is the center of Thailand's economic, social, and political activities, making it the most significant city in the country. There are no other cities in Thailand with populations above one million. Indonesia's capital is Jakarta, which is estimated to have about 10 million people. However, Indonesia has several other megacities, including Surabaya, Bandung, Bekasi, Medan, and Tangerang, which all have populations between 2 to 3 million people. Unlike Thailand, Indonesia is not as heavily dependent on one city.

Figure 1: PPP-adjusted GDP per capita in Indonesia and Thailand, 1990-2012



Source: Source: Created by author based on World Bank (2014).

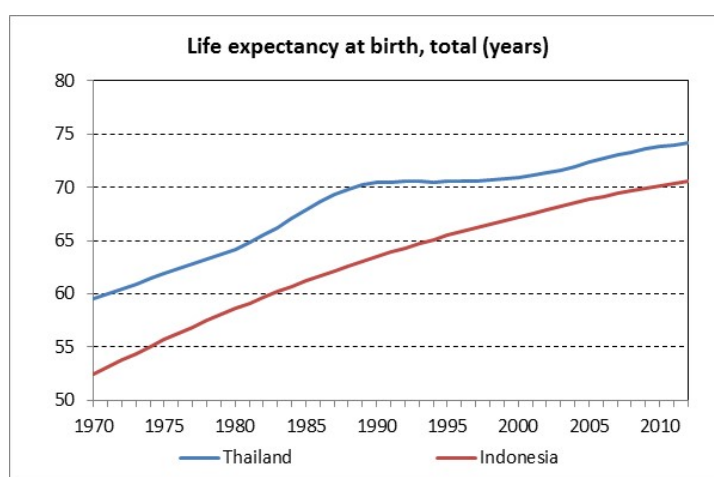
Thailand and Indonesia are quite different economically. Thailand has a considerably higher GDP per capita than Indonesia. However, as seen in Figure 1, GDP per capita in purchasing power parity (PPP) has steadily increased for both countries since 1990, except that there was a) a significant

but temporary decline caused by the so-called Asian Crisis in 1997, and b) a slight decline in Thailand's GDP per capita due to the 2008 world financial crisis.

Over the past few decades, Thailand and Indonesia have become the two largest economies in the Southeast Asian region,¹ with Indonesia being the largest and Thailand the second largest economy. Immense economic growth coupled with social development have allowed the citizens to experience better living standards and an overall increase in socio-economic factors such as life expectancy and literacy rates.

Figure 2 shows that both countries improved the life expectancy of their citizens. In the case of Thailand, life expectancy increased from 59.5 years in 1970 to 74 years in 2012, while it increased from 52 years in 1970 to 71 years in 2012 for Indonesia. However, there are some differences in the growth rates across the two countries. After having grown at similar rates until about 1980, Thailand's life expectancy grew very rapidly during most of the 1980s, after which it stagnated from 1991 to 1997. Indonesia's life expectancy has grown more steadily.

Figure 2: Life Expectancy at Birth (years) in Indonesia and Thailand, 1970-2012

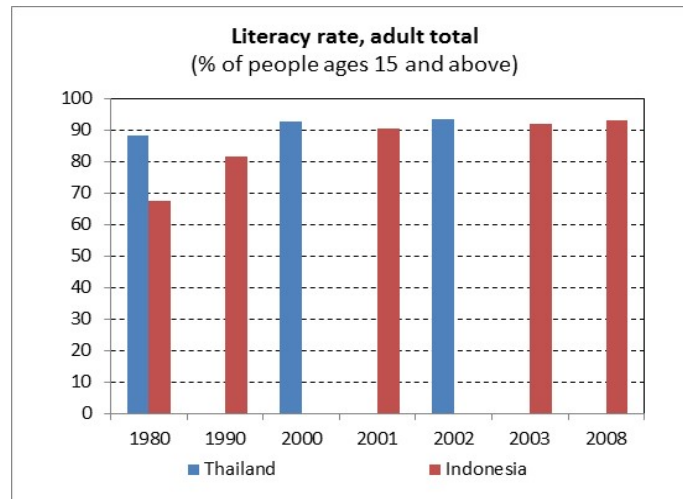


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Despite considerable gaps in data for adult literacy, Figure 3 shows clearly that Indonesia had considerably lower adult literacy rates in 1980 than Thailand, but had basically caught up with Thailand in the early 2000s. Thailand's progress in terms of improving literacy rates seems to have been limited, though it is obviously more difficult to significantly increase adult literacy rates once they have reached around 90 percent. Looking at the most recent data on net secondary school enrollment ratios (displayed in Figure 4) shows that both Thailand and Indonesia continue to make progress in educating their populations. It also shows that Indonesia is a few percentages behind Thailand, especially as Indonesia's net secondary school enrollment ratios have stagnated between 2007 and 2009, while those of Thailand have grown more steadily.

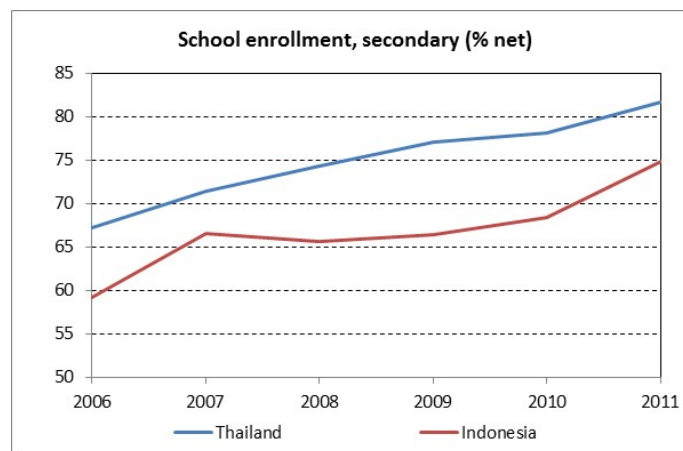
¹ Southeast Asia is typically considered to consist of the countries that are geographically south of China, east of India, west of New Guinea and north of Australia.

Figure 3: Adult Literacy in Thailand and Indonesia, all available years



Source: Source: Created by author based on World Bank (2014).

Figure 4: Recent Net Secondary School Enrollment Ratios, 2006-2011



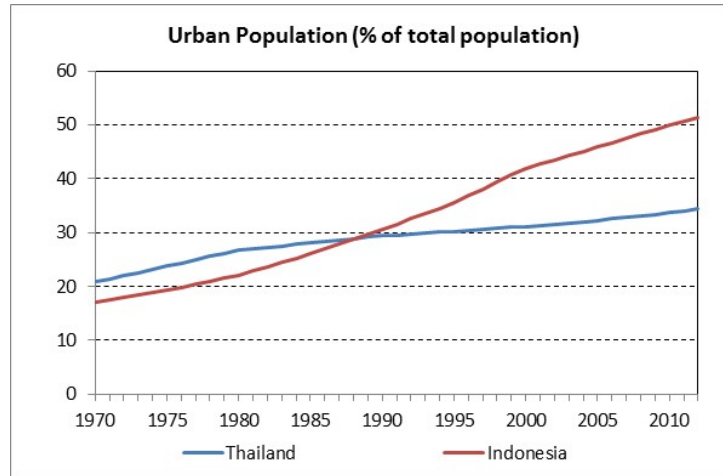
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IV. Discussion

IV.1. Urbanization

Urbanization is defined as an increase in the share of the urban population. Thailand and Indonesia have experienced significant urban growth since the 1970s that have allowed their respective cities to not only grow in population, but also in land area. As shown in Figure 5, Thailand's share of urban population increased from about 20 percent in 1970 to 35 percent in 2012, while Indonesia's share of urban population increased from slightly less than 18 percent in 1970 to above 50 percent 2012. Hence, Indonesia's urbanization has been far more rapid than that of Thailand. Taking into consideration the multiple large cities that Indonesia has, it is no surprise that more than half of the population are now living in urban areas.

Figure 5: Share of Urban Population in Thailand and Indonesia, 1970-2012

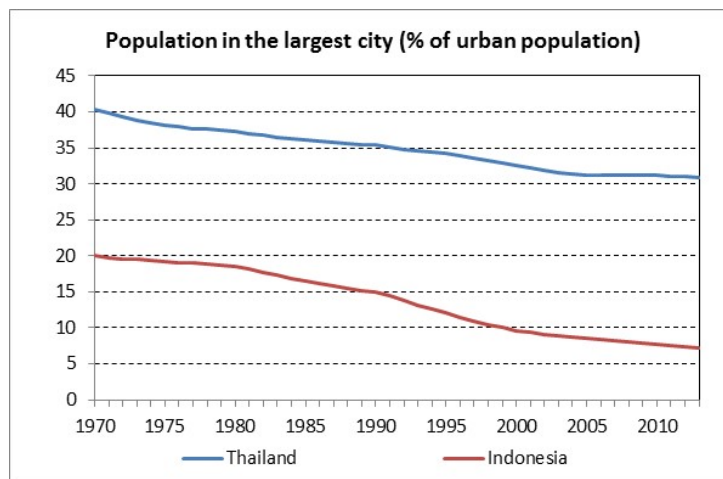


Source: Created by author based on World Bank (2014).

Economic growth and urbanization are closely related to each other. Ayal (1992) suggests that economic growth and urbanization have an element of dual causality, that is urbanization can cause economic development, and yet, without economic progress there may not be urbanization. Such a case is very evident in both Thailand and Indonesia. Figures 1 and 5 indicate positive trends in their respective elements, and comparing the two trends indicates that as GDP per capita increases, so does the share of urban population, meaning that there is a positive relationship between economic growth and urbanization.

Despite the increase in the urban share of the population, it is interesting to note that the share of population living in the largest city as a percent of the urban population (not of the total population) has been declining in both Thailand and Indonesia, see Figure 6. Hence, this implies that the population growth rates in the non-capital urban areas have actually been higher than in the capital of each country.

Figure 6: Population in the Largest City as Percent of Urban Population, 1970-2013



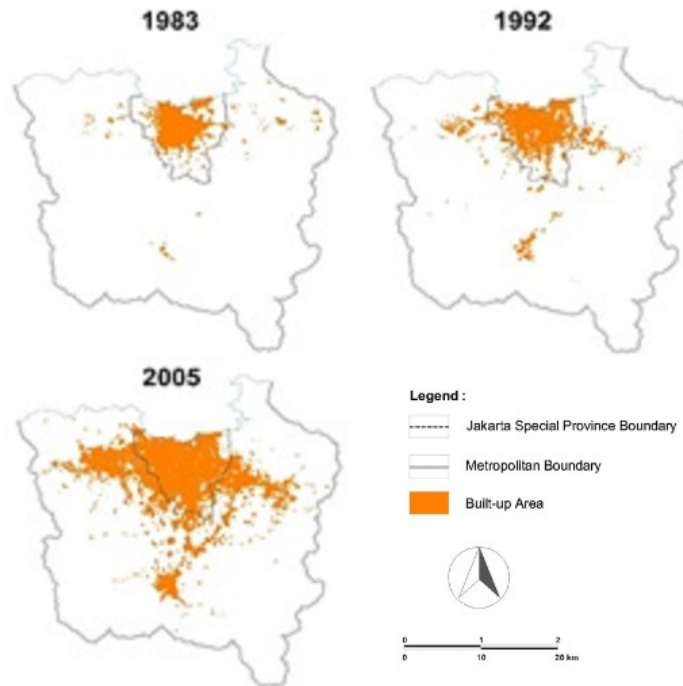
Source: Created by author based on World Bank (2014).

While this may not be too surprising for Indonesia, as we already pointed out that there has been rapid growth in many Indonesian cities, it is a kind of surprisig in the case of Thailand as Bangkok is considered the center of Thailand and still is the only city with a population of more than one million people. Although Bangkok is the major city of Thailand, developments in other cities such as Samut Prakan and Nonthaburi have also provided opportunities of modern city life, and therefore more people moved to these cities in relative terms. In Indonesia, Bandung and Surabaya are also some of the fast growing cities in the country, therefore causing Jakarta to have a declining percentage share of the urban population.

Some 20 years ago, Ayal (1992) regarded Bangkok as a primacy city, which means that Thailand is heavily dependent on one city for major activites while disregarding others. This has allowed Bangkok to greatly increase in size and population but may also have had greater negative implications. Indonesia has a different situation, although Jakarta is the most populous of all the major cities in the country, there are still other cities where major activities aid in the growth of the economy.

Indonesia’s case of rapid urbanization in multiple large cities is examined in Firman (2009), suggesting that Indonesia’s mega-urbanization is an ongoing effort to integrate major cities like Jakarta and Bandung together. This therefore means that both rural and urban activites will be integrated together. Thailand and Indonesia are thus very different to each other, Thailand’s export dependent economy means that they are able to sustain one major city and thus develop that city to become a center for socio-economic activities. However, Indonesia’s population is much larger, meaning that its economy is more domestic-based, therefore, causing the growth of other cities. Average population density in Thailand has been 130.8 people per square km of land area in 2012, while it was with 136.3 people per square km in the same year in Indonesia.

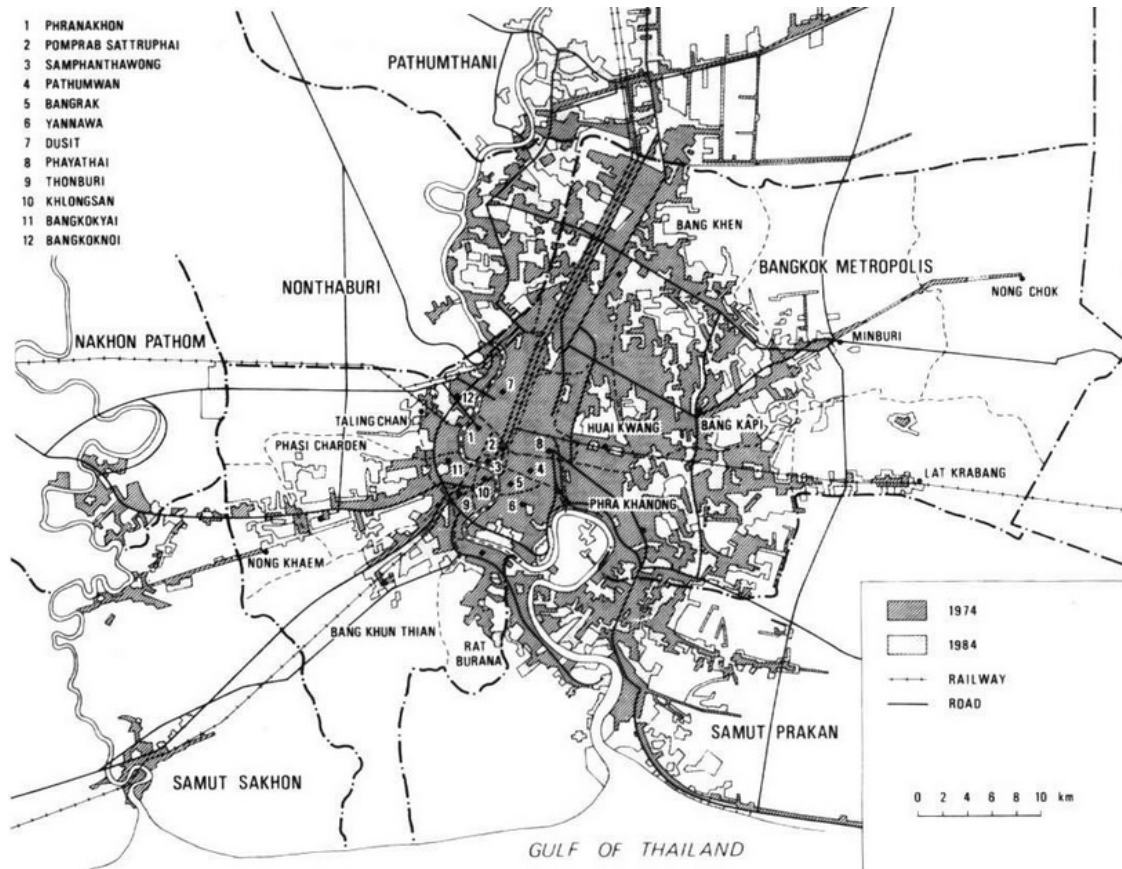
Figure 7: Expansion of Built-up Areas in Jakarta Metropolitan Region, 1983–2005



Source: Hudalah and Firman (2012), Figure 2, p. 43.

Figure 7 illustrates the expansion of built-up areas in the Jakarta Metro Region from 1983 to 1992 and to 2005. It is clear from these images that Jakarta has increased in size over the years to accommodate the increased urban population in the city. Figure 8 illustrates the expansion of Bangkok between 1974 and 1984; again, the increase in Bangkok's size is a result of urban growth and its primacy in Thailand.

Figure 8: Expansion of Bangkok, 1974-1984



Source: <http://archive.unu.edu/unupress/unupbooks/uu11ee/uu11ee0c.jpg>

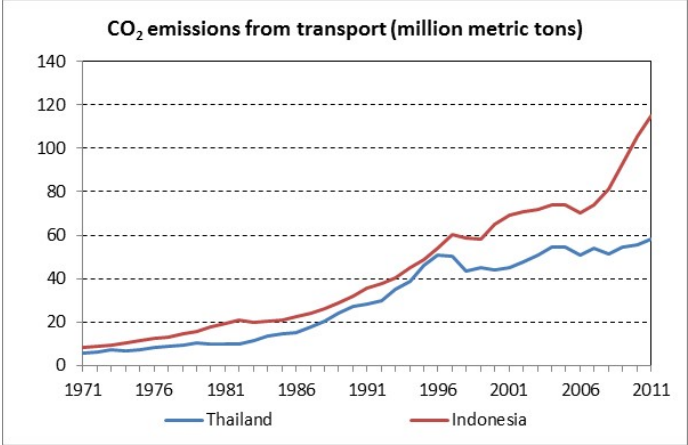
IV.2. Urban Environmental Concerns

With increased urban population, what damage has been done to the environment? Urban growth has both negatively and positively impacted Thailand and Indonesia. One of the major problems is environmental. As more people are migrating to urban areas, there can be greater increases in environmental damages due to emissions, improper regulation of garbage and sanitation, overpopulation, industrial and household wastage, and urban sprawl.

Transportation is very important in the urban environment. Since Bangkok and Jakarta are massive in terms of land area, transportation is very crucial to getting around and for delivering goods and services. Transportation may be in the form of public (buses, trains) or personal (cars, trucks) transportation. Yet all of these have the common trait of emissions, causing pollution. While comparable data on environmental issues is difficult to find, Figure 9 shows the CO₂ emissions

from transportation, which are provided as an indicator for the growth in pollution resulting from transport, even though this data is for the whole country. From 1971 to about 1996, the increases in CO₂ emissions from transportation has been very similar in both countries. However, while CO₂ emissions from transportation have started to stagnate in Thailand, they continued to increase in Indonesia; they actually grew even more rapidly in more recent years.

Figure 9: CO₂ Emissions from Transport (millions of metric tons), 1971-2011



Source: Created by author based on World Bank (2014).

Webster (1995) reports that the incidence of respiratory problems in Bangkok was five times as high as in the rural parts of Thailand and this is primarily attributed to congestion of transport vehicles in the city. Pollution remains a problem in urban areas of Thailand and Indonesia as the use of motor vehicles and other energy consuming products grow faster than GDP (Webster, 1995). This becomes a problem as the overall urban environment gets damaged.

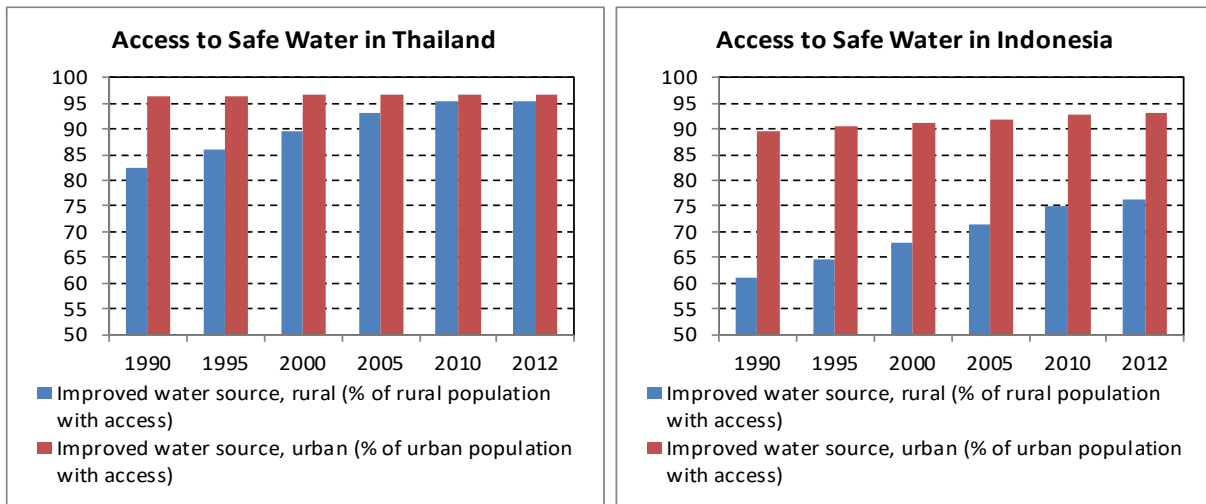
IV.3. Life in the Cities

Differences in rural and urban developments can be illustrated by comparing the availability and access to water and sanitation in rural and urban areas as well as by comparing the percentage of people living in poverty in rural and urban areas. This last sub-section examines the rural-urban differences in water, sanitation and poverty in Thailand and Indonesia.

IV.3.a. Access to Safe Water in Rural versus Urban Areas

Based on Figures 10 and 11, we can see that access to safe water is far higher in urban areas, and this applies to both Thailand as well as Indonesia, though Thailand’s access rates are overall higher than in Indonesia. Thailand has also made far more progress in increasing access to safe water in rural areas than Indonesia, though Indonesia also started out with far lower access rates in rural areas. In Thailand, the rural-urban gap in access to safe water has been nearly eliminated in 2012. On the other hand, the still significant rural-urban gap in Indonesia may partly explain why Indonesia’s urbanization has been faster than that of Thailand.

Figures 10 and 11: Rural-Urban Differences in Access to Safe Water

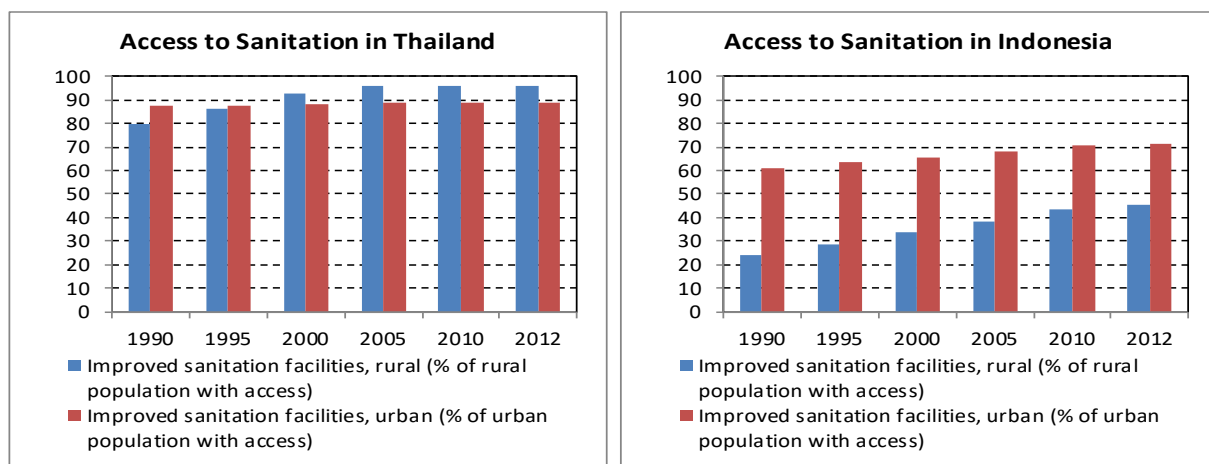


Source: Created by author based on World Bank (2014).

IV.3.b. Access to Sanitation in Rural versus Urban Areas

As Figure 12 shows, while Thailand’s rural areas had lower access rates to sanitation in the early and mid-1990s, by 2000 and onwards, the rural access rates have surpassed the urban access rate. On the other hand, as Figure 13 shows, rural access rates have always been far below urban access rates in Indonesia, despite that there has been a more progress over time in increasing rural access rates than increasing urban access rates. Indonesia’s relative slow progress in increasing urban access rates to sanitation is likely due to the rapid urbanization, which must have implied massive investments in sanitation in the new urban spaces to prevent a decrease in urban access rates. Like in the case of water, the still significant urban rural gaps in Indonesia may have been an incentive for people to move to urban centers, though a further analysis would be required to say this with certainty.

Figures 12 and 13: Rural-Urban Differences in Access to Sanitation



Source: Created by author based on World Bank (2014).

IV.3.c. Percentage of People Living in Poverty in Rural versus Urban Areas

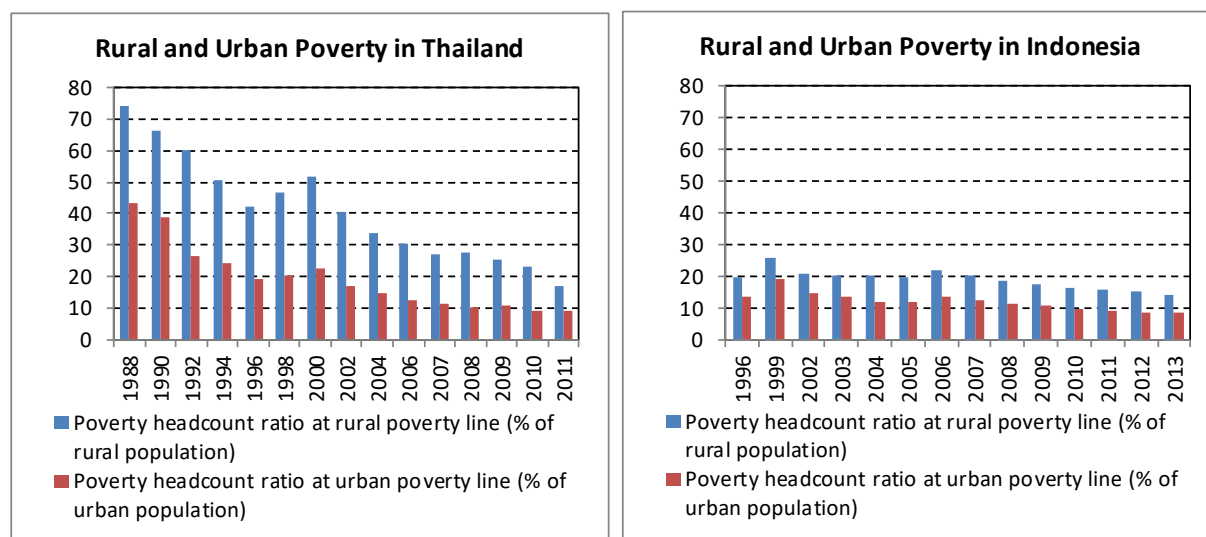
Poverty is a problem faced in both urban and rural areas. As seen in figures 14 and 15, poverty in the urbanized areas has decreased for both countries since the mid-1990s. For Thailand, there has been a major decrease in poverty in both urban and rural areas, decreasing the percentage of people living in poverty from 74 percent in 1988 to 18 percent in 2011 in rural areas, and from 42 percent in 1988 to 9 percent in 2011 in urban areas. Hence, in relative terms, Thailand reduced urban poverty more than rural poverty. While there is far less data available for Indonesia (the first year for which there is such data is 1996), Figure 15 shows that the rural-urban gap has actually been reduced in the case of Indonesia.

It is interesting to note that while Indonesia lacked considerably behind Thailand in terms of GDP per capita, life expectancy and net secondary school enrollment, comparing Figure 14 with Figure 15 shows that both rural as well as urban poverty have typically been lower in Indonesia than in Thailand.

- In 1996, Thailand's rural poverty headcount ratio stood at 42.3 percent, while that of Indonesia stood at 19.8 percent. In the same year, Thailand's urban poverty headcount ratio was 19.2 percent, while that of Indonesia was 13.6 percent.
- In 2011, which is the last year there is such data for Thailand, Thailand's rural poverty headcount ratio stood at 16.7 percent, while that of Indonesia stood at 15.7 percent. In the same year, Thailand's urban poverty headcount ratio was 9.0 percent, while that of Indonesia was 9.2 percent, so in terms of urban poverty, Thailand is now doing better.

Clearly, Thailand has been far more successful with decreasing urban and rural poverty than Indonesia, though Indonesia started out with far lower poverty headcount ratios in 1996. The impact of the Asian Crisis is clearly visible in both countries, while the impact of the 2008 world financial crisis is less obvious in both countries.

Figures 14 and 15: Rural-Urban Poverty in Thailand and Indonesia



Source: Created by author based on World Bank (2014).

V. Conclusion

The dual causality of economic growth and urbanization is very evident in the transformation of both Thailand and Indonesia. Urbanized areas have become the hub of socioeconomic activities and for both Bangkok and Jakarta, maintaining a healthy environment is very important to keep such activities alive. Thailand's primacy case allowed Bangkok to grow massively, but trading off the development of other cities which may have potential to grow and become socio-economic hubs. Indonesia's urbanization seems to have been more distributed among many mega cities.

Overall, the standard of living has been better in urban than rural areas in both countries. With high levels of infrastructure coupled with higher access to sanitation and safe water, living in the cities has improved the lives of the people. However, since there are high concentrations of people in the cities, pollution becomes a major problem, especially since motorized vehicles are heavily used and there is lots of congestion. Pollution can also be a result of improper regulation of waste and as such, causing water pollution. Problems with pollution can however be solved through further efforts in advertising clean urban environments and building proper infrastructures to reduce waste. Public transport can also be advertised more to encourage citizens to reduce the use of personal motored vehicles within the city.

With great increase in the population of urban areas, poverty is becoming more evident and this is the case basically everywhere in the world. Thailand and Indonesia are no exceptions to urban poverty growing faster than rural poverty, though fortunately, the percentage of poor people has been falling in both countries. Currently, providing opportunities for poor people is one way to reduce poverty, and although poverty reduction policies may differ between the two countries due to different conditions of Thailand and Indonesia, poverty reduction as a whole is a necessary step for allowing major cities to prosper further.

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