The Significance of Analyzing Demography in the Field of Urban Development -A Case Study of Urbanization in Southeast Asia-

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The Significance of Analyzing Demography in the Field of Urban Development:

A Case Study of Urbanization in Southeast Asia

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Introduction

It is widely claimed that the twenty-first century has turned into an "era of cities." Behind this rising tendency toward cities, the progress of urbanization exists as a fundamental driver and urbanization is a universal phenomenon that is apparent everywhere on the globe. Estimates provided by the United Nations Department of Economic and Social Affairs (UN-DESA)[1,i] exhibit that the total worldwide population will increase from 7.55 billion to 8.55 billion between 2017 and 2030 and will keep expanding to 9.77 billion by 2050. It might therefore be expected that the population of city dwellers has also been growing. In fact, the rate of urbanization is projected to reach 66% by 2050, indicating that two out of three people will be residing in cities. From a geographic standpoint, an intriguing dimension of this ongoing urbanization is that developing countries are taking the initiative in the urbanizing momentum. According to the World Bank[2] data on the world urban population, the figure for developed regions showed a rather modest increase from 650 million in 1980 to 960 million in 2015. By contrast, the one for developing and emerging regions multiplied threefold during the same period: from approximately one billion to three billion. Hence, it is no wonder that such an exponential growth of cities raises serious concerns about the possibility of urban problems.

In line with the above-mentioned trends, the term "cities" has gained legitimacy in the discourse of international development. The Sustainable Development Goals (SDGs) adopted by the United Nations General Assembly in 2015 is the most well-known example. One innovative objective incorporated in the SDGs is a goal distinctively related to urban development: Goal 11. Unlike conventional development assistance that primarily targets rural areas and developing countries, the launch of the SDGs and Goal 11 demonstrates a new focus on urban issues. It is important to emphasize that urban issues are not standalone, only applied to Goal 11. Importantly, the visions exemplified by Goal 11 should be treated as an overarching theme that both developed and developing countries are entailed to tackle.

The need to address urban growth and its relevant complications has been largely acknowledged, but there may be a misunderstanding about the composition of contemporary cities. Although the image of third world cities is often that of places overcrowded with destitute households and young people, it is no longer accurate as a standardized depiction. Even in the developing world, the composition of populations in cities has changed, together with the process of demographic transition. Notably, the reduction of fertility rates has exerted a great impact on the organization of today's cities. As Wang and Sun[3] state, urbanization has been understood as a structural shift along with fertility decline. This is because the trend of decreasing fertility rates is intimately related to dynamics of urbanization, which have in effect facilitated a favorable socioeconomic milieu.

In view of the argument presented above, Southeast Asia is a fascinating case to examine. The reason is that, while most of the Southeast Asian countries are still categorized as middle-income or less advanced than that[4], some of them are about to reach almost the same rates of urbanization and fertility decline as high-income developed countries. Unlike countries in Africa and South Asia where high fertility rates remain, some Southeast Asian countries have achieved a contrasting low fertility rate. These facts cast doubt on the legitimacy of the orthodox population scenario assuming that more babies are born in

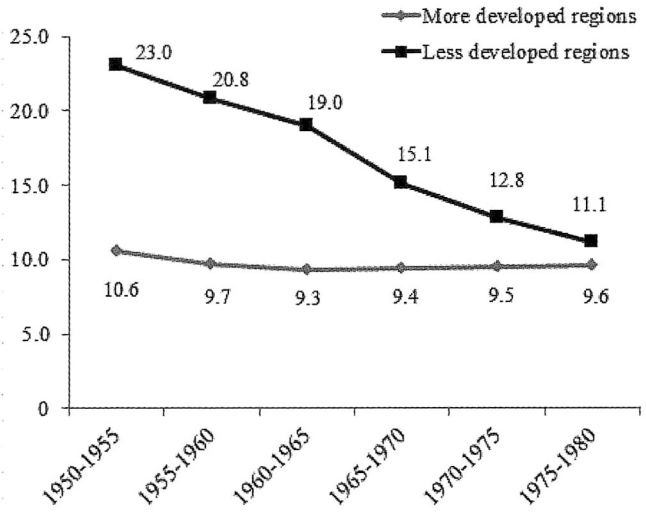
developing countries and fewer in developed countries.

That kind of demographic change in Southeast Asia poses questions for the implementation of economic and social development in today's cities. This issue becomes more critical in the pursuit of the SDGs. To support the realization of a livable urban environment that Goal 11 envisions, research on urbanization must go beyond a mere description of the phenomenon. Rather, it needs to be complemented by an attempt to identify the right place, right time, and right people for urban development. Otherwise such development designed to alleviate existing difficulties may end up with superficial schemes that are inappropriate to actual situations. To address these points, this paper discusses how ongoing demographic transition, especially the decline in fertility rates, is intertwined with the socioeconomic changes associated with the advancement of urbanization. It is hoped that the conclusions of this research will be instrumental in helping to devise forward-thinking urban planning for the era of cities.

Emerging characteristics of contemporary demography

For the last several decades, demographic transition has increasingly intensified throughout the world and this trend is most clearly evident in developing countries. However, a crucial difference between developed and developing countries is the speed of the transition: it is much faster in developing countries[4]. The data introduced below substantiates that demographic changes in developing countries have been quite dramatic. As for the change in death rates that contributes to opening up demographic transition, less developed regions[iii] recorded a phenomenal drop from 23.0 in the early 1950s to 11.1 by 1980; by contrast, the death rate in more developed regions remained almost unchanged at around 10.0[iv] (see Figure 1). Another essential component of the demographic changes, the decline of fertility, showed similar decreases but its trajectory was somewhat different. As with death rates, substantial reductions in the total fertility rates (TFRs) were also detected in less developed regions (see Figure 2). However, the most

Figure 1　Death rates in more developed and less developed regions, 1950–1980

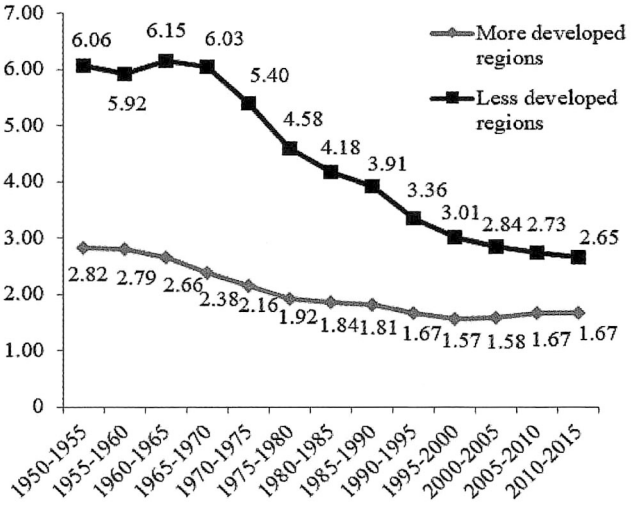


Source: UN-DESA (2017)

noticeable decline took place in the 1970s and 1980s, from 6.03 in 1965–1970 to 4.18 in 1980–1985. So, between the decline in the death and birth rates, there is almost a twenty years gap as mortality rates usually descend before fertility rates slow down. Therefore, the total world population is predicted to expand and about half of the less developed countries still pursue policies to limit population increase (see Table 1). It explains why the alarmist view warning of a population explosion persists to the present day.

In spite of the continuing caution about population growth, the next stage of demographic transition began to appear in some developing countries, with a downturn trend of both mortality and fertility rates. Since the improvement in mortality profoundly affected survival rates, especially of infants, the need to have more children to make up for missed babies was becoming less important. As a result, reproductive behaviors and decisions were altered to lower fertility. Statistics presented by UN-DESA[5] show that TFRs worldwide continued to decline from 4.4 in 1970–1975 to 2.5 in 2010. In conjunction with this

Figure 2 TFRs in more developed and less developed regions, 1950–2015



Source: UN-DESA (2017)

Table 1 Government policies on the rate of population growth, 1976–2013 (%)

Year	Raise			Maintain			Lower			No intervention		
	More developed	Less developed	Least developed	More developed	Less developed	Least developed	More developed	Less developed	Least developed	More developed	Less developed	Least developed
1976	24	17	12	0	0	0	0	34	14	76	49	74
1986	24	14	8	24	3	6	0	41	29	53	42	56
1996	23	10	2	13	7	2	2	48	55	63	35	41
2005	35	8	0	17	16	8	0	48	70	48	27	22
2013	49	10	0	14	23	6	2	49	84	35	18	10

Source: UN-DESA (2013)

decrease, the number of countries with TFRs below the replacement level of 2.1 has risen sharply from 55 countries in 1990–1995 to 86 countries in 2010–2015 and will go up to 119 countries by 2030–2035. It implies that the formula of "fewer deaths and fewer births" has become generalized for the last several decades.

Southeast Asia is a good example to illustrate the prevailing cli-

Table 2　TFRs in selected Southeast Asian countries, 1955–2070

	1955–1960	1965–1970	1975–1980	1985–1990	1995–2000	2005–2010	2015–2020	2025–2030	2035–2040	2045–2050	2055–2060	2065–2070
Southeast Asia	6.12	5.91	4.81	3.58	2.69	2.42	2.25	2.11	2.00	1.93	1.88	1.85
Cambodia	6.95	6.70	5.42	5.99	4.25	3.08	2.52	2.27	2.09	1.96	1.87	1.82
Indonesia	5.67	5.57	4.73	3.40	2.55	2.50	2.32	2.12	1.98	1.90	1.85	1.83
Malaysia	6.38	5.38	4.20	3.67	3.13	2.22	2.01	1.86	1.78	1.74	1.74	1.74
Myanmar	6.00	6.10	5.15	3.80	2.95	2.55	2.18	2.00	1.87	1.80	1.77	1.77
Philippines	7.27	6.54	5.46	4.53	3.90	3.30	2.88	2.60	2.39	2.21	2.07	1.96
Thailand	6.14	5.98	3.92	2.30	1.77	1.56	1.46	1.43	1.51	1.59	1.65	1.69
Vietnam	6.16	6.46	5.50	3.85	2.25	1.93	1.95	1.92	1.91	1.90	1.90	1.90

Source: UN-DESA (2017)

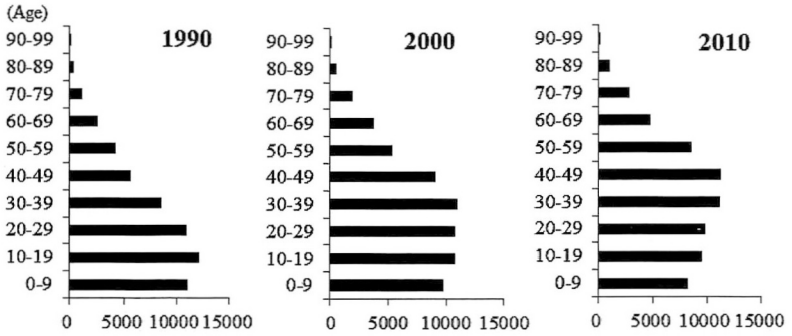
mate of decreased TFRs. While the total population in the region is projected to grow by seven to eight million between 1993 and 2025, the gradual erosion of the population will become obvious by 2050 and the biggest contributory factor is the decline in fertility rates[6]. Despite some exceptions and fluctuations, TFRs in the region are mostly getting lower. As Table 2 displays, TFRs in the 1950s were maintained at high levels above 6.0. However, since the start of the new millennium, those numbers have sunk to the replacement level or below. Of all the Southeast Asian countries, Thailand is often seen as a forerunner in rapid fertility change, but it is not particularly unusual. For example, a remarkable drop has been found as well in Vietnam, reaching the replacement level in the 2005–2010 period. Overall, it is highly probable that other countries in the region will follow a similar path and their TFRs will descend below 2.1 by the time 2055–60.

Even though both mortality and fertility declines prepare the ground for demographic changes, the reasons for the declines are different. With respect to the decrease in mortality, a number of factors can be identified: for example, the advancement of medical inventions and technology such as immunization and antibiotics, the spread of public health programs, the increase in agricultural productivity, and so on[7]. All of these factors lead to fostering environments with less disease and more nutrition, bringing about a positive influence on longevity. As officially endorsed by the UN's data, life expectancy in less developed countries extended from 41.8 to 65.4 between the early 1950s and the late 1990s while that in more developed countries recorded a marginal increase from 66.1 to 74.8[8]. Furthermore, it is important to underline that the timings of mortality decline differed only slightly by country or region. This is possibly because mortality decreases were more subject to the exogenous forces mentioned above[9]. Therefore, as long as a certain set of favorable conditions are intentionally created and aligned, mortality rates will improve.

On the other hand, factors leading to the decline in fertility rates are less straightforward. It is generally recognized that fertility rates are negatively correlated with economic development[10]. Since there is a time lag between reductions in mortality and fertility, the proportion of the working-age population increases. In consequence, fertility changes have generated positive economic effects during such "population bonus" periods. To cite a case, in Thailand, the largest age group has gradually shifted from teenagers in 1990 to the more economically active population, 30-49, in 2010 (see Figure 3). Actually, this was the period of the most rapid economic growth in Thailand: its gross domestic product (GDP) per capita rose from US$ 2,008 in 1990 to US$ 5,075 in 2010 (see Figure 4). These statistics help to verify that Thailand was in the midst of the population bonus period, enjoying maximum labor productivity around the turn of the century. From this, it can be said that the progress of fertility decline is an integral part of economic development.

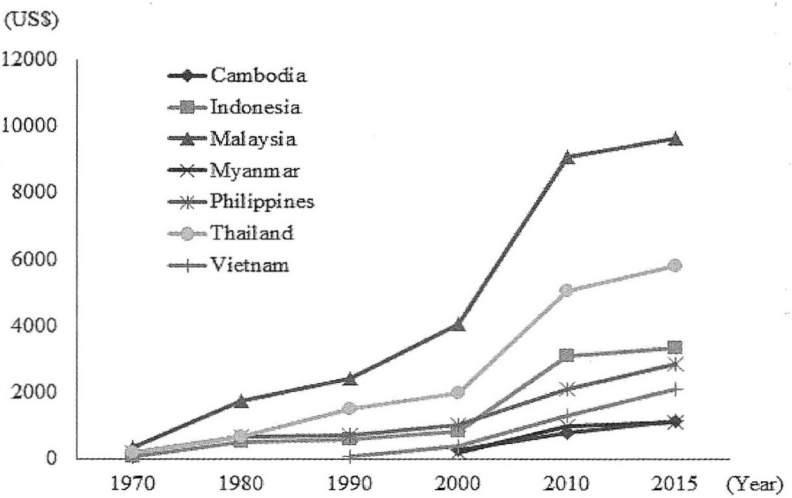
Nonetheless, it does not necessarily mean that income growth

Figure 3　Age cohorts in Thailand, 1990–2010 (thousands)



Source: UN-DESA (2017)

Figure 4　Changes in income per capita, 1970–2015



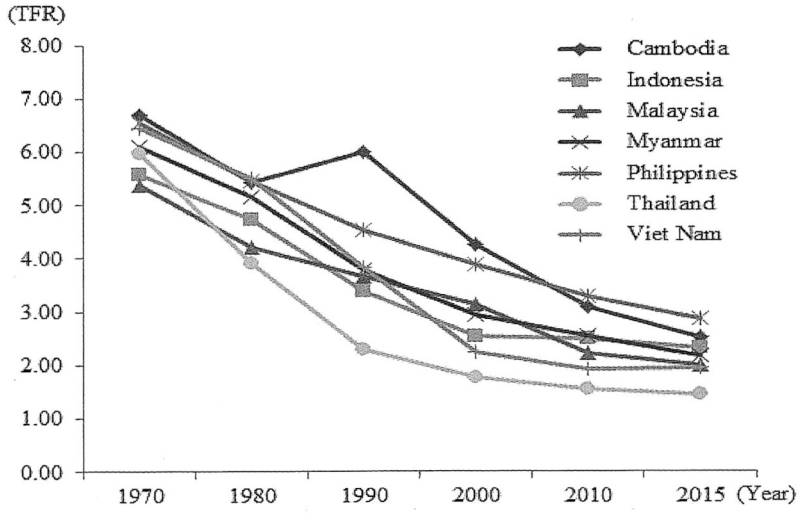
Source: World Bank (2017)

facilitates a downturn in fertility. The situation in Southeast Asia illustrates this complexity. When checking Figure 4 and Figure 5 in parallel, close attention has to be paid to the 1980s and 1990s because those are the periods when fertility decreases appeared ahead of income boosts. Other than Cambodia, rising incomes were monitored especially

in the 2000s, after a considerable drop of TFRs in the preceding two decades. What is more, it is worth noting that the trend of fertility change has penetrated across Southeast Asia regardless of the stage of economic development. Taking Myanmar as an example, while its GDP per capita was just $1,139 in 2015, the country's TFR fell to around the replacement level, 2.18[11]. In this way, the Southeast Asian countries do not exactly follow the predominant economic-based theory of fertility decline that Europe and North America demonstrate.

Moreover, it should be acknowledged that top-down initiatives serve as a decisive element in many developing countries. A study conducted by Boulier[12] reveals that 40% of the fertility decline between 1965 and 1975 was attributed to family planning efforts, whereas socio-economic changes only accounted for 27%. Southeast Asia is no exception. In the region, government approaches have been extremely influential and family planning programs were once the main vehicle for fertility change. Tracing back the history, the latter half of the 1960s was the time when the idea of birth control was proposed and encour-

Figure 5 Changes of TFRs, 1970–2015



Source: UN-DESA (2017)

aged in major Southeast Asian countries. At the outset, Singapore launched its population policy in 1965 and other countries followed it: Malaysia in 1966, Indonesia in 1968, and Thailand and the Philippines in 1970[13]. Accordingly, in Thailand for example, the area recording the greatest fertility decline between 1965 and 1975 was the Northeast region, the poorest in the country[14]. It is important to stress that the results achieved through public schemes were significantly assisted by the invention and supply of various measures such as such as oral contraceptives, IUDs (intrauterine devices), injectables, implants, and sophisticated sterilization techniques[15]. As a matter of fact, such top-down intervention still works today. In Myanmar for example, the government has adopted a policy of increasing the availability of contraceptives and started birth spacing activities in townships since the early 1990s[16]. As described by this Myanmar's case, government approaches to expanding available choices have given great impetus to the lowering of TFRs. So by virtue of the strong centripetal force of public programs, fertility transition can occur even in economically lagging areas.

Having said that, however, long-term declining trends cannot be explained only by top-down initiatives. As Hirschman and Bonaparte[17] assert, since government policies wield control over fertility for an initial period of time, temporarily, they may not fully function as a continuous measure. Thus, in addition to the two fundamental determinants featured above, it is vital to investigate other factors promoting ongoing fertility decline.

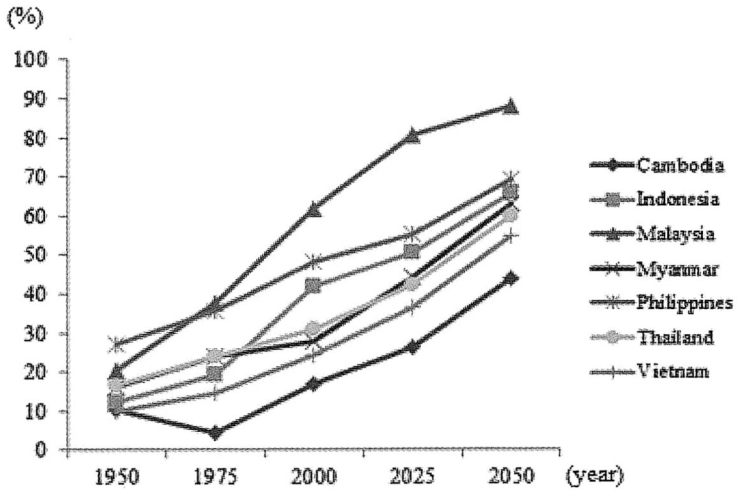
Why fertility matters in the process of urbanization

Regarding other possible factors, the advancement of urbanization is especially prominent as it resonates with the decline in fertility rates. Even though they might not be connected in an overt, direct manner, urbanization has led to socioeconomic changes that affect reproductive decisions and behaviors. This is mainly because, compared to the improvement in mortality, conditions contributing to fertility transition are by and large driven by socioeconomic changes that are individual

as well as urban-oriented. In the case of Southeast Asian countries, it can be assumed that the process of fertility decline and the progress of urbanization are fairly synchronized. By looking at Figure 6 along with Figure 5, it becomes clear that the course of urbanization has an inverse relationship with TFRs. This exactly corresponds to what Sato and Yamamoto[18] claim: "many countries that experienced the inverted U-shaped demographic transition were observed to have remarkable advances in urbanization."

Various scholars present analyses that are useful to clarify how urbanization has had an impact on fertility. First and foremost, the shift of industry should be carefully investigated. In step with the advancement of urbanization, the economic bases of countries have been going through a revolutionary transformation to more urbanized sectors. Especially in developing countries, changes of settlement and employment patterns from rural to urban, so-called "urban transition," have been taking place on a broader scale. As for the impact of the shift, two demographic observations can be made. To begin with, the

Figure 6 Urbanization rates in selected Southeast Asian countries, 1950–2050



Source: World Bank (2016)

socioeconomic position of children has altered as a result of the industrial shift. When agriculture was a key industry, large numbers of children were desirable to supply an extra labor force. However, the move to urbanized sectors such as manufacturing and services has led to the changing economic role of children. Hence, people prefer fewer children because the need to have more children for agricultural work is not as acute as it was previously[19]. Furthermore, the ways of having and raising children have changed. Within the process of urbanization, greater investment in children's education is considered essential in order to develop competent and productive human resources qualified for non-agricultural, knowledge-based jobs. As a consequence, reproductive decisions to rear fewer children tend to be justified due to mounting costs[20]. Therefore, the preference for smaller families has gained in popularity in favor of seeking the prospect of urban employment.

Additionally, it is often recognized that women's increased participation in the labor market has profound implications. Owing to the industrial shift, the number of jobs open to women has mushroomed in the urbanized sectors, so the employment of women is no longer superfluous. In turn, women's reproductive behavior has changed since having children entails a substantial time commitment that would hinder women's work[21]. These observations support the phenomenon of fertility changes aligned with urbanization. In reality, fertility rates usually decline in urbanized areas and the absolute number of people in urbanized sectors continues to swell in the aftermath of the above-mentioned transformation.

Such an industrial shift emerged in Southeast Asia also. From the 1980s to the 2000s, when the acceleration of urbanization come up to the surface, the departure from the primary sector became pronounced in major Southeast Asian countries. As Table 3 shows, while some ups and downs are disclosed regarding the percentages of secondary and tertiary sectors, the contribution of the primary sector to GDP has not relatively fluctuated on average and represents only a nominal fraction of the total.

In Southeast Asia, one distinguished feature of the shift lies in the

Table 3 Contribution ratios to GDP growth by sector, 1980s–2000s (%)

	1980s			1990s			2000s		
	Primary	Secondary	Tertiary	Primary	Secondary	Tertiary	Primary	Secondary	Tertiary
Indonesia	12.7	45.2	42.1	8.1	55	36.9	9.5	34.1	56.4
Malaysia	9.6	47.2	81.7	1.4	54.7	43.9	5.1	28	67
Philippines	10.7	7.7	81.7	10.3	31.4	58.3	7.7	29.5	62.8
Thailand	6.9	42	51	3.8	53.5	42.6	4	54.3	41.7

Source: World Bank (2017)

propulsive role that export-oriented industrialization (EOI) has played. To begin this analysis, it is necessary to review the reorganization of economic bases in postwar Southeast Asia. During the postwar time, economic growth strategies that many Southeast Asian countries employed were inherently linked to the advance of urbanization. As Douglass and Jones[22] point out, until the mid-twentieth century, although "primate cities" dominating national urban systems did exist, they did not function as engines of economic growth. This situation changed due to the introduction of EOI in the 1970s. In order to attract foreign direct investment (FDI) through the promotion of EOI, a series of industrial complexes and/or export processing zones (EPZs) were established around primate cities. Needless to say, other developing and emerging countries took similar development policies, but the scale and scope of the attempts were bigger in Southeast Asia, resulting in more salient success. According to the reports of United Nations Conference on Trade and Development (UNCTAD)[23], the Asia and Pacific regions were the leading recipients of FDI flows which accounted for about 60% of the total flows to all developing countries in 1990 and that tendency continued in the following years. Southeast Asian countries such as Indonesia, Malaysia and Thailand got more accepted as major hosts of FDI following the ascendancy of "Four Asian Tigers": Hong Kong, Taiwan, Singapore, and South Korea.

Such economic development certainly affected the progress of urbanization. In brief, the expansion of cities is not simply caused by population increase; but, in practice, cities' boundaries are greatly ex-

tended by private investment. For instance, a study conducted by Konagaya[24] specifies that urbanization in Jakarta did spread to its neighboring cities and this style of urbanization was mainly urged by FDI-led suburban development. The same urbanization pattern can be also identified in Bangkok. During the 1980s, the areas absorbing industrial investment were concentrated on the periphery of the Bangkok Metropolitan Region; then, the target areas were subsequently stretched to adjoining provinces. These patterns exactly reflect the "peripheral urbanization" indicated by Knox and McCarthy[25]. Outskirts of cities have become the spaces where increasingly being integrated into a globalized economy. Actually, as of 2007, Bangkok and its surrounding seven provinces occupied 66.9% of the total industrial GDP; of that 66.9%, the proportion that surrounding provinces contributed was 53.2%[26]. From a demographic perspective, such peripheral urbanization poses a critical geographical challenge. As Jones and Douglass[27] claim, "the peripheral areas with faster population growth are in many cases located almost entirely outside the metropolitan boundary." In fact, the urban population growth in DKI Jakarta, the capital city of Indonesia, was quite modest, rising from 6 million in 1980 to 8.2 million in 1990; to the contrary, during that same period, the population in adjacent cities such as Tangerang and Bekasi increased from 0.23 million and 0.19 million to 1.52 million and 1.15 million respectively[28]. What these figures exhibit is that localities outside conventional city centers have been turned into epicenters in the urban demography.

It is crucial to highlight that this type of development has had an enormous influence on the socioeconomic position of women. The so-called "feminization of labor" should be mentioned to elaborate this point. Based on an array of EOI development in Southeast Asia, employment opportunities expanded to include unskilled workers, especially rural women. As Fontana, Joekes and Masika[29] state, a strong relationship exists between increased exports and heightened female employment in manufacturing. In practice, the sector attracting the greatest female employment has shifted from agriculture to manufacturing[30]. In this respect, two notable effects are found regarding the

socioeconomic position of women. Particularly, their economic status improved as the prosperity of the export industry provided them with better employment opportunities and conditions[31]. Moreover, the social emancipation of women is another symbolic consequence. That is, women who leave their home towns are able to escape from traditional familial roles and duties. As Hirschman and Bonaparte[32] say, in addition to the cultural characteristic of Southeast Asia giving women relatively high status, such socioeconomic changes are vital factors causing fertility decline. Also, delayed marriage triggered by these changes is one of the essential contributors to low TFRs in the region. This is because the decline in marital fertility has been a prime-affecting variable, which is a unique feature in Southeast Asia compared to Europe and North America[33].

Besides, in the case of Southeast Asia, the issue of the "feminization of labor" needs to be placed in a spatial context since the distribution of that feminization tends to be geographically disproportional. As described above, owing to the diffusion of FDI-led development, the nodes of the distribution were often identical to special industrial districts like EPZs built in urban fringe areas. Thus, the "feminization of labor" does not merely refer to an aspect of labor being feminized, but indicates the increased accumulation of feminized jobs in urban settings. Based on this understanding, it can be argued that urbanization in Southeast Asia has the following two traits: (1) expansion of territorial boundaries defined as "urban" particularly through the promotion of EOIs and (2) stronger presence of female labor in such urbanized areas. In this sense, "urbanization of feminized labor" would be an appropriate expression to delineate distinct characteristics of the region.

Another point instrumental in determining the relationship between fertility transition and urbanization involves the issue of education. It is commonly perceived that highly educated women are able to protect their own interests and undertake preferable family planning because they are better situated to gain access to various concrete interventions and related information[34]. That is why women with higher educational attainment are inclined to have fewer children, meaning

that education itself helps women to control their reproductive behavior and decisions. Furthermore, longer periods of schooling also contribute to a continuing decline in fertility due to delayed marriage and childbearing[v]. These assumptions seem reasonable. For example, in the Philippines, highly educated population segments take a major role in diminished fertility rates. According to a country report prepared by Republic of the Philippines Commission on Population[35], women who had received a high school or college education had smaller TFRs than the group with elementary education: 3.6 and 2.9 respectively compared to 5.0.

Regarding the growth of female labor and the increase in women completing secondary and tertiary education, different inferences can be drawn in light of urbanization. In reality, working women with higher educational attainment are more likely to cluster in thriving urban areas. The situation in Bangkok serves as a good example in this light. Oizumi[36] suggests two reasons for it. First, in spite of the fact that the largest segment of the working population, 49.1%, consists of people with primary education or below, 34.2% of the total university graduates are concentrated in Bangkok. Second, while in-migrants are fewer than out-migrants, people moving into the metropolis have better educational backgrounds compared to others. Of course, the higher income levels in cities are a strong magnet attracting a well-educated workforce and those people are able and willing to give their children a quality education. Thus, it is fair to presume that not the education level itself but the increasing concentration of highly educated women in urban areas means much to fertility decline. As the percentage of women's work participation swells and female labor becomes a commodity within the market economy, the necessary investment of time and money required to raise children is seen as an impediment[37]. All these factors result in the management of a smaller family size being a rational choice, particularly for the urban population.

To recap the line of the discussion, extended urban areas are the places most associated with fertility decline and such a trend will undoubtedly continue amid ongoing urbanization. This is because demo-

graphic changes involving dramatic decreases of TFR are not evenly spread on a national scale but are highly apparent in such urban areas. Therefore, the changes in fertility rates cannot be interpreted as being pervasive throughout a country. Today's cities are being increasingly detached from the "countries" where they used to represent. On that point, fertility transition may be understood as an indicator of the start of urban restructuring.

It is important to remember that the socioeconomic changes outlined above are not the predominant catalyst of fertility decline in urban contexts. More interestingly, even the efficacy of government interventions may be vulnerable to the urbanization trend. As stated already, top-down schemes work effectively for less-privileged people and should cater to them. However, providing public services in densely populated areas is easier and more efficient, leading to larger outcomes. So, when considering policy implementation, focusing on urban areas would be appropriate for obtaining significant achievements.

In summary, urbanization does not simply stand for the movement of people from rural to urban. It also implies the increase of population with new "urbanized" perceptions. Based on that understanding, the term "urbanization" is not just a noun depicting a phenomenon. Instead, it should be used more actively as the verb "urbanize" to signify the changing attitudes and values that are necessary for survival in contemporary cities.

Challenges and lessons drawn from the Southeast Asian experiences

As examined so far, analyses of fertility transition should cover a broad range of socioeconomic variables affecting the way people live in urban settings. Of course, such changes related to urbanization have both pros and cons and the experiences of Southeast Asian countries are useful in presenting some critical lessons for other counterparts to learn.

To begin with, the pattern of demographic transition distinct in Southeast Asia has raised a number of concerns. Without any question, TFRs below the replacement level have severe damage to the maintenance of the existing economic and social foundations of a country. The impact varies by country depending on the ends of the population bonus periods. According to a projection in the mid-2000s, Thailand would reach the end of the bonus period in 2010–2015, much earlier than other countries such as the Philippines and Malaysia, reaching the ends in 2040–45 and 2035–40 respectively[38]. Variations in the estimated ends are mostly derived from the difference in the speed of fertility decline. Since Thailand's fertility decline was more drastic, the country has recently been facing the effects of completing the bonus period. As shown in Figure 3 above, the two biggest age groups in Thailand will move up to 50–59 and 60–69 by the year 2030[39]. Like this, Thailand is heading toward an aging society more quickly than others, but this trend will be soon observed throughout the region. It is predicted that some Southeast Asian countries will see an increase in the older population in much shorter periods of time. As for the percentage of the elderly over the age of 65, it will take only 17 years in Vietnam for the level to increase from 7% to 14%. Considering the fact that it took 25 years for this to happen in Japan[vi], once known as the most dramatic case, the sharp aging of the population is explicit in the region[40]. Since the downward trend of fertility is also expected to go on (see Table 2 above), it is highly probable that the bonus periods will finish sooner than thought.

In practice, the shortening of the bonus periods poses considerable challenges for urban development. In the first place, the matter of time constraints is going to be addressed. As described in the preceding sections, the progress of fertility decline in Southeast Asia is faster than foreseen. In consequence, unlike developed countries going through the same trend at a gentler pace, there has been insufficient time to implement countermeasures for the decrease in fertility rates and the subsequent aging populations. As Jones, Straughan and Chan[41] indicate, changes in age distribution raise new questions for planning economic

and social welfare programs. However, aside from Singapore[vii], most of the countries and cities are ill-equipped to cope with the demographic changes. Despite the fact that aging populations and the resulting population decreases have been fairly anticipated in less developed regions, only 10% of the countries have launched pronatalist policies as of 2013 (see Table 1 above). What should be understood in this respect is that the demographic changes inevitably require the reconstruction of urban spaces. No need to dispute, the restructuring of social and economic policies and related institutinal arrangements is definitely necessary because the demographic changes put increased pressure on education, welfare, jobs, housing, and so on. Yet, at the same time, the physical design of cities has to be reconsidered in order to create and defend living spaces that meet the needs of diverse people in urban areas. For instance, the preferred type of land use and public transportation is contingent upon demographic traits. Therefore, as this paper advocates, demographic studies should be incorporated more into the formulation of urban planning. Nevertheless, it is not that easy at all since the realization of such reconstruction necessitates the injection of tremendous financial resources in a brief span of time. The importance of time dose exist here. In developing and emerging countries, the advancement of urbanization and fertility decline is far more abrupt with greater magnitude, bringing about changes in urban demographic compositions in shorter periods of time. However, because of budget and time constraints, the feasibility of carrying out urban development suitable for the renewed demography is indeed questionable. Especially, given the present condition that population increases occur in smaller urban areas with 500,000 people or less, urban development in those cities with weak implementation capacity will be more likely to encounter deprivation[42].

Furthermore, urbanizing trends have exerted a substantial impact on widening disparities. Disparities here can be defined in two ways. The first is embedded in a spatial perspective. A study done by Douglass and Jones[45] shows that, even in the same metropolitan region, TFRs vary depending on the distance from the center. In the late 1990s,

TFR in the inner area of Jakarta was 2.5, whereas that in the outer zone was 3.4. Strikingly, the difference in the TFRs stemmed from the socio-economic groups in each locality. In particular, TFRs reflect spatial differentiations relating to levels of education and income. That is, well-paid educated people who have access to knowledge and services are able to realize their desired reproductive plans and they tend to get together in certain fixed areas within a city.

Considering empowerment objectives, public schemes have to be specifically available to the women who are in underprivileged circumstances. Even so, there is a disparity between the well-informed rich and the marginalized poor. A study conducted by Ezeh, Kodzi and Emina[44] on sub-Saharan countries portrays the reality of in-city disparity, which can be termed as "urban divide." According to their research, compared to the richest 20 percent of the population, urban married women in the bottom 20 percent are two and a half times less likely to use any contraceptive method[45]. Hence, reproductive and health conditions vary widely by socioeconomic status. Apart from this, there is a possibility that public resources may not be distributed in an impartial manner. As is often the case in developing and emerging countries, public resources are not sufficient to satisfy the demands of the entire population. So the provision of government services might be biased under the name of "the greatest happiness for the greatest number." What this infers is the dilemma of a trade-off between efficiency and equity.

Concerns over the urban divide raise two controversial points that forthcoming research and practice should address. The first breaks away from a traditional rural-urban dichotomy. As Ezeh, Kodzi and Emina[46] mention, "little is known about how the poor in many urban societies are particularly disadvantaged in access to reproductive health services, because much of the literature has focused on broader rural-urban disparities." In fact, problems of data collection lead to a persisting orientation that prioritizes rural over urban. As shown at Figure 2 above, although overall TFRs have been falling even in less developed regions, many countries in the less and least developed

regions are actually pursuing antinatalist policies (see Table 1 above). This seems contradictory but suggests that a country's policies may be laid out based primarily on rural demographic conditions. However, considering that the main battleground of recent demographic changes has moved to urban, population policies should focus on the reality of cities nowadays.

Apart from the above, polarization of physical environments is another critical complication. As Jones and Douglass[47] state, "while the inner zone tends to be the area of new middle class prosperity in the form of gated communities and shopping malls, outer zones tend to fall behind municipal boundaries and lack even the most basic urban infrastructure despite the large urban population increases they are experiencing." From this assertion, two interpretations can be derived. First, disparities are tangible, implying that marginalized socioeconomic conditions are negatively facilitated and consolidated by physical environments. For example, access to safe public transportation not only indicates the provision of a means of travel; it also represents the expansion of opportunities for employment. That is why the physical aspects of urban planning hold a prominent place in discussions of inclusive development such as the SDGs. Second, today's cities are not mono-centered but poly-nuclear structures with subdivided districts. That is to say, extended urban areas can be broken into several spatial zones and each zone has its own demographic characteristics. In order to make cities adequate for current demographic compositions, concrete physical and spatial planning needs to be designed by using updated profiles of the zones.

Concluding remarks

The massive wave of urbanization has been extensively recognized as a watershed event characterizing this century. As is evident from relevant statistics, future population growth is expected to take place intensively in urban areas. Above all, cities in developing and emerging countries are perceived as a mecca of ongoing urbanization. Neverthe-

less, it seems obvious that measures taken to address the impact of urbanization have only limited effectiveness. Even though the proportion of governments adopting policies to curb rural-to-urban migration expanded from 38% in 1996 to 80% in 2013[48], the increasing gravity of urbanization will continue.

In accordance with such urbanization forces, the demographic composition of contemporary cities is undergoing a striking transformation. It might be often believed that cities in developing and emerging regions have a large proportion of young people who are comparably poor. However, this standardized conception of third world cities is longer applicable. It is not necessarily true that those cities are the places with impoverished neighborhoods randomly scattered throughout the territories, leaving many of them idle and unproductive. Even in such regions, some of the countries are entering a new stage of demographic transition with lower fertility rates in urban areas. Subsequently, contrary to the image of decades ago, the number of households having the following similarities has been on the rise: employed in urbanized industrial sectors, better educated and paid, with fewer children.

These changing circumstances call for not only the restructuring of cities' economic and social bases but also the redesign of their physical environments. Ideally, it is expected that forthcoming urban planning will invent and employ schematic approaches that can secure decent economic opportunities and equitable social services. Providing employment, education, health and medical services, and so on will be of great help in maximizing the benefits of urban agglomeration and minimizing adverse effects such as widening gaps. Furthermore, the development goals of urban planning must pay careful attention to the state of urban morphology in each locality. That is, the physical environment of cities needs to be devised and constructed in a way that is suitable for the people who constitute the current and future cities. In tandem with the expanding thrust of globalization, urban spaces are subject to becoming more monetized and polarized. In that context, the role of development planning is to mitigate and remove constraints and

deprivation from which urban inhabitants are suffering.

Although this paper is mainly engaged in the analyses pertaining to domestic factors, it must consider the issue of the unparalleled growth of international migration. For the last several decades, the phenomenon of heterogeneity and multicultural populations has gradually become prevalent in Southeast Asian cities too. Hugo[49] supports this tendency by saying that "permanent internal resettlement from rural to urban areas has been of fundamental significance, but international migration has also been overwhelmingly directed to large cities and is an increasing element in the growth of the largest cities in the (Southeast Asian) region." The meaning of introducing the issue of international migration at the end of this paper lies in the redistribution of worldwide population. As many scholars have given a special note since the 1990s, the predominant factors activating international migration are related to demographic transitions: negative population growth due to declining fertility rates, aging populations, and the depletion of reserves of flexible domestic labor in the host countries[50]. Negative population growth and aging populations in less developed regions surely place huge pressure on the availability of sufficient labor force. Therefore, it is not hard to imagine that the competition to attract overseas workers will become further fierce from now.

Of particular importance here is that not only developed regions but also less developed regions are increasingly being transformed into the host countries. Contemporary international migration differs from conventional models in terms of direction and composition. With respect to direction, a customary paradigm of migration was explained as a south-to-north movement. However, as was already apparent in the mid-1990s, south-to-south migration accounted for more than half of cross-border migration[51]. Consequently, a nation often classified as a labor exporter may be both a receiving and a sending country, like Malaysia with its major outflow to Singapore and large inflow from Indonesia and Southern Thailand[52]. Taking those two points into consideration, some Southeast Asian countries such as Thailand have a much greater potential to become big hubs of international migration. Thus,

the diversification of the urban population, including foreign migrants, certainly poses a tough question for dealing with the influx of people with different backgrounds and carrying out effective social and physical planning of cities. Moreover, migrants to date are not always limited to legal and permanent ones since the scale of immigration outside formal channels also continues to enlarge. So the challenges must extend to the issues involving newcomers who do not have an authorized residential status.

In conclusion, the urban planning of this century needs to integrate socioeconomic development and physical city design to accommodate demographically and culturally heterogeneous people. As discussed throughout this paper, in Southeast Asia where dramatic urbanization and demographic transitions have been witnessed, the profiles of urban inhabitants have greatly changed. Given the firm prediction that those trends will keep accelerating, what has happened in Southeast Asia may forecast what will happen globally in the near future. In order to formulate the inclusive development that Goal 11 aims to achieve, research in the field should revisit the question of why most of the cities and countries have been left behind to catch up with urban demographic changes.

1　UN-DESA (2017)
2　World Bank (2016)
3　Wang and Sun (2016)
4　Blue and Espenshade (2011)
5　UN-DESA (2013)
6　Kato et al. (2013)
7　Bloom and Williamson (1998); Lee (2003); Bongaarts (2009)
8　UN-DESA (2003)
9　Bloom and Williamson (1998)
10　Kato et al. (2013)
11　UN-DESA (2017); World Bank (2017)
12　Boulier (1985)
13　Jones (1984)
14　Hirschman and Guest (1990)

15 Caldwell et al. (2002)
16 Jhpiego (2017)
17 Hirschman and Bonaparte (2012)
18 Sato and Yamamoto (2005, p. 47)
19 Uchiyama and Hayashi (2016)
20 Caldwell and Caldwell (1997)
21 Sato and Yamamoto (2005)
22 Douglass and Jones (2008)
23 UNCTAD (1992; 1993)
24 Konagaya (1999)
25 Knox and McCarthy (2014)
26 Oizumi (2009)
27 Jones and Douglass (2008, p. 6)
28 Soegijoko (1996)
29 Fontana, Joekes and Masika (1998)
30 Kanji and Menon-Sen (2001)
31 Fontana, Joekes and Masika (1998)
32 Hirschman and Bonaparte (2012)
33 Hirschman (2001)
34 Lutz (2014)
35 Republic of the Philippines Commission on Population (2002)
36 Oizumi (2009)
37 Hirschman (1994)
38 Oizumi (2007)
39 UN-DESA (2017)
40 Oizumi (2015)
41 Jones, Straughan and Chan (2009)
42 Knox and McCarthy (2014)
43 Douglass and Jones (2008)
44 Ezeh, Kodzi and Emina (2010)
45 Ezeh, Kodzi and Emina (2010)
46 Ezeh, Kodzi and Emina (2010, p. 110)
47 Jones and Douglass (2008, p. 7)
48 UN-DESA (2013)
49 Hugo (2012, p. 135)
50 Sassen (1994); Stalker (1994); Abella (1995); Douglass (1999)
51 Castles and Miller (1994)

52 Stalker (1994)

Notes

i. This is collected by custom online data acquired via UN-DESA website: World Population Prospects the 2017 Revision.

ii. The World Bank adopts four classifications according to a country's gross national income (GNI) per capita. As of 2018, those are: (1) high income countries with more than US$ 12,056, (2) upper-middle income countries between US$ 3,896 and US$ 12,056, (3) lower-middle income countries between US$ 996 and US$ 3,895, and (4) low-income countries with less than US$ 995. Based on this definition, in Southeast Asia, Singapore and Brunei are categorized as high income countries.

iii. The definition of "less developed regions" in the statistics of UN-DESA includes all the countries except for the ones in more developed regions: Europe, Northern America, Australia, New Zealand and Japan.

iv. This is the data of "crude death rates," which refer to a number of deaths per 1,000 population (UN-DESA, 2017).

v. Hull (2012, p. 50) adds an extra analysis to this statement by saying that "low levels of education are associated with high fertility, but only because, relative to their more-educated counterparts, less-educated women are likely to marry earlier and may not seek out and adopt contraceptive methods."

vi. Actually, in the case of Japan, the end of its population bonus period was between 1990 and 1995, and those years exactly overlapped with the era named "a lost decade" in Japan (Sugaya, 2012).

vii. Singapore initiated its pronatalist schemes in the late 1980s with the aims of preventing population decline, avoiding an unbalanced age structure and sharp aging, and ensuring the continued increase of the workforce (Jones and Leete, 2002). Singapore's policies are well known as a forward-looking effort.

References

Abella, Manolo L. (1995). "Asian Labor Migration: Past, Present, and Future," *ASEAN Economic Bulletin*, 12(2), pp. 125–135.

Bloom, David E. and Jeffrey G. Williamson (1998). "Demographic Transitions and Economic Miracles in Emerging Asia," *The World Bank Economic*

Review, 12(3), pp. 419-455.

Blue, Laura and Thomas J. Espenshade (2011). "Population Momentum across the Demographic Transition," *Population and Development Review*, 37(4), pp. 721-747.

Bongaarts, John (2009). "Human Population Growth and the Demographic Transition," *Philosophical Transactions of the Royal Society of London, Series B, Biological Sciences*, 364, pp. 2985-2990.

Boulier, Bryan (1985). "Family Planning Programs and Contraceptive Availability: Their Effects on Contraceptive Use and Fertility," In Birdsall, Nancy (ed.), *The Effects of Family Planning Programs on Fertility in the Developing World* (pp. 41-115). World Bank Staff Working Paper 677. Washington, D. C., US: World Bank.

Caldwell, John C. and Pat Caldwell (1997). "What Do We Now Know about Fertility Transition?" In Jones, Gavin W., Douglas, Robert M., Caldwell, John C. and Rennie M. D'Souza (eds.), *The Continuing Demographic Transition* (pp. 15-25). Oxford, UK: Clarendon Press.

Caldwell, John C., Phillips, James F. and Barkat-e-Khuda (2002). "The Future of Family Planning Programs," *Studies in Family Planning*, 33(1), pp. 1-10.

Castles, S. and M. J. Miller (1994). "The Age of International Migration," *The Urban Age*, 2(3), pp. 1-5.

Douglass, Mike (1999). "Unbundling National Identity: Global Migration and the Advent of Multicultural Societies in East Asia," *Asian Perspective*, 22(3), pp. 79-128.

Douglass, Mike and Gavin Jones (2008). "The Morphology of Mega-Urban Regions Expansion." In Jones, Gavin W. and Mike Douglass (eds.), *Mega-Urban Regions in Pacific Asia: Urban Dynamics in a Global Era* (pp. 19-40). Singapore: NUS Press.

Ezeh, Alex C., Kodzi, Ivy and Jacques Emina (2010). "Reaching the Urban Poor with Family Planning Services," *Studies in Family Planning*, 41(2), pp. 109-116.

Fontata, Marzia, Joekes, Susan and Rachel Masika (1998). "Global Trade expansion and liberalisation: gender issues and impacts," A study prepared for the Department for International Development, Report No 42. Brighton, UK: Institute of Development Studies.

Hirschman, Charles (1994). "Why Fertility Changes," *Annual Review of Sociology*, 20, pp. 203-233.

Hirschman, Charles (2001). "Fertility transition in Southeast Asia," In Smelser,

Neil J. and Paul B. Baltes (eds.), *International Encyclopedia of the Social and Behavioral Sciences* (pp. 5597-5602). Oxford, UK: Elsevier.

Hirschman, Charles and Sabrina Bonaparte (2012). "Population and Society in Southeast Asia: A Historical Perspective," In Williams, Lindy and Michael Philip Guest (eds.), *Demographic Change in Southeast Asia: Recent Histories and Future Directions* (pp. 5-41). Ithaca, US: Cornell Southeast Asia Program Publications.

Hirschman, Charles and Philip Guest (1990). "The Emerging Demographic Transitions of Southeast Asia," *Population and Development Review,* 16(1), pp. 121-152.

Hugo, Graeme (2012). "Changing Patterns of Population Mobility in Southeast Asia," In Williams, Lindy and Michael Philip Guest (eds.), *Demographic Change in Southeast Asia: Recent Histories and Future Directions* (pp. 121-163). Ithaca, US: Cornell Southeast Asia Program Publications.

Hull, Terence H. (2012). "Fertility in Southeast Asia," In Williams, Lindy and Michael Philip Guest (eds.), *Demographic Change in Southeast Asia: Recent Histories and Future Directions* (pp. 43-64). Ithaca, US: Cornell Southeast Asia Program Publications.

Jhpiego (2017). "Myanmar Family Planning Landscape Analysis," Available: http://ec2-54-210-230-186.compute-1.amazonaws.com/wp-content/uploads/2017/06/Jhpiego-FP2020-FP-Landscape-Analysis_final-approved.pdf (accessed September 10, 2018).

Jones, Gavin W. (1984). "Asia's Demographic Transition: Successful or Stalled?" In Jones, Gavin W. (ed.), *Demographic Transition in Asia* (pp. 1-30). Singapore: Maruzen Asia.

Jones, Gavin W. and Richard Leete (2002). "Asia's Family Planning Programs as Low Fertility is Attained," *Studies in Family Planning,* 33(1), pp. 114-126.

Jones, Gavin, Straughan, Paulin Tay and Angelique Chan (2009). "Very low fertility in Pacific Asian countries: causes and policy responses," In Jones, Gavin, Straughan, Tay, Paulin and Angelique Chan (eds.), *Ultra-low Fertility in Pacific Asia: trends, causes and policy issues* (pp. 1-22). Oxon, UK: Routledge.

Kanji, Nazneen and Kalyani Menon-Sen (2001). *What does the Feminisation of Labour Mean for Sustainable Livelihoods?* World Summit on Sustainable Development, International Institute for Environment and Development (IIED).

Kato, Iwao, Takahashi, Ren and Tomoko Matsuda (2013). "Tonan-ajiachiiki no shoshikoreika to sono taishosaku no wakugumi ni kansuru kosatsu (Analysis on conditions of and measures to declining birthrate and aging population in Southeast Asia)," *Tozai Nanboku: Bulletin of the Wako Institute of Social and Cultural Sciences*, pp. 226-242.

Knox, Paul L. and Linda M. McCarthy (2014). *Urbanization: An Introduction to Urban Geography.* Essex, UK: Pearson.

Konagaya, Kazuyuki (1999). "Toshi kozo (City Structure)," In Miyamoto, Kensuke and Kazuyuki Konagaya (eds.), *Ajia no Daitoshi* (Megacities in Asia) [2] *Jakarta* (pp. 87-116). Tokyo, Japan: Nihon Hyoronsha.

Lee, Ronald (2003). "The Demographic Transition: Three Centuries of Fundamental Change," *Journal of Economic Perspectives*, 17(4), pp. 167-190.

Lutz, Wolfgang (2014). "A Population Policy Rationale for the Twenty-First Century," *Population and Development Review*, 40(3), pp. 527-544.

Oizumi, Keiichiro (2007). *Oiteiku Ajia* (Aging Asia). Tokyo, Japan: Chuo Koron Shinsha.

Oizumi, Keiichiro (2009). "Senshinkokuka suru chuugoku • tonan-ajia no daitoshi: megacity kara megaregion he (Megacities in developed China and Southeast Asia: from megacities to mega-regions)," *Kantaiheiyo Bujiness Joho* (Research for International Management), 9(32), pp. 25-51.

Oizumi, Keichiro (2015). "Jinkomen kara miru higashi-ajia keizaishakai: jinko sensasu kenkyu niyori akirakani narukoto (East Asia's Economy and Society from the viewpoint of demography: finding from the results of population censuses)," *Ajiken World Trend*, 238, pp. 4-7.

Republic of the Philippines Commission on Population (2002). "Philippines: Country Reports," A paper submitted at the Fifth Asian Pacific Population Conference, Bangkok, December 11-17, 2002.

Sassen, Saskia (1994). "Economic Internationalization: The New Migration in Japan and the United States," *Social Justice*, 21(2), pp. 62-82.

Sato, Yasuhiro and Kazuhiro Yamamoto (2005). "Population concentration, urbanization, and demographic transition," *Journal of Urban Economics*, 58, pp. 45-61.

Soegijoko, Budhy Tjahjati S. (1996). "Jabotabek and globalization," In Lo, Fuchen and Yue-man Yeung (eds.), *Emerging world cities in Pacific Asia* (pp. 377-414). Tokyo Japan: United Nations University Press.

Stalker, Peter (1994). *The Work of Strangers: A Survey of International Labor Migration.* Geneva, Switzerland: ILO.

Sugaya, Hironobu (2012). "Tonan-ajia shokoku no jinkohendo: shoshikoreka no genjo to shorai yosoku (Demographic change in South East Asian countries: Considering current conditions and future prospects)," *The Journal of Gifu Keizai University,* 46(1), pp. 57-77.

Uchiyama, Yuta and Reiko Hayashi (2016). "2 Megacity no tayosei to kyoutsuusei: toshichiikiseitaiken, jinkoken (Diversity and similarities of megacities: biospheres of urban regions, population areas)," In Muramatsu, Shin, Fukami, Naoko, Yamada, Kyota and Yuta Uchiyama (eds.), *Megacity 2 Megacity no shimpo to tayosei* (Megacities: Vol. 2 Evolution and Diversity of Megacities) (pp. 13-52). Tokyo, Japan: University of Tokyo Press.

United Nations Conference on Trade and Development (UNCTAD) (1992). *World Investment Report 1992: Transnational corporations as engines of growth.* New York, US: UN Publication.

United Nations Conference on Trade and Development (UNCTAD) (1993). *World Investment Report 1993: Transnational corporations and integrated international production.* New York, US: UN Publication.

United Nations Department of Economic and Social Affairs, Population Division (UN-DESA) (2003). *World Urbanization Prospects: the 2002 Revision.* New York, US: United Nations.

United Nations Department of Economic and Social Affairs, Population Division (UN-DESA) (2013). *World Population Policies 2013.* New York, US: United Nations.

United Nations Department of Economic and Social Affairs, Population Division (UN-DESA) (2017). *World Population Prospects: the 2017 Revision.* New York, US: United Nations.

Wang, Qingfeng and Xu Sun (2016). "The Role of Socio-political and Economic Factors in Fertility Decline: A Cross-country Analysis," *World Development,* 87, pp. 360-370.

World Bank (2016). "Database: Urban Development," Available: http://data.worldbank.org/topic/urban-development (Accessed September 12, 2016).

World Bank (2017). "Database: World Development Indicator," Available: http://databank.worldbank.org/data/reports.aspx?source=world-development-indicators (Accessed January 6, 2017).

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