Confronting Asia's Challenging Demographic Realities

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Productivity Insights

Vol. 4–5



Asian Productivity Organization

The Asian Productivity Organization (APO) is an intergovernmental organization that promotes productivity as a key enabler for socioeconomic development and organizational and enterprise growth. It promotes productivity improvement tools, techniques, and methodologies; supports the National Productivity Organizations of its members; conducts research on productivity trends; and disseminates productivity information, analyses, and data. The APO was established in 1961 and comprises 21 members.

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DECEMBER 2023 ASIAN PRODUCTIVITY ORGANIZATION

PRODUCTIVITY INSIGHTS Vol. 4-5 Confronting Asia's Challenging Demographic Realities

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First edition published in Japan by the Asian Productivity Organization 1-24-1 Hongo, Bunkyo-ku Tokyo 113-0033, Japan www.apo-tokyo.org

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PREFACE

The P-Insights, short for "Productivity Insights," is an extension of the Productivity Talk (P-Talk) series, which is a flagship program under the APO Secretariat's digital information initiative. Born out of both necessity and creativity under the prolonged COVID-19 pandemic, the interactive, livestreamed P-Talks bring practitioners, experts, policymakers, and ordinary citizens from all walks of life with a passion for productivity to share their experience, views, and practical tips on productivity improvement.

With speakers from every corner of the world, the P-Talks effectively convey productivity information to APO member countries and beyond. However, it was recognized that many of the P-Talk speakers had much more to offer beyond the 60-minute presentations and Q&A sessions that are the hallmarks of the series. To take full advantage of their broad knowledge and expertise, some were invited to elaborate on their P-Talks, resulting in this publication. It is hoped that the P-Insights will give readers a deeper understanding of the practices and applications of productivity as they are evolving during the pandemic and being adapted to meet different needs in the anticipated new normal.

VI | CONFRONTING ASIA'S CHALLENGING DEMOGRAPHIC REALITIES

INTRODUCTION

Asia's demography is remarkable in both scale and diversity. The region accounts for over half of the world's population and has a wide array of demographic profiles: from high fertility and young population structures to aging populations with declining rates of fertility and longer life expectancy. Such demographic conditions have profound sociopolitical, socioeconomic, and environmental resonance in both the regional and global spheres. East Asia, comprising economies like Japan, PR China, the Republic of Korea (ROK), the Republic of China (ROC), and Hong Kong, stands out as one of the world's fastest-aging regions that has registered natural population declines in recent years. This implies that in some countries in the region, there are more deaths than births. This demographic shift is in stark contrast to the rest of the region, which continues to exhibit natural increases, and thus positive rates of population growth, albeit at a slower pace. These countries are expected to continue to grow in the coming decades.

Asia has also witnessed increased geographic mobility within the region and to other regions of the world in recent decades. With industrialization and urbanization, people moved from rural to urban areas. Globalization has facilitated migration across borders, particularly for employment, with some countries institutionalizing labor export as part of their development agendas (e.g., the Philippines).

The changing demographics of the Asian continent present both opportunities and challenges, requiring policy attention and innovative strategies to effectively address the complex issues at hand. The youthful population structures in certain countries offer a potential demographic window to drive substantial economic growth. This was the experience of most East Asian countries, notably PR China, the ROK, and Japan. Some countries in South and Southeast Asia, such as Lao PDR, the Philippines, Cambodia, and Indonesia among others, are currently experiencing a youthful demographic bulge due to persistently high birth rates and are poised to reap this demographic dividend but only if proper human resources and economic development policies are in place. Failing to take proactive steps that will capitalize on the potential gains derived from their changing age structure will make them miss out on this economic potential completely.



On the other end of the demographic spectrum are aging societies that necessitate sustained innovation in policies to navigate the challenge of supporting an increasingly older population, especially amid a diminishing workforce. Strategies that adapt to this aging demographic, such as healthcare systems, social welfare support, and programs that cater to the needs of older citizens, are crucial. Migration policies that will counteract the decline in the domestic labor force resulting from an aging population are necessary as the shifting age structure necessitates a substantial influx of migrant caregivers to meet the rising care demands of the growing elderly population. Finding solutions to support an aging population without burdening the economy and the workforce is imperative for the sustained well-being of these societies.

In this issue of P-Insights, we provide an overview of Asia's diverse demographic landscape and explore the factors that contributed to the demographic transitions that countries in the region have experienced or are experiencing, and the implications of these changes. It starts with an introduction of basic demographic concepts and processes, highlighting the importance of population in the context of productivity and development. The discussion cites lessons from various Asian countries in order to bring to the fore the importance of contextually appropriate policies but at the same time highlights issues that can potentially help address similar situations encountered by other countries in the region. We will look at the examples of how countries that have already experienced a demographic transition are dealing with the challenges of an aging population structure. For instance, programs that promote active and healthy aging ensure longer years in the labor force, which in turn helps stabilize labor force requirements and sustain productivity in the context of a dwindling number of people of working age due to age structural change.

During the early years of economic development of what was known as Asia's tiger economies (Singapore, Hong Kong, the ROC, and ROK), strong human capital investments produced a steady supply of better-educated labor. This contributed to the region's ability to reap demographic dividends that ushered in and sustained economic growth and development. In subregions of Asia, particularly Central Asia and some countries of South Asia, where the fertility rate is still high, the challenge of curbing population growth remains, while at the same time maximizing the potential of a youth bulge that will be joining the workforce in the years to come.

ASIA'S DEMOGRAPHIC HODGEPODGE: SOCIETIES IN TRANSITION, IN STAGNATION, OR ON THE BRINK?

The global population has undergone significant demographic shifts in the past century. The demographic transition experienced by developed Western societies reveals how those countries progressed from a situation of high fertility and high mortality to one that led to rapid population growth with falling mortality and still high levels of fertility. The period of rapid growth, however, was temporary. Societies eventually experienced a new population equilibrium marked by low and stable birth and death rates. Alongside this observed demographic evolution is a change in the population age structure. Fertility declines and improvements in life expectancy led to the maturation and aging of populations.

Across the subregions of the continent, there is a wide disparity in key population indicators. South Asia, comprising Afghanistan, Bangladesh, Bhutan, India, I.R. Iran, Maldives, Nepal, Pakistan, and Sri Lanka, has the highest population, with about 2 billion in 2022 (Table 1). The population of the subregion is expected to grow in the coming years given its positive rate of natural increase of 1.4, higher than the rate of natural increase for Asia as a whole (0.8). Of the five major subregions of Asia, Central Asia has the highest rate of natural increase and the youngest population structure. In 2022, a third of the subregion's population was below the age of 15 years [1]. Central Asia includes the countries of Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan.

Asia today houses the majority of the world's population, accounting for 60% of the total [2]. This is no surprise given that five of the most populous countries in the world, PR China, India, Indonesia, Pakistan, and Bangladesh, are in Asia. PR China and India combined have about 2.8 billion people. Both

TABLE 1

POPULATION INDICATORS OF ASIA, 2022.

	Population (million)	Rate of natural increase	Population aged <15 years (%)	Population aged ≥65 years (%)
Asia	4,730	0.8	24	10
Western Asia	294	1.3	28	6
Central Asia	78	1.9	31	5
South Asia	2,008	1.4	27	6
Southeast Asia	676	0.8	25	8
East Asia	1,674	0.0	18	15

Source: Population Reference Bureau, 2022 World Population Data Sheet [1].

countries offer divergent and contrasting demographic trajectories. PR China has been recognized as the world's most populous country for decades, reaching the billion mark as early as the 1980s. It was also known for its success in curbing population growth by controlling fertility through an aggressive one-child policy that was in effect from 1980 to 2015 [3].

However, by 2023, the UN [4] projected that India would overtake PR China as the most populous country, with 1.4 billion people. The two countries had almost similar levels of fertility in 1971. But while fertility in China sharply decreased, India experienced a more gradual decline. With its youthful population, it remains to be seen whether India will be able to take the same demographic trajectory as PR China did five decades ago.

Its rich tapestry of cultures, languages, religions, and traditions contributes to Asia's diverse demographic profile. While generally all regions in the continent have been experiencing a declining population growth rate over time, the East Asian region has traditionally registered the lowest growth rate, even posting a negative rate of growth in recent years (Figure 1). Japan's shrinking population is most notable, with its population peaking in 2010 at 128 million [5] and is projected to shrink to 86.7 million by 2060 [6].



The demographic disparity across countries in the Asian region is also evident in the age structure as indicated by the median age. As shown in Table 2, Japan has the highest median population age at 48.4 years, the second highest in the world after Monaco [2]. This means that half of Japan's population is older than 48 years. At the other extreme are young population structures such as in Cambodia and the Philippines with median ages of 26.5 and 24.5 years, respectively (Table 2).

TABLE 2						
MEDIAN AGE IN SELECTED ASIAN COUNTRIES, 2021.						
Country	Median age (as of 01 July 2021)					
Japan	48.36					
Hong Kong	44.86					
ROK	43.35					
Singapore	41.78					
ROC	41.35					
Thailand	39.27					
PR China	37.95					
Vietnam	32.02					
Malaysia	29.90					
Indonesia	29.44					
India	27.60					
Cambodia	26.52					
Philippines	24.50					

Source: United Nations, Department of Economic and Social Affairs, Population Division [2].

DRIVERS OF DEMOGRAPHIC CHANGE: FERTILITY, MORTALITY, AND MIGRATION

Population change refers to the variation in the size and composition of the population over time and is affected by the three components of fertility or births, mortality or deaths, and migration. Population changes as a result of what demographers call natural increase, which refers to the difference between births and deaths, and the net migration or the difference between the number of people who are moving in (in-migration) and those who are moving out (out-migration) [7]. This section discusses the three components of population dynamics in Asia.

Fertility rates, typically measured by the total fertility rate (TFR), play a pivotal role in driving demographic changes and impacting population growth in Asia. The TFR represents the average number of births per woman throughout her lifetime and serves as a fundamental indicator of population dynamics. For many countries in Asia, fertility is the major driver of population increase.

There has been a rapid fertility transition that occurred in the region, with fertility decline outpacing that of many European and other Western countries. East Asian nations have experienced an extraordinary drop in fertility, reaching levels well below the replacement rate since the 1990s. By 2020, most countries in Southeast and East Asia had TFRs below the replacement level of 2.1 (Figure 2). The ROK's TFR even dropped to 0.8 in 2023, making it the country with the lowest fertility in the world since 2013 [8]. Other countries such as Cambodia, Myanmar, Mongolia, and Lao PDR are projected to maintain fertility levels above replacement rates over the next decades [9]. Replacement fertility, defined by a TFR of 2.1, is necessary to sustain the current population size [10].

The notable decline in fertility levels, specifically in East Asian countries, can be attributed to various factors, such as a significant improvement in education, particularly among women. Rapid economic growth also encourages increased



female workforce participation. These societal changes led to delayed marriage and subsequently a late start in childbearing. In Japan, for instance, there has been a shift from traditional marriage to a more widely accepted practice of cohabitation, resulting in a reduced incidence of childbearing within cohabiting relationships [11]. In the case of the ROK, despite the government's investment that has reached about USD200 billion to stem fertility decline, not much difference was observed in the past 16 years. Structural problems not directly related to fertility remain unaddressed, such as affordable housing and attitudes about family and work [8].

Mortality, or the occurrence of deaths, is another determinant of population dynamics. The mortality experience of a population is best summarized by the life expectancy at birth or the average number of years that a person can expect to live at birth. The steady increase in life expectancy across time can be explained by advances in healthcare, improved medical treatments, better access to healthcare services, healthier lifestyles, and various technologies, among others. As more people live longer lives, a larger proportion of the population enters the older age brackets, triggering an age structural change resulting in the aging of the population. Population aging refers to the increasing count and proportional rise of individuals within older age brackets, specifically around 60 or 65 years old, as defined by the United Nations [12].

A substantial disparity in life expectancy at birth exists across Asia (Figure 3). Japan and Hong Kong are among those with the highest life expectancies not only in the Asian region but also globally. As of 2021, UNDESA estimated an



average life expectancy of 88.3 and 82.7 years for female and male residents in Hong Kong, respectively [2]. The data for Japan for the same period were 87.7 and 81.8 years, respectively. At the lower end of the Asian spectrum is India, which for the same period registered 68.9 and 65.8 years, respectively. These disparities reflect the wide range of economic development, healthcare provisions, social policies, and overall quality of life standards across Asia.

Generally, females tend to outlive their male counterparts by a margin of 2 to 5 years. This difference in life expectancy is primarily due to higher mortality rates among males compared to females across various stages of the life cycle.

Migration is the third demographic factor affecting population change. Generally, people move in search of better economic opportunities, improved living standards, education, or escape from environmental challenges. The scale and diversity of migration among Asians reflect a range of factors including economic disparities, geopolitical conditions, labor demands, conflicts, and environmental challenges that make populations cross national and regional boundaries to destinations within and outside Asia.

Figure 4 shows the net migration rates in selected Asian countries from 2018 to 2021. Except for PR China, countries that have undergone significant demographic shifts from a young population to an aging one also gained in migration flow, with a positive net migration rate. This implies that during the period, more people were coming into the country than going out. In contrast, countries with still high population growth exhibited a negative net migration rate. These include the Philippines, India, Cambodia, and Indonesia.

India and PR China are not only the world's most populous countries but also major migrant-sending countries [13]. Moreover, in 2022, five of the top 10 remittance-receiving countries were found in the Asian region: India, PR China, the Philippines, Bangladesh, and Vietnam [14].

Labor migration is one of the dominant moves within Asia. Countries like the Philippines and India are known for sending a high number of migrant workers to Asian countries like Singapore and the United Arab Emirates [15, 16]. Other major destinations for migrant workers include North America and Europe. Labor migrants from the Philippines are mostly health professionals, domestic and service workers, and, more recently, IT professionals [17].



As fertility rates fall in many countries around the world, international migration can help combat the shrinking population size of destination countries. The aging of populations leads to labor shortages; immigrants who are mostly in their productive ages can increase the pool of workers in the destination countries which are necessary to maintain productivity. Immigrants usually take on work that the local population may not want or prefer, thus allowing them to pursue their own productive endeavors. This idea is captured in Hochschild's [18] "global care chain," which refers to the migration of women from the global South to the North to work as nannies or childcare providers, leaving their own children at home in the care of another family member or a nanny. Related to the issue of aging and international migration is transborder retirement migration, where pensioners from wealthy countries like Japan and the ROK are lured to countries where the cost of healthcare or services is lower [19]. Another well-established pattern is "sunbird migration," a term used for movement to places with a more attractive climate [20].

Similar to the disparities in fertility and mortality, there are notable disparities in migration patterns across Asia, reflecting the varying conditions in the region. Net migration data for the period 2018–21 show Singapore, the ROK, Malaysia, Japan, and the ROC among the top population gainers, while Cambodia and the Philippines were among the net outmigration areas [2]. For sending regions, economic factors are the main drivers for migration. The volume of migration can likewise be measured in the amounts of remittances that helped to reduce poverty by increasing income for migrants' families. In the Philippines, for example, remittances sent home by overseas Filipino workers reached USD36 billion in 2022, about 2% of the country's GDP [21]. In 2005, remittance flow to the Philippines comprised 13% of GDP [22].

IMPLICATIONS OF DEMOGRAPHIC CHANGE

One clear demonstration of the demographic transformation–economic growth nexus is the concept of demographic dividend. The first demographic dividend happens when fertility and mortality declines result in age structural change that opens a demographic window of opportunity. A fall in fertility rates will be translated into fewer children relative to the rising share of the population of working age. As a result, the share of the population that is working is likely to rise relative to the share that is not working (the young and the old), and this can potentially lead to faster GDP growth per capita and create room for rising social expenditure [23].

The first dividend is transitory in nature and will last for a few decades. If a low fertility rate is sustained, it will eventually reduce the growth rate of the labor force, and the proportion of dependent older population increases. The demographic window of opportunity will close as the population of working age starts to decline relative to the share of the population of older ages. If the labor force participation rate (LFPR) pattern by age and gender remains unchanged, there will be fewer workers relative to nonworkers, undermining growth in living standards and the sustainability of social expenditures [24]. Subsequently, per capita income grows more slowly, and the first dividend turns negative.

For many countries in the Asian region, the first demographic window has already closed, but for others, particularly those with a younger age structure, the window remains open. For these countries, the population will remain relatively young, and the working-age population has the potential to expand, putting a strain on labor markets unless the economy can absorb the increase in the number of workers. The challenge is to put in place education and health reforms to maximize the productivity of the younger labor force. This is true for countries like the Philippines where male LFPR among those aged 15–24 years is less than 50%, with the corresponding figure for their female counterparts almost half of that [25].

The maturing of population structures presents unique challenges, particularly in ensuring sustainability. Older age structure is associated with lower productivity, and the older population poses a greater fiscal burden to governments through increased public expenditure and pension schemes [26].

HOW DO WE ENSURE SUSTAINABILITY IN THE CONTEXT OF AGING?

Lutz et al. [27] proposed a special focus on human capital development as the ultimate resource for sustainable development. They measure human capital in terms of the educational attainment of the working population. In their view, a better-educated population has greater economic growth potential and is less vulnerable. Under this framework, it is not sufficient to look at changes in population size and age structure alone when discussing the consequences of population aging. Lutz et al. proposed a change from exclusively studying the quantity of people to adding a quality dimension, i.e., the skills and productivity of the population. In this framework, the ratio of human capital is decisive for the performance and achievement of a nation.

Developing countries in Asia are experiencing strong human capital development due to increased investments in improving children's welfare and potential. Today, more Asian children are staying longer in school, and the gender gap in education has largely closed [28]. This human resources development is evident in Figure 5, which shows population projection transitions in Asia in terms of age, gender, and education, indicating a better-educated population over time. According to Lutz [29], "...some hope exists that the smaller number of young people in aging societies can at least be compensated by better education of these smaller cohorts and in consequence by higher productivity.... If one takes into consideration this qualitative factor, the outlook for the aging societies in Europe and East Asia are not as bad as the statistics suggest."

Sustained investment in education will translate into a further reduction in fertility and an improvement in the education profile of the incoming cohorts of older people. Currently, however, the gap in schooling between young and old remains wide and visible across Asian countries. Investing in adult learning and skill retooling will help ease the expected changes in productivity levels with changing age profiles. Failure to do so may affect productivity and strain the level of technology adoption, which can slow economic growth.

One way to maximize the growth potential of fast-aging demographics in Asia is to keep older cohorts economically active in order to sustain labor productivity. This is expected to reap the silver dividend coming from the growth potential of the increasing number of healthy and longer lives.



DISCUSSION AND CONCLUSION

What are the possible policy responses to these demographic imperatives in Asia? What is clear is that as a region, Asia presents a mix of demographic realities that stem from the significant diversity of its processes of fertility, mortality, and migration. This presents policy challenges that are both unique for each country and at cross-country levels. The divergent demographic realities also reflect an interplay of education, economic opportunities, evolving societal norms, and government policies that influence fertility, health, migration, and other population trends in the region. This requires a multifaceted approach and societal adaptation to address the impacts of such demographic changes.

On the one hand, economically developed countries are hard-pressed to address the concerns of an aging population. This includes pronatalist policies that hope to address the persistent low fertility rates. PR China, for example, dropped its one-child policy in 2015 and encouraged families to have more children by providing incentives such as maternity leave packages for working mothers [31]. Direct subsidies for childbearing and childcare were also adopted in Japan [32], while in the ROK, a generous paid leave package that allows for one-year to one-and-a-half-year parental leave and an increased stipend of USD230 per month to parents with children below 1 year of age are provided [8].

But so far these policies have failed to change the underlying fact that many young East Asians simply do not want children. Some researchers think that the fertility rates in the East Asian region will remain very low for years unless forceful, innovative policies are implemented [33].

Low fertility seems resistant to pronatalist policy innovations. This finds support in the European experience where below-replacement fertility is persistent. Europe's below replacement-level fertility is a long-term trend that has persisted for over three decades now [2]. Asia can learn from Europe in adopting immigration policies to address the problem of a shrinking workforce. In recent years, Japan has taken this initiative by relaxing immigration rules that will allow more foreign workers to enter the country, for longer periods of time, and in some cases, with a path toward attaining citizenship [34]. The influx of young migrants can help ease the burden of caring for the older population. There are also existing programs that promote living longer lives and encourage longer working lives. This aims to promote employment at older ages as a key response to cope with the challenges arising from population aging. Related to this are efforts to promote active aging or prolonging the remaining years in an active state.

Half of the world's population are women, and with improvement in women's access to education in past decades, they represent a very important resource. However, despite women's higher educational attainment than men, this does not translate into productivity as women's labor force participation remains lower than men's. Addressing the barriers to women's employment, such as cultural and social norms that privilege men as breadwinners, the burden of care that women often assume, gender gaps in earning, and discrimination in the workplace, is necessary in order to foster a work–family balance that allows both men and women to engage in productive work.

Living longer and healthier lives can be achieved by all countries, but it will require tackling the impacts of demographic changes early on. This involves improving healthcare systems, addressing poverty and education, providing access to clean water and sanitation, and promoting healthier lifestyles. However, bridging the demographic gaps involves complex and multifaceted solutions that may take time to implement effectively.

Finally, there is a need for further research to enhance the health and wellbeing of older persons, particularly those residing in low- and middle-income Asian countries. Evolving family and household structures, driven by labor migration and declining fertility rates, will require innovative technologies such as robotics to advance elder care. Research efforts can focus on how to make technologies developed in advanced aging societies more culturally acceptable across diverse Asian contexts. There is also a need to ensure the positive social and psychological well-being of older individuals in the context of social change as well as to examine changing filial piety norms in the region and their implications for intergenerational relationships. Creating environments that foster social inclusion, strengthen interpersonal connections, and mitigate social isolation and loneliness among older people is important. Greater integration of the older generations within their communities through both physical and social activities is also vital for promoting their physical and psychological well-being.

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