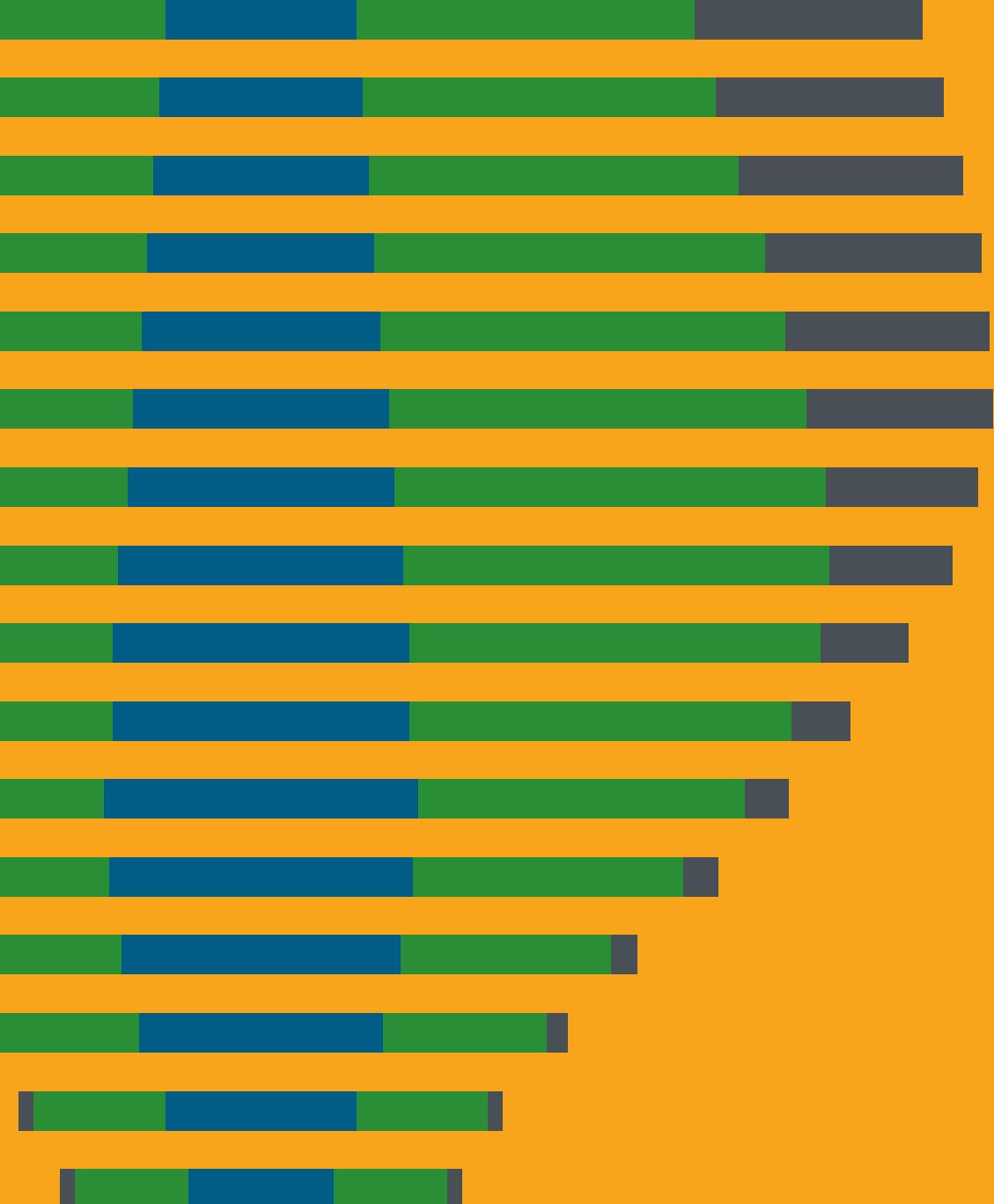




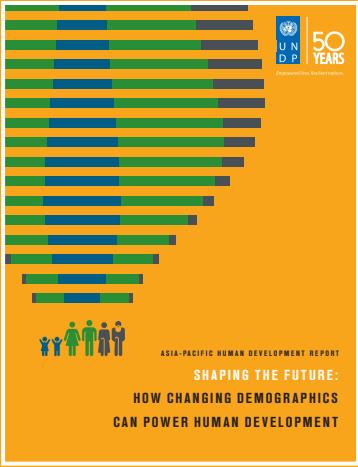
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ASIA-PACIFIC HUMAN DEVELOPMENT REPORT

# SHAPING THE FUTURE: HOW CHANGING DEMOGRAPHICS CAN POWER HUMAN DEVELOPMENT



Asia-Pacific has been witnessing dramatic shifts in its population. Since 1950, the share of children has consistently contracted, while the shares of working-age and elderly people have steadily risen. On the cover of this report, patterns in the balloon depict shifting shares from 1950 until 2100. Population dynamics and a period of demographic transition will transform the future of the region, with profound implications for human development.

The picture of a girl and a boy, a working-age woman and man, and an older woman and man convey that all people—including those with other gender identities—are inherently valuable and ought to be equal members of families and societies. Together, they represent how collaboration and interdependence can lead to greater mutual well-being. Ensuring equal rights and opportunities for all population groups will determine collective strength and resilience. Leveraging the capacity and creativity of different people will enable countries to reach higher levels of human development.

The depiction of a hot air balloon carrying the people of the region upwards represents dynamic change and optimism. The balloon can take the region, with more than half the world's population, to new heights, in any direction. In a time of change, the ability to navigate in the right direction will depend on clear, well-informed policy choices and abilities to adjust to changing needs. Making the most of the dividend that can accrue from demographic transition will require countries to read the wind, and to remain alert and responsive to impending challenges as well as opportunities.

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Published for the United Nations  
Development Programme (UNDP)



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# ASIA-PACIFIC HUMAN DEVELOPMENT REPORT TEAM

SHAPING THE FUTURE: HOW CHANGING DEMOGRAPHICS  
CAN POWER HUMAN DEVELOPMENT

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# FOREWORD

We live in times of great instability and change. That is apparent as in the Asia-Pacific region, home to half of humanity as it is anywhere else in the world. The sheer size of the region development choices will impact on the futures of people everywhere.

In 2015, Asia-Pacific countries joined the international consensus on an ambitious vision to frame and guide those choices. Agenda 2030 and its seventeen Sustainable Development Goals, along with the major international agreements in 2015 on disaster risk reduction, financing for development, and climate change, have profound implications for all societies. Taken together, these agendas embody a common commitment to development which is sustainable, inclusive, and resilient. Advancing this agenda is an opportunity to build people's capabilities, provide opportunities for communities to thrive, and promote stewardship of natural resources to benefit people now and for generations to come.

The Asia-Pacific with its economic dynamism and vast wealth in human resources is in a good position to realize the vision of the 2030 Agenda, and to be at the vanguard of the transformation which its implementation requires. Many countries in the region have improved living standards to a point where their population profile offers a distinct advantage—namely, smaller shares of young and old dependents, and larger shares of people in their productive working years who can power development.

Making the most of this period—which will not last forever—requires smart policies and investments. The greatest advances will come from

recognizing that human development, where all people have access to education, health care, and a decent income, produces the demographic transition which leads to a demographic dividend. That dividend, if used wisely, can accelerate human development and prepare for that time when inevitably societies will begin to age.

This *Asia-Pacific Human Development Report* breaks new ground in the way in which it links demography with human development. It explores how periods of demographic transition come with significant opportunities, but also risks. Countries which overlook both these do so at their peril, missing out on potentially large gains in human well-being and economic prosperity. The report emphasizes that policy makers need to understand the implications of a demographic transition, and be able to incorporate appropriate responses to it across all aspects of national development planning.

This report comes at an important juncture for UNDP. Our organisation recently celebrated its fiftieth birthday, and is looking to the future with confidence. The *Asia-Pacific Human Development Report*, with its wealth of insights and data, is one of our latest contributions to development thought leadership. I am confident that it will support policy and decision makers across the region in their work to advance human development progress.

**Helen Clark**

**Administrator**

United Nations Development Programme

## PREFACE

This *Asia-Pacific Human Development Report* comes at a time when the region and the world are at crossroads. Nowhere is this more evident than in the *2030 Agenda* with its *17 Sustainable Development Goals (SDGs)*, endorsed in late 2015 by the 193 members of the United Nations General Assembly. It offers a fundamental re-thinking of development as a process that must be universal and transformative, and leave no one behind.

The Agenda blurs the traditional lines between developing and developed countries, in keeping with the profound changes taking place in every region. It recognizes that no country has yet fully achieved sustainable development. It aims at systemic barriers, such as inequality, unsustainable consumption and production patterns, inadequate infrastructure and the lack of decent work.

These are big issues, and our solutions must be equally bold. We have to think long term and across core economic, social and environmental dimensions. Business as usual will no longer be good enough.

All countries need economies that generate enough decent work. All societies and political systems should be inclusive and cohesive. We all need healthy environments that sustain life for ourselves and our children. We need peace. Pursuing sustainable development within and across borders, recognizing our growing interconnectedness, will take everyone towards these goals.

Asia-Pacific is a region with remarkable development achievements, but it would be easy to

argue that this has been more of an ‘economic’ miracle than a ‘human development’ one. Too many people have been left behind or left on the margins. While only four out of 42 Asia-Pacific countries are still classified as low income, a disturbing 450 million extremely poor people live in what are technically middle-income countries.

So we have work to do. UNDP will be there, as it has been now for five decades, to make change happen. Everything we have accomplished and will accomplish unfolds through partnerships and close attention to the priorities of the countries where we work. We have a long legacy of helping develop institutional capacities, and we are already assisting the complex planning processes required to put the SDGs at the centre of national development.

This current *Asia-Pacific Human Development Report* offers the kind of thought leadership that will also be essential. It highlights how Asia-Pacific has favourable demographic patterns that provide a historic opportunity to accelerate human development and galvanize progress on the SDGs. Aimed at catalysing informed debate around solutions, it calls on leaders from across the region to be innovative in steering new directions that can put the region where it belongs: showing the ways to a better future.



**Mr. Haoliang Xu**  
UN Assistant Secretary-General  
and UNDP Regional Director  
Regional Bureau for Asia and the Pacific

## ACKNOWLEDGEMENTS

The *Asia-Pacific Human Development Report* is the flagship publication of UNDP's Regional Bureau for Asia and the Pacific. Its findings, analysis and policy recommendations are those of the Regional Bureau alone and cannot be attributed to UNDP or to its Executive Board. The UN General Assembly has officially recognized the Human Development Report as “an independent intellectual exercise” that has become “an important tool for raising awareness about human development around the world.”

This edition of the report, *Shaping the Future: How Changing Demographics Can Power Human Development*, drew on contributions from many people. The report was researched and written by UNDP staff, led by Thangavel Palanivel. Tasneem Mirza, a key member of the core team, provided active and sustained support throughout the process. Team members at different points in the process included Bishwa Tiwari, who led the preparation of Chapter 4; Scott Standley, who led the preparation of Chapter 5; and Abha Nigam, who offered programme and research assistance support.

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Rich and fruitful interactions took place with people in government, academia, the media, the private sector, civil society, think tanks and United Nations entities at two initial subregional consultations in Bangkok and Delhi. We would like to thank all participants for sharpening the concept note and outlines of the report. Extra appreciation goes to the resource people in the consultations from UNPFA, UNESCAP and several non-governmental organizations: Moneer Alam, Peter de Souza, S. Mahendra Dev, Nagesh Kumar, Christophe Lefranc, Pitamber Sharma, Srinivas Tata and Anders Thomsen. Rohini Kohli and Elena Borsatti provided essential support in organizing the meetings.

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### **Thangavel Palanivel**

**Lead Author, Senior Strategic Adviser and Chief Economist  
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# Acronyms

- ADB Asian Development Bank  
AIDS Acquired immune deficiency syndrome  
ASEAN+3 Association of Southeast Asian Nations plus China, Japan and Republic of Korea  
BFC Better Factories Cambodia  
DMRC Delhi Metro Rail Corporation  
EIU The Economist Intelligence Unit  
FAO Food and Agriculture Organization of the United Nations  
GDI Gender-related Development Index  
GDP Gross domestic product  
GII Gender Inequality Index  
HDI Human Development Index  
HIV Human immunodeficiency virus  
IDS Institute of Development Studies  
IHDI Inequality adjusted Human Development Index  
ILO International Labour Organization  
IMF International Money Fund  
IOM International Organization for Migration  
MDG Millennium Development Goal  
MPI Multidimensional Poverty Index  
NGO Non-Governmental Organization  
OECD Organisation for Economic Co-operation and Development  
PISA Programme for International Student Assessment  
PPP Purchasing power parity  
SAR Special Administrative Region  
SDG Sustainable Development Goal  
UN DESA United Nations Department of Economic and Social Affairs  
UN United Nations  
UNDP United Nations Development Programme  
UNESCAP United Nations Economic and Social Commission for Asia and the Pacific  
UNESCO United Nations Educational, Scientific and Cultural Organization  
UNESCO-UNEVOC International Centre for Technical Vocational Education and Training  
UNFPA United Nations Fund for Population Activities  
UN-HABITAT United Nations Human Settlements Programme  
UNICEF United Nations Children's Fund  
WHO World Health Organization  
WIEGO Women in Informal Employment: Globalizing and Organizing



# Overview

## SHAPING THE FUTURE: HOW CHANGING DEMOGRAPHICS CAN POWER HUMAN DEVELOPMENT

People are the real wealth of nations. The opportunities they have and the choices they make determine the course of human development—nowhere more so than in Asia-Pacific, home to half the world's population. Asia-Pacific's future, to a large extent, shapes the world's future.

This 'demographic destiny' is not one with fixed outcomes, however. Beyond the sheer size of its population, Asia-Pacific is in the midst of a historic demographic transition. All countries are at some stage along a continuum where the shares of younger, older and working-age people have begun to shift. The process builds on human development gains, but also stands to advance them. Making the most of it requires people to be healthy, educated and productive, enjoying well-being at any stage of life.

This **Asia-Pacific Human Development Report** considers the challenges and opportunities of demographic changes from a human development perspective. It explores how 'demographic opportunity' invariably occurs when there is a greater share of people who can work, save and pay taxes compared to lower shares of dependent young and older people. In economic terms alone, the region's so-called 'demographic dividend' is already significant, varying among subregions, but accounting for about 42 percent and 39 percent of economic growth in developed and developing Asia-Pacific countries, respectively, between 1970 and 2010. These gains have been accompanied in many cases by significant leaps forward in human development.

Fully capitalizing on demographic changes depends greatly on how proactive countries are in steering the process across many arenas—among them, labour markets, economic growth, savings and investment, education, health and nutrition, social protection,

migration, the provision of public services and the pace of urbanization. Countries that fail to plan ahead may fall short, as when inadequate investments in education shackle a growing economy since people are poorly equipped for the labour market. Squandering the demographic opportunity can result as well in losses to human development, as in the failure to invest new resources in pensions so older people can live in dignity.

Today, Asia-Pacific has countries with some of the youngest and oldest populations in the world. But the majority of nations have entered or are on the cusp of a period where working-age people comprise a significant population share. This puts the region as a whole at a favourable juncture to reap the demographic dividend and advance human development—although not for long. Demographic transition in Asia-Pacific not only involves large numbers of people, but also a pace of change more rapid than seen anywhere before, with particular consequences for societies that will be old long before they will be rich.

The implications are increasingly urgent in light of the recently agreed Agenda 2030, which maps an ambitious global vision for sustainable development that must be translated into action within each country. Countries will have to marshal all available resources, consider the most strategic mix of public investments, and explore all possible avenues—including those opened by demographic transition—to achieve the Agenda's 17 Sustainable Development Goals. These largely reflect the culmination of thinking that emerged in 1994 at the International Conference on Population and Development. It explicitly drew attention to the interplay between population and human development, and the potential for unleashing progress by upholding

human rights, developing people's capabilities and protecting dignity throughout the human lifetime.

This report is roughly organized around different stages of demographic transition: at the middle, with a large share of working-age people; at the onset, where societies are very young; and at the end, with an ageing population. Some countries in Asia-Pacific will need to consider all of these stages at the same time, because they bridge different periods of transition within their own populations. National paths forward will vary widely, but based on the findings of the report, some common priorities apply:

**All countries need to factor demographic changes into diverse public policy areas.** To leverage opportunities from demographic dynamics and accelerate human development, demographic considerations need to be integrated across core national development plans and strategies. They also should be factored into policies related to economic management, education, health, gender equality, youth, ageing and urbanization, among other issues. This would be consistent with Agenda 2030, where countries commit to take population dynamics into account in national development strategies and policies.

**Increased investments in human capabilities are essential.** These should be planned carefully against the stage of demographic transition—to help initiate it, to make the most of the dividend and to sustain human development momentum as societies age. Different priorities may be informed by principles of generational balance and fairness, and there should be a focus on enhancing education, health and other capabilities among those who are most vulnerable or marginalized, in line with Agenda 2030. The overarching aim should be to work, over time, towards the universality of services essential to human well-being.

**Decent and productive work is fundamental for greater well-being.** As the 2015 global Human Development Report argues, decent and productive work is a fundamental driver to enhance human development, and should be readily available to all. Despite 20 million new jobs every year in the last decade in Asia-Pacific, employment still falls short of the needs of burgeoning working-age

populations, both in numbers of jobs and their quality. Creating more work opportunities requires strategies such as setting employment targets, formulating an employment-led development plan, building a supportive macroeconomic framework, advancing regulations to protect workers' rights and safety, and fostering employment-intensive sectors. Targeted actions should reach out to excluded groups, towards realizing the promise of Agenda 2030 to leave no one behind.

**Without fully unleashing the power and potential of women, the demographic dividend will remain marginal at best.** The region's generally poor record on gender equality is a loss in terms of meeting internationally agreed human rights standards, and a serious impediment to making the most of the demographic transition and advancing human development. Gender equality should be understood as an immediate policy priority of central importance for women, and for societies and economies as a whole. Achieving the 4th Sustainable Development Goal on gender equality is a top priority—whether that involves political leadership, economic participation, education, public resource allocations, prevention of gender-based violence or any other area of life.

**Cooperating more as a region on demographic changes would recognize that many relevant issues transcend borders.** One priority might be easing imbalances in migration, since ageing societies may struggle to find workers, while those in the earliest stages of transition face a surplus. Another could be financial integration. Older populations have savings to invest, while younger ones need to attract capital given large labour pools and the need to boost productivity.

**More and better data is needed to gauge and manage demographic changes.** High-quality data needs to be geared towards monitoring the demographic profile overall, as well as the impacts of public policy measures aimed at youth, workers, older people and migrants, and related issues such as urbanization. More data and research are necessary on upcoming challenges due to changing epidemiological profiles and technology. This would be consistent with—and might build on—the data revolution called for as part of the Sustainable Development Goals.

## HUMAN DEVELOPMENT IN ASIA-PACIFIC: RAPID BUT UNEVEN GAINS

Human development—as reflected by achievements in income, education and health—is the source and the accelerant of demographic opportunity. In all world regions, human development has steadily improved. Globally, between 1990 and 2014, more than 2 billion people moved beyond low levels of human development, and more than a billion people escaped extreme poverty. Most live in Asia-Pacific.

Among developing regions in the last quarter century, South Asia has made the fastest human development progress, followed by East Asia and the Pacific. These subregions recorded an average annual growth rate in Human Development Index (HDI) scores of 1.4 percent and 1.3 percent, respectively, compared to 0.7 percent for the world as a whole. Despite such impressive progress, however, both subregions lag behind Latin America and the Caribbean, and Europe and Central Asia in terms of human development. South Asia is also behind the Arab States.

Among 36 Asia-Pacific countries and territories with available data, 18 rank high or very high on the HDI, 12 have medium scores and 6 countries have low ones. In recent decades, many of the least developed countries in Asia-Pacific—Afghanistan, Bangladesh, Cambodia, Lao People’s Democratic Republic, Myanmar and Nepal—have made the most rapid progress, albeit from a lower base.

Between 2009 and 2014, 20 Asia-Pacific countries witnessed an improvement in human development relative to other countries, while 9 saw a decline and 6 others witnessed no change. Despite significant progress, 19 Asia-Pacific countries are still below the global HDI average, underscoring that while the region may have achieved an ‘economic miracle’, it has not yet attained a ‘human development miracle’, which undercuts the full potential of its demographic transition.

## THE WORLD'S MOST POPULOUS REGION: A BIG TRANSITION IS UNDERWAY

Asia-Pacific's population size has tripled in the last 65 years, and is expected to reach 4.84 billion in 2050. Six of the world's 10 most populous countries are located in the region: China, India, Indonesia, Pakistan, Bangladesh and Japan—the first three alone account for 40 percent of all people alive today. The region also has some of the least populous countries in the world, such as Tokelau with 1,250 people and Niue with 1,610 people.

Asia-Pacific has been described as a ‘demographic explosion region’, although a once high population growth rate has significantly slowed. In the future, over three-fourths of the increase in regional population will likely occur in South Asia, while in East Asia, the population will probably remain largely unchanged or decline.

Accompanying falling population growth rates is an unprecedented demographic transition (Figure 1). Currently, 13 countries and territories, out of 38 with data on different age groups, are experiencing a ‘youth bulge’, where 20 percent or more of the population is between 15 and 24 years old. Another 11 countries and territories are ageing rapidly, where at least 14 percent of the population is 60 years and above. Others are witnessing an expanding share of working-age people.

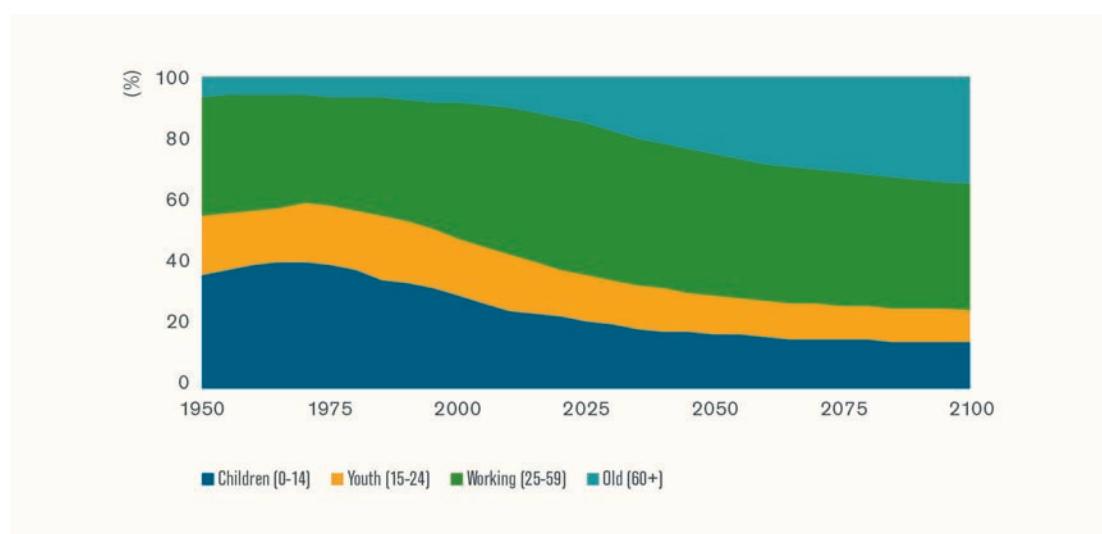
The largest shifts are likely still ahead, between 2015 and 2050. By 2050, for the region as a whole, the proportion of children under age 15 will be less than half of what it was in 1950, while the share of people aged 60 and over will be more than three times what it was then. The largest proportion of the population will be concentrated in the working-age years, although over time, this share will contract.

The speed and scale of these demographic changes have some unique features. For example, the pace of ageing in Asia-Pacific is much faster than in all other regions except Latin America and the Caribbean. In the West, the process spanned about a century; it is occurring in Asia-Pacific over a compressed three to four decades, and in some countries in less than 20

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While human development gains have been noteworthy, many countries still lag behind

**FIGURE 1:**  
Across the region, shares of younger people are declining, as populations age



Source: UN DESA 2015a.

## Demographic changes in Asia-Pacific are taking place much faster than they did elsewhere

years. The region now has the world's largest number of people over age 60, at around 489 million. By 2050, population ageing will be well underway in many countries that currently have young populations.

Another marked demographic shift involves urbanization. In the last 30 years, Asia-Pacific added more than a billion people to its cities—more than all other regions combined—and another billion will be added in the next 30 years. While the move to an urban majority took 210 years in Latin America and the Caribbean, and 150 years in Europe, countries such as China, Bhutan, Indonesia and Lao People's Democratic Republic will make the same transition in about 60 years, and Asia-Pacific as a whole in about 95 years.

Among Asia-Pacific countries, there is considerable variation in progress in the demographic transition. Countries are advanced in it if they have already reached their peak share of working-age people, and in the middle if the share is still rising but had surpassed at least half of its expected increase by 2015. Countries are on the cusp of transition if the share is not expected to peak until after 2060. Almost all of Asia-Pacific's high-income countries and some of its upper-middle-income countries have reached advanced stages, while some of its lower-middle-income and low-income countries

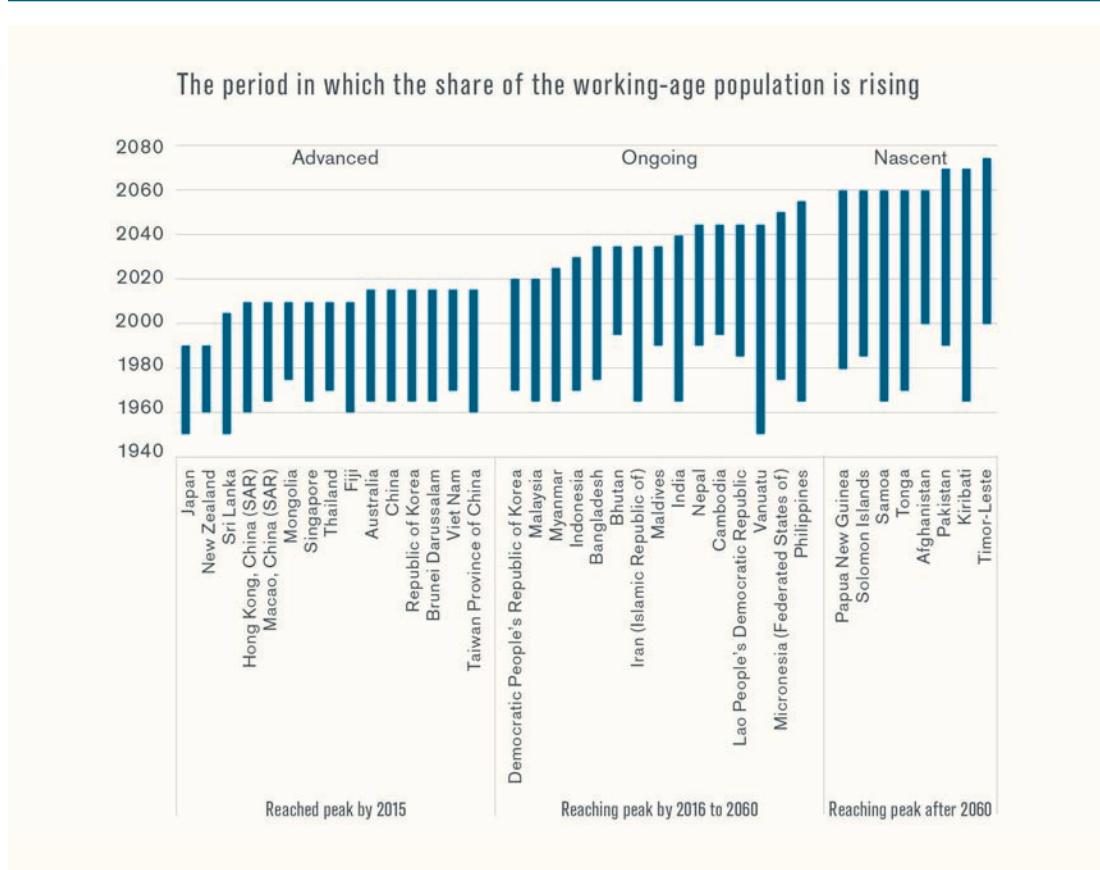
are in the initial stages (Figure 2).

Advanced demographic transition countries are mostly located in East Asia and South-east Asia. Many have witnessed, or will do so soon, a notable decline in both the working-age and total population, and will experience rapid ageing in coming decades. In South Asia, where transition is well underway, the proportions of young and working-age populations are growing rapidly, and almost all countries will have low or declining shares of young and old dependents over the next few decades. Most countries at the start of transition are small island developing states in the Pacific, where rapid population growth will, at least for some time ahead, stall the advent of transition.

## HOW DO DEMOGRAPHIC CHANGES ADVANCE HUMAN DEVELOPMENT?

Demographic changes and human development are interrelated and influence each other, but this report mainly analyses how demographic changes impact human development (Figure 3). This occurs through a number of channels, starting with an increased number of people

**FIGURE 2:**  
Wealthier countries tend to be more advanced in their demographic transitions



Source: UN DESA 2015a.

in the workforce. The second channel involves rising income and savings, and the third greater productivity. A fourth channel entails improved human capabilities, built through investing in education and health. A fifth is increasing domestic demand, as people earn and spend more, which can feed further economic growth. Urbanization comprises a sixth channel. As more and more people flock to urban areas, they can find better health and educational services, and diverse opportunities for decent work.

Demographic transition offers two potential dividends, which are roughly sequential. The first occurs when the labour force grows more rapidly than the dependent population. The equation is simple: more labour equals more economic output, assuming no significant drag from unemployment or underemployment. A second dividend unfolds when a larger number of workers is also more productive. This comes about in part through investments in human

capabilities that, for instance, allow people to do more skilled jobs. Over time, they can then earn more, save more and acquire more assets such as homes, land and businesses. Some overlap may occur between the two dividends, and neither is automatic, with demographic transition merely opening a window of opportunity.

While demographic transition is likely to occur in every country, accelerating its arrival and realizing the full scope of any potential dividend depend largely on policy choices to steer the process. If these choices are not made, or are made poorly, a historic opportunity for human development gains will be lost. In this regard, converting a demographic opportunity into a demographic dividend requires strategic policies and good governance. Patterns of public investment need to respond to demographic changes. Countries with a very youthful population need to invest more in schools, for example. Those with a large working-age population need

Converting demographic opportunity into a demographic dividend requires strategic policies, long-term vision and good governance

**FIGURE 3:**

**With appropriate policies and a conducive environment, demographic changes can improve human development by several channels**



to create large numbers of decent jobs. And those with an older population need to establish adequate pension systems.

clusive and aligned with human development, expand the scope for savings, and in general ensure people have capabilities, opportunities and freedoms to progress in their lives.

Core actions to make the most of the demographic opportunity may include:

#### CREATE MORE AND BETTER JOBS AND LIVELIHOODS

The share of people working but earning below the international poverty line is still large in Asia-Pacific, and their numbers are likely to escalate with more entrants into the labour force if current employment shortfalls continue. By 2050, more than 280 million more people will enter the job market in India alone, for instance, a one-third increase above current levels, yet between 1991 and 2013, the economy absorbed less than half of new entrants to the labour market.

Although unemployment rates across the region are fairly low, averaging 4 percent, underemployment is pervasive in many places. Large numbers of people still scrape by in marginal agriculture or informal and poorly paid work, even though the quality of employment is an essential element of the demographic dividend. While labour productivity has risen consistently, along with improved education and investments in technology, labour markets are still not robust enough, leaving many workers to migrate and seek jobs elsewhere, a drain on demographic returns.

The time has come to make job creation central to national development strategies, with

## IN THE MIDDLE OF TRANSITION: MAKING THE MOST OF DEMOGRAPHIC OPPORTUNITIES

Countries with a growing workforce can accelerate human development by creating more and better jobs

A number of Asia-Pacific countries are now at a point where the share of their working-age populations has grown dramatically, meaning just a few decades remain to reap a demographic dividend. This time frame largely coincides with the Sustainable Development Goals, suggesting that countries at this stage could be well-placed to achieve the goals, and that efforts to attain them could amplify the demographic dividend.

Acting soon to seize the demographic opportunity is an imperative, however. Both South Asia and South-east Asia will see a continued large jump in working-age populations from 2015 to 2030, after which the rise will begin to taper off. The increase will continue only in Oceania, at a marginally higher rate. In the region as a whole, the working-age population is expected to increase by 10 percent between 2015 and 2030, but by only 0.4 percent between 2030 and 2050.

As workforces expand, countries will need to provide enough decent work, stimulate and manage their economies so that growth is in-

a strong emphasis on protecting workers' rights. One starting point could be new policy measures to encourage small and medium enterprises, which face many constraints despite providing two-thirds of current jobs. Structural transformation of the economy, from less to more productive activities, opens new opportunities for people to find better work, and prepares for the time when a fewer number of workers will need to produce more to sustain development gains for an ageing population.

#### ACHIEVE WOMEN'S EQUAL PARTICIPATION

A factor limiting Asia-Pacific's ability to fully realize the demographic dividend as well as promote human development is low female labour force participation. The rate is below 60 percent for more than two-thirds of the 30 Asia-Pacific countries that track it. Many women are spending disproportionate time on domestic caregiving, undercutting opportunities to generate an income. East Asian countries that have already benefitted from demographic changes in the last three to four decades have done so in part due to high female labour force participation rates.

Policies designed to bring more women into the workforce will be critical for fully realizing demographic dividends. These need to ensure equal pay and rights for women, safety and security at work and in public spaces, reasonable parental leave, and reliable, cost-effective provision for child care, among others. Malaysia, for instance, is proactively engaging the private sector to bring more educated women back to the workforce by providing grants and incentives that can facilitate child care.

Women's entrepreneurship, an untapped area for many countries, has tremendous potential. Regulations regarding establishing businesses, obtaining credit, and participating in trade need to be oriented towards diminishing gender-related barriers and improving women's access. Women also need to be full participants in political and economic decision-making, as is their right, and because there is otherwise a lower likelihood that policies and plans will fully support their capabilities and contributions to development. Countries need to reform

discriminatory laws, such as those that require women to retire at earlier ages than men, and uproot social norms that tolerate gender-based violence, even if it is against the law.

#### CHANNEL MORE SAVINGS INTO PRODUCTIVE INVESTMENTS

About half of the demographic dividend already achieved in East Asia has come from savings and capital accumulation closely aligned with increases in the share of the working-age population. As more people work and have smaller families, and know that they may live longer in retirement, they tend to save more. Demographic transition can allow governments to save too, including through reduced spending on social services that are more important when populations are very young or very old. Accumulated savings can be applied in several ways that contribute to human development and the demographic dividend, such as infrastructure to improve productivity.

The region as a whole needs to widen the availability of financial instruments for investing in savings—the large portion currently ending up abroad underscores gaps in domestic options. One important avenue could be developing bond markets, which can have particular value for businesses as well as municipalities aiming to keep up with rapid urbanization and expansion of infrastructure and services. Banking and other basic financial services need to reach the large shares of people and smaller businesses who currently go without them, a process that could be backed by financial literacy and education efforts.

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Bringing more women into paid employment and entrepreneurship will increase the demographic dividend

# EARLY IN TRANSITION: UNLOCKING THE POTENTIAL OF THE NEXT GENERATION

One of the greatest challenges facing Asia-Pacific today is how to scale up and improve the quality of education, health and employment opportunities for its 1.7 billion people under age 25, as well as to empower them in decision-making. Children and young people in some sense are the starting point for demographic transition, since higher child survival rates lead to declines in fertility that lead, in turn, to a larger share of working-age people.

While policy makers sometimes see young people as a ‘problem’ group, they are the next generation of workers, scientists, innovators, entrepreneurs, visionaries and political leaders. In Agenda 2030, the international community committed to providing children and youth with a nurturing environment for the full realization of their rights and capabilities. With the right chances to make their way in life, they can catalyse enormous human development gains and propel the demographic dividend.

Core actions to unlock the potential of the next generation may include:

## INVEST IN BASIC CAPABILITIES: UNIVERSAL, HIGH-QUALITY EDUCATION AND HEALTH CARE

Health and education are human rights and pillars of human development, and countries in the region have made progress in both areas. Significant gaps remain in the coverage, scope and quality of services, however. Towards closing these, public investment in education should reach international standards; health care systems need to aim for universal coverage, as called for in Agenda 2030.

Areas that need more attention include closing disparities along the lines of gender, disability and location. Strong progress in primary education should be matched at the secondary and tertiary levels. Early childhood development programmes need to expand, since these dramatically improve children’s chances for success later in life. Countries need to further emphasize

quality, perhaps looking to successes in Hong Kong, China (Special Administrative Region); Japan; the Republic of Korea; Singapore and Taiwan Province of China, which top world rankings by the Organisation for Economic Co-operation and Development (OECD).

In health care, priorities include further reducing child and maternal mortality, cutting rates of malnutrition that are still high in some areas, and ensuring that adolescents and young adults can access the full range of sexual and reproductive health services. Countries such as Japan, Republic of Korea, Singapore and Thailand have achieved universal health coverage and admirable health-care outcomes, in some instances with limited financial resources. Several Pacific Island countries have also set excellent examples in providing state-sponsored systems. Out-of-pocket health-care costs in Kiribati, Samoa, Solomon Islands, and Tuvalu account for less than 10 percent of total health expenditures, allowing all citizens to access services.

## SMOOTH THE TRANSITION FROM SCHOOL TO WORK

Many young people in Asia-Pacific face a rocky transition to adulthood, marred by a frustrating search for employment that does not exist, or for which they have been poorly prepared. An astonishing one-third of youth—around 220 million people—are neither in school nor the labour market. Directionless, unable to start adult lives, they end up frustrated, their enormous energy and enthusiasm thwarted. Unmet youth expectations can weaken social cohesion and stability.

A smoother transition from school to employment depends on easing multiple barriers to starting work. Countries need to ensure that their educational systems prepare youth with skills demanded by the labour market. In many cases, technical education and vocational training need to be expanded and the quality improved, drawing on proven models, such as the one in Germany.

Opportunities for internships or apprenticeships for young people could be created, and employers incentivized to hire more youths. Career counselling centres designed for youth

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Investing in education  
and skills for youth  
is key to human  
development and  
the preparation of  
a productive future  
workforce

could provide job matching assistance, and training and mentoring, among other services. Improved access to finance, technical support related to business management, and legal advice could encourage young entrepreneurs to pursue innovations and start new ventures. The Republic of Korea offers an example of reducing barriers to market entry; its ‘Youth Initiatives’ scheme provides start-up funds and entrepreneurship training.

#### ENCOURAGE YOUTH PARTICIPATION

Youth involvement in democratic processes upholds their rights, and opens opportunities to more effectively steer development. Since many Asia-Pacific economies are growing fast, they need innovative and dynamic leaders, including youth. Young people can offer new insights and pioneering solutions in policy dialogues, or as representatives in national or local decision-making bodies. Many today are more informed than ever before, and keen to tap into new technologies to devise innovative solutions, such as through social media and crowdsourcing platforms. They participated pro-actively in deliberations around Agenda 2030, and are now poised to support its implementation.

Volunteerism and civic participation of youth can bring tremendous value to local communities. Civic education is another priority, as it instils common values, and a sense of social and civic rights and obligations. The Philippines’ well-known ‘Check My School’ programme mobilizes youth volunteers to monitor educational resources in local schools to ensure accountability and responsiveness to community needs. The programme has become so successful partly because of a trusted partnership between youth and local governments, and a strong emphasis on transparency and publicly available information.

## IN ADVANCED TRANSITION: SUSTAINING HUMAN DEVELOPMENT ACROSS LONGER LIFESPANS

In 2005, for the first time in its history, Asia-Pacific had more people over age 60 than children under age five. By 2050, 1.2 billion older people will call the region home, and half the population will be over age 50. The onset of rapid ageing is an early warning signal, an urgent call for action.

Managing ageing is a complex and dynamic process, with challenges and opportunities. Until now, Asia-Pacific governments have mainly focused on interventions for younger and working-age groups. Given the direction of demographics, however, continued progress on human development and sustaining the gains of demographic transition will largely depend on integrating ageing issues across national development planning, recognizing that ageing touches every area of life.

While ageing is often feared, with the right planning and preparation, it can be a source of enrichment for individuals and societies. In some countries, including Japan, New Zealand and Thailand, high-level political commitment, such as through dedicated ministerial posts and interministerial bodies on ageing, has ushered in positive ways to move forward.

Core actions to manage ageing to drive human development may include:

#### ADJUST NATIONAL PENSION SYSTEMS FOR EQUITY, ADEQUACY AND SUSTAINABILITY

Poverty rates are higher in many countries among older persons, a strong justification for pension schemes. With traditional family structures beginning to shift, a growing share of the elderly live alone and must rely on their own means. Pension coverage is rising, yet less than half of people in Asia-Pacific have access to pensions, and even those who do may find payments do not meet basic living expenses. In public pension expenditure, the region is below the global average, and given its large older

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With the right preparation, ageing can be a source of enrichment for individuals and societies

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## Early planning for old-age health care and pensions will smooth the transition to ageing

population, worse off than Africa.

Pension systems will need to grow—rapidly in many cases. This will not be easy or cheap. Choices may be needed to balance priorities across generations and develop social consensus around what constitutes fair shares of limited resources. There is a need to pay attention to proper design and appropriate institutional mechanisms to help contain expenditures, and supportive measures such as a higher retirement age can be considered.

In general, pension systems should aim to be progressive, where pension benefits are equitably shared, and those with the capacity to contribute more do so. A fair floor of essential benefits could be established for all pensioners, while avoiding the trap of setting overly generous benefit levels that are a disincentive to work. The region will need to focus on coverage, adequacy of benefits and sustainability. Increasing links between public and private pensions to ensure basic social security coverage, and facilitating long-term investment options for varying levels of income are emerging as models to consider in Australia, Chile and Denmark.

### IMPROVE HEALTH-CARE SYSTEMS FOR OLDER PERSONS

Rapid ageing is changing the profile of health-care needs, requiring corresponding shifts in health-care systems. The current rise in non-communicable diseases underscores the importance of preventive health care, including healthy eating and exercise habits that can minimize common old-age illnesses such as diabetes and heart disease. Stronger commitments are needed to support prevention, diagnosis, management and proper care of non-communicable diseases over the course of life.

Older people typically need more health care, but not all can afford it, particularly those from lower income households or who live independently. Health-care spending for older adults is about three to four times higher than that of the working-age population in many countries. Universal health care, which can make some of the most significant contributions to human development, should address these issues and be an aim in all countries. There should be an explicit focus on removing barriers to access

that may be specific to older persons.

Also needed is an expansion in long-term care facilities. As the proportion of older people living alone rises, they will require more of these, including in homes and communities. There is a growing demand for home-based nurses and care providers, but these are still largely missing for most countries in the region. Investments are needed in integrated, person-centred care tailored to individuals. Other priorities are to increase rehabilitative care, care for disabilities and mental health services geared to older persons. Health facilities, especially in rural areas, need to be more accessible to them.

### SUPPORT ACTIVE AGEING

Older people require interaction with friends, families and the wider community to remain healthy. As the region's population ages, and more seniors begin to live alone, elderly communities will increase, making accessibility even more important. A living and working environment friendly to older people facilitates their movement, reduces their risk of injury, enhances their ability to care for themselves and access services, and increases their participation in economic and social activities. Countries such as China, Indonesia, the Philippines and Viet Nam have introduced new programmes and policies to promote employment opportunities for older people.

Priority measures include, among others, dwellings that can accommodate those with limited mobility and strength; a wider range of home care services for the elderly; transportation that is elderly-friendly, affordable and accessible; walkways that are in good repair and free of obstacles; traffic signals that allow sufficient time for older persons to cross streets safely; places to rest outdoors; and public buildings accessible to those with limited mobility. Other avenues for active ageing come from opportunities to participate in voluntary activities and community service, and to engage in making public policy choices. Some countries, such as China and Malaysia, have reserved seats in consultative bodies to provide important roles to older adults in decision-making.

Every older adult should enjoy the right to choose to remain employed, yet older people in

Asia-Pacific leave the workforce at rates that are higher than ideal, including in comparison to other developing regions. Institutional, legal, social and technical barriers need to be tackled—such as to make work environments more inclusive by accommodating the physical and health conditions of older people. Businesses might be encouraged to retain older workers through flexible employment conditions. Occupational retraining programmes and general educational upgrading can allow older men and women to take up new occupations and cope with technological change.

#### CHANGE NEGATIVE PERCEPTIONS AROUND AGEING

Older men and women have the same rights as everyone else. Yet negative attitudes towards old age and older people are deeply ingrained in many societies. Unlike other forms of prejudice and discriminatory behaviour, these are rarely acknowledged or challenged. They reduce many significant contributions older people make to society by working, voting, paying taxes, volunteering and playing vital roles in families, such as through caring for children.

Public awareness campaigns can be invaluable in countering discriminatory notions about older people. Anti-discrimination legislation should explicitly protect them from abuse and deprivation, and recognize potential intersections with other forms of discrimination related to gender, ethnic origin, disability, income, sexuality, HIV status or literacy levels. Asia-Pacific countries could look to European Union programmes and policies aimed at safeguarding the interests and rights of ageing populations, including the EU Framework Directive, which legally prohibits age-based discrimination in employment.

## REALIZING THE FULL PROMISE OF URBANIZATION

Rapid urbanization is transforming Asia-Pacific. Lured by the promise of better jobs and higher incomes, as well as quality education and health care, people across the region are on the move from the countryside to new lives in cities. In Asia-Pacific, 47 percent of people live in urban areas; their share will swell to an estimated 62 percent by 2050.<sup>1</sup>

Throughout history, as centres of learning, culture, art, innovation and productivity, cities have accelerated human development. Urbanization also helps trigger demographic transition. In the midst of explosive growth, however, the pressure is on to provide enough decent jobs, affordable housing and quality services.

The international community has consistently recognized the centrality of cities in development. For example, the 2012 Rio+20 Summit outcome states that "...if they are well planned and developed, including through integrated planning and management approaches, cities can promote economically, socially and environmentally sustainable societies."<sup>2</sup> Agenda 2030 also emphasizes building sustainable cities and communities through its 11th Sustainable Development Goal.

Core actions to realize the full promise of urbanization may include:

#### MANAGE CITIES MORE EFFECTIVELY

Many Asia-Pacific cities lack the necessary institutions, policies and resources to keep up with growing populations. In governance, they are among the weakest in the world. If urbanization is not well managed and soon, the region will likely not sustain the momentum of economic growth or human development, and will lose some of its demographic dividend.

One urgent priority is to review intergovernmental relationships between local and central authorities, and move towards a proactive, bottom-up approach that goes beyond just designing a new territorial administrative structure. Success will depend strongly on a national legal foundation, capable institutions, and adequate financial instruments to manage

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Well-developed cities can be the backbone of sustainable societies

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## Strategies to make cities more inclusive and competitive can multiply the demographic dividend

decentralization and coordinate among different levels of government. Local institutions will need requisite technical and managerial skills, the ability to engage with the public, and strong capacities to design, implement, monitor and evaluate local public policies.

Each city, regardless of size, needs a well-defined administrative area over which it has full autonomy, and a clear formula for intergovernmental transfers. As capacity for local administration improves, cities can often boost local resource mobilization, including through taxation, and plan more systematically for infrastructure investment, operations and maintenance. Cities at a more advanced stage of development can explore alternative instruments of finance, such as user fees, municipal bonds and public-private partnerships. The city of Ahmedabad in India pursued reforms related to local resource mobilization that enabled it to raise significant funds and transform its credit rating to AA.

### MAKE CITIES MORE COMPETITIVE AND INCLUSIVE

Competitive cities attract new industries, investments and skilled workers to spur dynamic economic growth. Competitiveness is determined by factors such as infrastructure, educational and research institutions, and the quality of public administration. Much depends on the ability to nurture a capable workforce, and absorb its talents through the generation of decent work.

A few Asia-Pacific cities such as Hong Kong, China (SAR) and Singapore have been hugely successful in attracting talent and investment, and ensuring prosperity and good public services for their citizens. Many more are struggling to cope with challenges such as the large-scale influx of migrants. Much needs to be done to tackle crippling infrastructure gaps, such as unreliable power systems, poor quality roads, inefficient ports and inadequate schools. Local economic development and job creation efforts should be at the heart of dialogue with the local business community, and local finance and educational institutions.

Strong and vibrant cities are broadly inclusive, since exclusion, social or otherwise, is a critical impediment to human development.

Infrastructure, services and decent employment opportunities need to reach all city residents; special measures may be needed for migrants, youth, older people, women and girls, and people with disabilities. Singapore offers an example of how this can happen. Ranked today as Asia's greenest city, and as having the best business environment and being the best place to live, Singapore was once a city with polluted rivers and massive infrastructure and housing shortages.

Bridging the still often wide gap in many Asia-Pacific cities between citizens and governments requires strengthening accountability, and increasing government transparency and openness. Citizen participation is important in building consensus and making local services most relevant to local needs.

### PURSUE MORE CONCENTRATED PATTERNS OF URBAN GROWTH, SUCH AS COMPACT CITIES

In driving economic activity and human development gains, cities consume vast quantities of energy, water and other resources, and generate more waste than rural areas. More than half of the world's most polluted cities are in Asia-Pacific. Increasingly, the costs of environmental degradation will be excessive and difficult to reverse, ever more so given the pace of urbanization. It will be far more cost-effective, and in line with commitments under Agenda 2030, to begin working now towards more sustainable cities.

One essential measure is to foster urban agglomeration, and promote green and compact cities. These avoid the urban sprawl that can make public services more expensive and difficult to provide. They can dramatically decrease traffic congestion and greenhouse gas emissions. Restrictions on the expansion of urban boundaries are one way to encourage denser urban development. Countries such as China, India, Japan and the Republic of Korea have begun pursuing compact and smart cities, including to reduce per capita carbon emissions. In Seoul, for example, the metropolitan government plans to expand the renewable energy share from 1.5 percent in 2007 to 20 percent by 2030, with nearly half to come from hydro energy.

# WHAT'S AHEAD IN THIS REPORT

This *Asia-Pacific Human Development Report* considers demographic changes in the region today and in the near future, and assesses different approaches to managing transition in order to accelerate human development. The report also probes the issues of rapid urbanization and migration, both of which result from and influence demographic transition.

Chapter 1 introduces key concepts of the demographic transition and dividend, and provides an overview of major human development and demographic changes in Asia-Pacific. Chapter 2 considers ways to maximize the dividend in countries with a large share of working-age people, with an emphasis on decent and productive employment and the effective investment of savings. Chapter 3 assesses investments that need to be made in the early stage of transition, particularly in children and youth so they are

healthy, well-educated and can move readily into adult life. Chapter 4 takes up the issue of ageing, examining its challenges, but also exploring the many contributions of older people to societies and economies. In Chapter 5, urbanization is analysed as a phenomenon that can trigger and accelerate demographic transition and an associated dividend that can improve human development, if it is managed well. Chapter 6 highlights core policy options presented in the previous chapters.

People are the real wealth of nations—and their well-being is the core purpose of this report. Much of Asia-Pacific has reached a point in history where a few short decades remain to reap a demographic dividend. It is unlikely that such an opportunity will come again. A demographic transition rooted in making advances in human capabilities, opportunities and freedoms that are inclusive and open to all will result in a tremendous leap forward. It will pay a high dividend in human development, now and for many generations to come.



# Chapter 1

HOW CHANGING DEMOGRAPHICS  
CAN POWER HUMAN DEVELOPMENT



# 1. HOW CHANGING DEMOGRAPHICS CAN POWER HUMAN DEVELOPMENT

Across Asia-Pacific, people's choices and opportunities define the region's population dynamics and prospects for human development. Understanding of how this process unfolds, however, has shifted dramatically since the early pronouncements of 18th century British economist Thomas Malthus, who warned that population increases would outstrip food production, leading to mass hunger, poverty and the spread of disease. This dire perspective informed attempts to control population growth for a number of decades, globally and within individual Asia-Pacific countries as the number of people spiraled upward at rates never known before.

By the time of the landmark 1994 International Conference on Population and Development, new perspectives and possibilities had emerged. Turning from the notion that too many people simply posed a threat, the conference considered "population, poverty, patterns of production and consumption and the environment [as] so closely interconnected that none of them can be considered in isolation."<sup>1</sup> In other words, population size matters, but so does human behaviour, which inherently links to the capabilities people have and their level of well-being. The conference ushered in agreement on upholding reproductive health and rights so that people can make empowered choices about their families.

In recent years, there has been growing emphasis on the age composition of populations, and the relative shares of those who are young, old and in their most productive middle years. It has become increasingly clear that every country in the world, regardless of its population size, has experienced or will experience a 'demographic transition'. This begins with a fall in child mortality rates and ends with an ageing population. In between, countries go through a period of demographic opportunity,

where they have a greater share of working-age people and relatively lower shares of dependent young and older people.

Demographic transition has profound implications for human development, where all people are able to acquire the capabilities and opportunities they need to achieve a decent life. Human development, in turn, determines the course of the transition. Each age group acts differently, with varying levels of dependency and productivity, and requirements for diverse goods and services. Young populations must have good schools, for example, while older ones need pensions. Middle-aged populations send a high percentage of people into the workforce, potentially powering up economic growth.

Challenges and opportunities arise during the course of transition. Some 'demographic dividend'<sup>2</sup> invariably occurs when there are fewer young and old dependents, and more people in the workforce. But fully capitalizing on this depends largely on how proactive countries are in steering the process. Those that fail to plan ahead may realize only some potential benefits. If human development does not substantially move forward, for instance, some part of the dividend may be lost, as when people are inadequately educated for the labour market. Squandering the dividend can result as well in losses to human development, as in the failure to provide enough opportunities for decent work.

From the perspective of human development, the quality and inclusivity of the economic growth generated by demographics shifts is critical. Demographic transition, to truly bear a dividend, must build on and contribute to greater human capabilities and opportunities for well-being, and uphold human rights and dignity. Further, development must be

sustainable, reaching everyone while ensuring that natural resources are not exhausted and planetary boundaries surpassed.

The implications are increasingly urgent in light of the recently agreed Agenda 2030, which maps an ambitious global vision for sustainable development that must be translated into action in each country (Box 1.1). Countries will need to marshal all available resources, consider the most strategic mix of public investments, and explore all possible avenues—including those opened by demographic changes—to achieve the Sustainable Development Goals (SDGs).

Most past work on demographic changes has addressed specific issues such as youth or ageing, working populations or urbanization. Less attention has been paid to taking an integrated approach and capturing the interplay between demography and human development. Even the United Nations, which for decades has led the world in chronicling demographic changes and championing accelerated human development, has not sufficiently advocated the importance of making connections between the two.

But today, Asia-Pacific countries cannot afford to overlook the links. The age structures of their populations are rapidly shifting, and they are on the cusp of a transition with potentially profound impacts on labour markets, economic growth, savings and investment, education, health, social protection and the provision of public services—all with implications for human development.

This **Asia-Pacific Human Development Report** takes up these issues. It considers the major demographic changes in the region today and in the near future, and major channels that link these to human development. It assesses whether or not countries have adequate and appropriate mechanisms to manage different elements of demographic changes, such as to absorb potentially huge gains from a large working-age population, or to strengthen old-age support systems for growing numbers of elderly people. It probes the issues of historically rapid urbanization and migration, both of which result from and also influence demographic changes.

# HUMAN DEVELOPMENT IMPROVES RAPIDLY, BUT UNEVENLY, ACROSS ASIA-PACIFIC

Human Development Index (HDI) values—which reflect achievements in income, education and health—have steadily risen in all regions in the world. Globally, between 1990 and 2014, more than 2 billion people rose above low levels of human development; more than a billion escaped extreme poverty.<sup>3</sup> Most live in Asia-Pacific, although the current state of human development in the region as a whole presents a mixed picture.

Among developing regions worldwide, South Asia has made the fastest human development

progress with an average annual growth rate in HDI values of 1.4 percent compared to the world average of 0.7 percent in the last 25 years. It is followed by East Asia and the Pacific with a rate of 1.3 percent.<sup>4</sup> Despite such impressive progress, however, both subregions still lag behind Latin America and the Caribbean, and Europe and Central Asia. South Asia is also behind the Arab States (Figure 1.1).

Among 36 Asia-Pacific countries and territories with available data,<sup>5</sup> 18 have high or very high HDI values, 12 countries have medium values, and 6 countries have low values.<sup>6</sup> In recent decades, many least developed countries in Asia-Pacific—Afghanistan, Bangladesh, Cambodia, Lao People's Democratic Republic, Myanmar and Nepal—have made the most rapid progress on human development, albeit from a lower base. Between 2009 and 2014, 20 Asia-Pacific countries witnessed an improvement

## BOX 1.1: Major global agreements link population and development

In 1994, the International Conference on Population and Development, held in Cairo, explicitly drew attention—for the first time—to the dynamic relationship between population and development. Its Programme of Action advocated “appropriate policies to meet the needs of current generations without compromising the ability of future generations to meet their own needs” (UNFPA 2014b, paragraph 3.1). It called for investing in individual human rights, capabilities and dignity throughout the human lifetime.

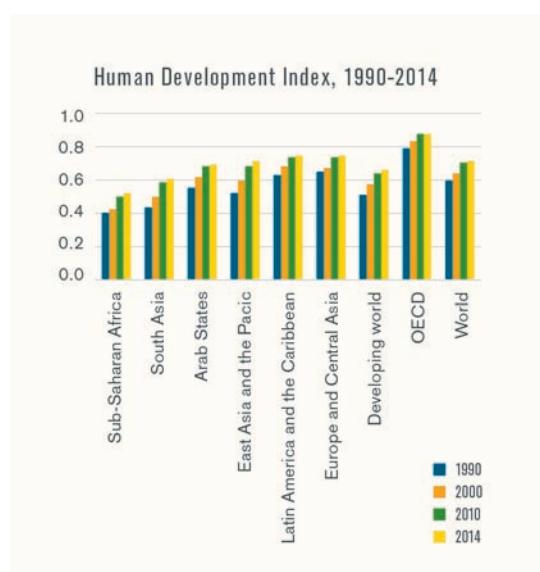
More recently, at the 2012 United Nations Conference on Sustainable Development, governments globally committed to “seize the opportunities and address the challenges associated with demographic change” (United Nations 2012c, paragraph 144). In 2014, at the 20-year review of the Cairo conference, they overwhelmingly supported an action plan “safeguarding the rights of young people and investing in their quality education, decent employment opportunities, effective livelihood skills and access to sexual and reproductive health” (UNFPA 2014c, executive summary).

The international community in 2015 affirmed, in Agenda 2030, a set of Sustainable Development Goals and targets that incorporate population elements. The SDGs come at a time when Asia-Pacific countries are experiencing powerful population shifts, including continued population growth, youth bulges, ageing and significant changes associated with migration, urbanization and family dynamics. These issues have many implications for the achievement of the SDGs by their agreed 2030 endpoint. Demographic patterns affect almost all of the priorities in the goals, including economic growth, labour markets, income distribution, poverty, social protection, pensions, health, education, gender equality, food security, energy, environmental protection, and climate change mitigation and adaptation.

Demographic changes played an important role in the success of East Asia's ‘tiger’ economies. Other Asia-Pacific countries now have a similar historic opportunity to leverage demographics for human development, and to guide development to exert positive impacts on demographics. By anticipating and planning for the changes ahead, all countries can address challenges and harness opportunities to realize greater human well-being and contribute to a more sustainable world.

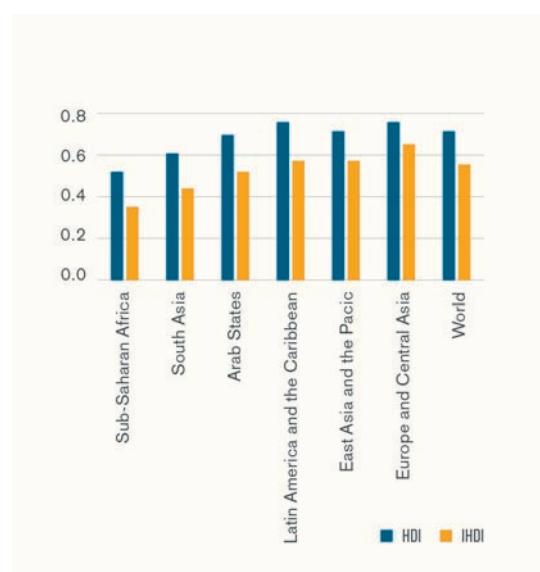
**South Asia has made the fastest recent human development progress, but lags behind many regions of the world**

**FIGURE 1.1:**  
**The Human Development Index marks improvement in all regions**



Source: Based on UNDP 2015a.

**FIGURE 1.2:**  
**Inequality deducts from human development achievements in all regions**



Source: Based on UNDP 2015a.

## Losses from inequality are greatest for income in East Asia and the Pacific, and highest for education and longevity in South Asia

in their human development ranking relative to other countries, while 9 saw a decline and 6 witnessed no change.<sup>7</sup> Despite significant progress in recent decades, 19 Asia-Pacific countries are still below the global average on the HDI,<sup>8</sup> underscoring that while the region may have achieved an ‘economic miracle’, it has not yet attained a ‘human development miracle’.

### INEQUALITY RESULTS IN HUMAN DEVELOPMENT LOSSES

Inequality in the distribution of the three dimensions of the HDI is striking in Asia-Pacific, as captured in the Inequality-adjusted Human Development Index (IHDI). The average human development loss due to inequality for the world is 22.8 percent, but it is 28.7 percent for South Asia. Though human development loss due to inequality is somewhat low at 19.4 percent for East Asia and the Pacific, it is still high compared to 13 percent in Europe and central Asia (Figure 1.2).

While losses due to inequality are greatest in terms of income in East Asia and the Pacific, they are highest for education and longevity in South Asia. Among 24 Asia-Pacific countries where the IHDI was calculated in 2014,<sup>9</sup> the

Islamic Republic of Iran had the most severe shortfalls—33.6 percent of its HDI value was lost due to inequality, followed by Kiribati at 31.5 percent, Afghanistan at 31.4 percent, Timor-Leste at 30.7 percent, Pakistan at 29.9 percent, Bhutan at 29.8 percent, Bangladesh at 29.4 percent and India at 28.6 percent.<sup>10</sup> Inequality in access to health, education and basic services affirms that inclusiveness remains a challenge in the region despite noteworthy progress in poverty reduction.

### GENDER GAPS ARE WIDE IN SOME COUNTRIES

In parts of Asia-Pacific, gender gaps remain wide—imposing large limitations on prospects for demographic dividends, since women’s participation in the labour force and ability to make choices related to education and fertility can make a substantial contribution. The Gender Development Index (GDI), which captures gender inequalities in human development, reveals a gap in South Asia that is larger than that of any other region.

Among 29 Asia-Pacific countries and areas,<sup>11</sup> the gender gap is highest in Afghanistan and lowest in Thailand. Globally, of the 148

countries with data to calculate the 2014 GDI, a reverse gender gap favouring women occurred in 14 countries, including Mongolia. Female life expectancy is greater than that of males in all Asia-Pacific countries, but women seem to have a large advantage mainly in countries with the lowest overall gender gap. For example, women are expected to live 6.8 years and 6.9 years more than men in Thailand and the Philippines, respectively, the two countries with the lowest levels of gender inequality. In Mongolia, the only country with a reverse gender gap, the ‘female advantage’ is the largest at 8.6 years. Women in Afghanistan, where gender inequality is highest, live only 2.4 years longer than men.<sup>12</sup>

The Gender Inequality Index (GII) reveals the extent to which national achievements in reproductive health, empowerment and labour market participation are eroded by gender inequalities, and is more suggestive of cultural values that may underlie gender discrimination than the GDI. In 2014, South Asia scored 19.3 percent higher than the global average, indicating widespread discrimination, while East Asia and the Pacific were 26.9 percent lower.<sup>13</sup> The GII

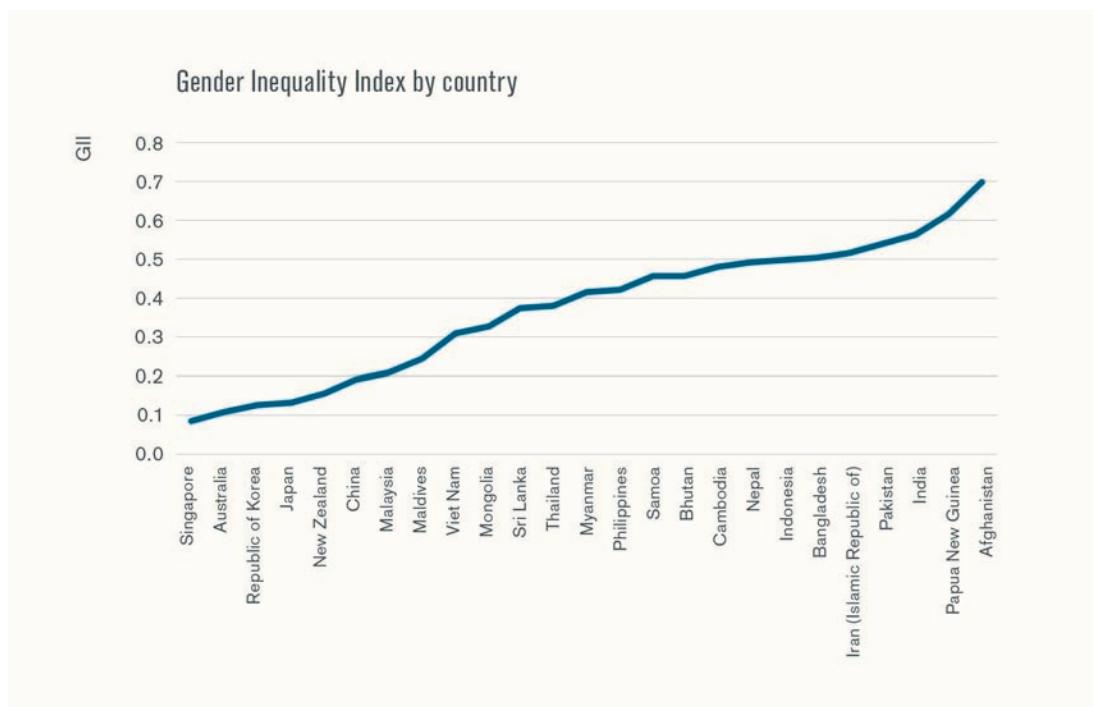
was lowest in Singapore and highest in Afghanistan (Figure 1.3), and in general was higher in poorer than richer countries. Asia-Pacific countries with pronounced gender inequality also have high maternal mortality ratios, a lower proportion of women with secondary school education and fewer women in parliament.

### PEOPLE FACE MULTIFACETED DEPRIVATIONS

Globally, some 1.5 billion people live in what is considered multidimensional poverty,<sup>14</sup> where they struggle with overlapping deprivations, such as in health, education, living standards and so on. Based on the Multidimensional Poverty Index (MPI), the largest shares live in South Asia, sub-Saharan Africa, and East Asia and the Pacific (Table 1.1). Deprivations in living standards generally contribute more to multidimensional poverty than those in education and health. The contribution of the former is much higher in East Asia and the Pacific than in South Asia, perhaps due to economies where people are more heavily dependent on earning incomes

Gender inequalities limit the demographic dividend

**FIGURE 1.3:**  
Gender-based discrimination is particularly acute in South Asia



**TABLE 1.1:**  
**Asia-Pacific still has large portions of people living in multidimensional poverty**

Region	Income poverty headcounts (%)	Near income poverty (%)	Poverty headcount (%)	Intensity of deprivation (%)	Near multidimensional poverty (%)
Arab States	6.5	36.4	15.5	48.4	8.7
East Asia and the Pacific	12.7	25.1	6.4	44.7	16.2
Europe and Central Asia	1.4	6	1.8	37.3	4.5
Latin America and the Caribbean	5.7	7	6.7	42.8	9.5
South Asia	30.6	44.4	53.4	50.8	17.9
Sub-Saharan Africa	50.9	27.8	59.6	55	16.2

Note: the population near multidimensional poverty corresponds to the percentage of the population at risk of suffering multiple deprivations—that is, those with a deprivation score of 20 percent to 33 percent.

Source: UNDP 2014.

to provide for their needs. In South Asia, over half of people in Afghanistan, Bangladesh and India lived in multidimensional poverty in 2010, compared to only 2 percent in the Maldives.<sup>15</sup> In East Asia and the Pacific, multidimensional poverty is most severe in Timor-Leste, affecting over 64 percent of the population, and lowest in Thailand, at only 1 percent.

## THE WORLD'S MOST POPULOUS REGION: A MAJOR TRANSITION IS UNDERWAY

Home to 4.1 billion people in 2015, living at widely diverse stages of human development, Asia-Pacific is the most populous region in the world.<sup>16</sup> Around 56 percent of the world's people live there, although the region occupies only about 23 percent of the earth's land.<sup>17</sup> Population size has tripled in the last 65 years, and is expected to reach 4.84 billion in 2050.<sup>18</sup> Six of the world's 10 most populous countries are located in the region—China, India, Indonesia, Pakistan, Bangladesh and Japan—the first three alone account for 40 percent of all people alive today.<sup>19</sup> The region also has some of the least populous countries, such as Tokelau with 1,250

people, Niue with 1,610 people and Tuvalu with 9,916 people.

Asia-Pacific has been described as a ‘demographic explosion region’, although a high population growth rate of about 3.2 percent in the second half of the 20th century has significantly slowed since 2000 (Box 1.2). Today, the rate hovers at about 1 percent, lower than the global average of 1.2 percent, and is expected to fall to 0.46 percent in the next four decades.

Already, the slowdown is evident in almost all subregions, with variations. Annual population growth in East Asia is expected to shrink to -0.4 percent from 2015 to 2050, while rates in South-east and South Asia will likely descend to around 0.3 percent. Growth is currently highest in the Pacific subregion, but is also slowing, probably reaching 0.9 percent during the same period.

In the future, over three-fourths of the increase in Asia-Pacific's population will likely occur in South Asia, where total population will rise by 600 million by 2050. In East Asia, meanwhile, the population will probably remain largely unchanged or decline, shifting its regional share from 48 percent in 1970 to only 34 percent by 2050. By then, almost half of the region's people will reside in South Asia.

To a large extent, China and India, now home to 2.6 billion people, will drive demographic changes in the region and influence their consequences. India's population will likely

## **BOX 1.2:** **A legacy of population policies**

Countries in Asia-Pacific have taken different approaches to population policy, with results, perspectives and choices evolving over time.

### **CHINA: RETHINKING THE ONE-CHILD POLICY**

In 1978, viewing population control as a means to economic development, China initiated a voluntary programme to encourage families to have no more than two children. In 1979, a more stringent one-child policy began. Incentives to adhere included better job opportunities, and improved access to health care and education, while those who did not comply were penalized financially, socially, and in some extreme cases illegally through forced abortions and sterilizations. The policy led to a tremendous slowing of population growth.

Along with other socioeconomic reforms, this has contributed to economic growth and poverty reduction in the last three decades. Some undesirable consequences, however, include a skewed sex ratio as families chose to have male children. China is now facing a rapidly ageing population and a shrinking labour force. In 2013, it began amending the policy to promote long-term, balanced development of its population as well as to deal with ageing. In 2015, China decided that families throughout the country could have up to two children. Despite the relaxation of the rules, however, many may still opt to only have one child, for reasons including the greater number of women working outside the home and the expense of raising children.

### **INDIA: A SHIFT TOWARDS PROMOTING REPRODUCTIVE HEALTH**

In 1952, India became the first country in the developing world to initiate a state-sponsored family planning programme. It began establishing clinics to offer contraceptives that by 1961 numbered 4,000 across the country. By 1963, this programme was replaced with an 'extended' family planning campaign with time-bound targets. When this did not significantly slow population growth, India attempted a coercive approach with incentives to undergo sterilization during the 1975-1977 emergency regime. Public outcry led to the abandonment of this effort.

Since 1977, expanded public health facilities have supported low-income households with contraception and family planning. Despite criticism about mass sterilizations in unhygienic, makeshift hospitals, voluntary sterilization has become prevalent among low-income groups. Contraceptive usage has more than quadrupled, from 13 percent of married women in 1970 to 55 percent in 2008.

The fertility rate has declined from 5.7 children per woman in 1966 to 2.5 in 2013. Currently, the family planning programme is being repositioned to not only stabilize the population, but also to promote reproductive health, and reduce maternal, infant and child mortality and morbidity.

### **INDONESIA: SUCCESSFUL COLLABORATION MAKES CONTRACEPTIVES EASILY ACCESSIBLE**

Indonesia doubled its contraceptive prevalence rate from 26 percent in 1976 to 62 percent in 2012, and halved its fertility rate from 5.6 to 2.5 children per woman. With the backing of religious groups and manufacturing establishments, among other actors, the Indonesian family planning programme has been one of the most effective collaborations between government and civil society in Asia.

The Government has emphasized making contraception easily accessible to people across the country, initially through expanded health-care services. Community outreach has engaged local workers and village institutions to bring information and contraception to the doorsteps of rural residents, helping them learn about and make choices for family planning. Regular village meetings have also raised understanding and acceptance, and made contraceptives freely available. Changes in attitudes have meant that changes in practices took root. While Indonesia privatized hospitals in 1987, the withdrawal of public resources did not have a major impact on steadily declining fertility.

### **THAILAND: THE FASTEST FALL IN FERTILITY**

Through Thailand's National Family Planning Programme, the contraceptive prevalence rate increased by more than five times, from 14.4 percent in 1970 to 79.2 percent in 2012. The total fertility rate fell from 6.3 children per woman in 1967 to 1.5 in 2013. Concerted family planning advocacy began in 1971, including to increase awareness of the link between small families and economic well-being. Slogans stressed "the more children, the poorer." The Government worked with the Population and Community Development Association, Thailand's largest non-governmental organization, on creative and engaging ways to encourage families to have fewer children, as well as to make contraception widely available.

Thailand's fertility rate today has dipped to 0.8, falling faster than anywhere else in Asia-Pacific. Government policy has now shifted to preventing a further drop. The 11th national development plan aims to keep rates above 1.6 by encouraging

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**Population policies and perspectives in Asia-Pacific are evolving over time**

Age structures in countries have changed significantly, but in different ways: one-third of countries are young and one-fourth are ageing

married couples to have children, and providing tax and other incentives for child development and well-being.

### BANGLADESH AND PAKISTAN: CONTRASTING EXPERIENCES

Although Bangladesh and Pakistan had a common population policy and family planning programme until 1971, they began to follow different paths after splitting into two nations. Since then, in Bangladesh, contraceptive prevalence has risen dramatically and fertility fallen steadily. In Pakistan,

contraceptive availability has increased, but remains at low levels; fertility has declined somewhat, but is still high.

One crucial difference between the two countries is the level of political commitment and involvement of civil society. Both have been greater in Bangladesh. Hundreds of non-governmental organizations, for example, have participated in family planning activities in conjunction with programmes aimed at empowering women through education, employment and income generation.

Source: The Economist 2015, BBC 2014, World Bank 2007, Sen 1994, Bose 1995, Sanhya 2003, Rao 2004, World Bank 2015a, and Prusty 2014. Schoemaker 2005. World Bank 2007. Barnwal 2004. World Bank 2015c. WHO 2003. World Bank 2007.

surpass China's by 2022, possibly earlier.

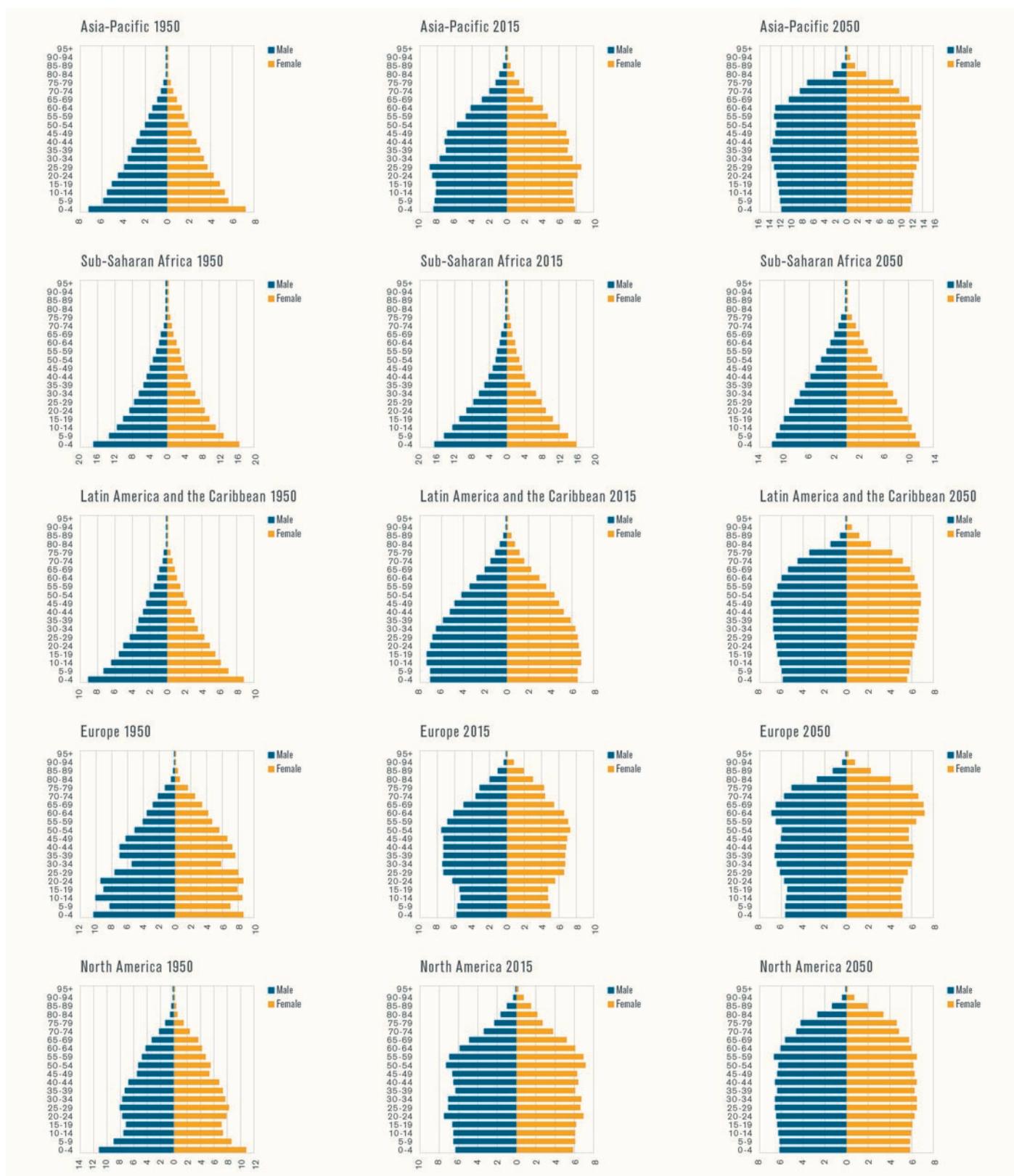
Accompanying declining population growth rates is Asia-Pacific's unprecedented demographic change. Age structures have changed significantly, but in different ways. Out of 38 countries and territories with age composition data, 13 are currently experiencing a 'youth bulge', or a rise in the proportion of people aged 15 to 24. Others are witnessing a burgeoning portion of the working-age population, when the 'window of demographic opportunity' opens wide.<sup>20</sup> Another 11 countries and territories are ageing, where at least 14 percent of the population is 60 years and above.

A tool to track what is happening in terms of age composition is the 'population pyramid' (Figure 1.4). It shows that despite significant changes in Asia-Pacific's population since 1950, the largest shifts are likely still ahead, between 2015 and 2050. In 1950, a very wide base narrowing to a pointed tip indicated a youthful population. By 2015, the percentages of working-age and elderly people had risen—the largest group regionally was aged 25 to 29. By 2050, the proportion of children under age 15 will be less than half of what it was in 1950, while the share of people aged 60 and over will be more than three times what it was then.<sup>21</sup> The largest proportion of the population will be concentrated in the working-age middle of the pyramid, especially in two age groups: 30 to 44 and 55 to 64. Over time, this share will contract, even as the number of working-age people will increase slightly.

Age structure varies considerably for other regions. Sub-Saharan Africa still has a very young population, and while it will shift towards transition, it will overall remain youthful by 2050. Most of Europe's population is concentrated in the 30 to 60 age group; by 2050, it will have a large old-age bulge. North America retains a relatively young population, with ageing moving at a much slower pace than in Europe, explained by factors such as high rates of immigration and high population growth among immigrants. Latin America and the Caribbean is still youthful, but can expect the number of elderly people to triple by 2050. The working-age population is projected to start declining after 2015 in Europe, 2045 in Asia-Pacific, and 2050 in Latin America and the Caribbean. By contrast, it is expected to increase in sub-Saharan Africa until the end of the century.

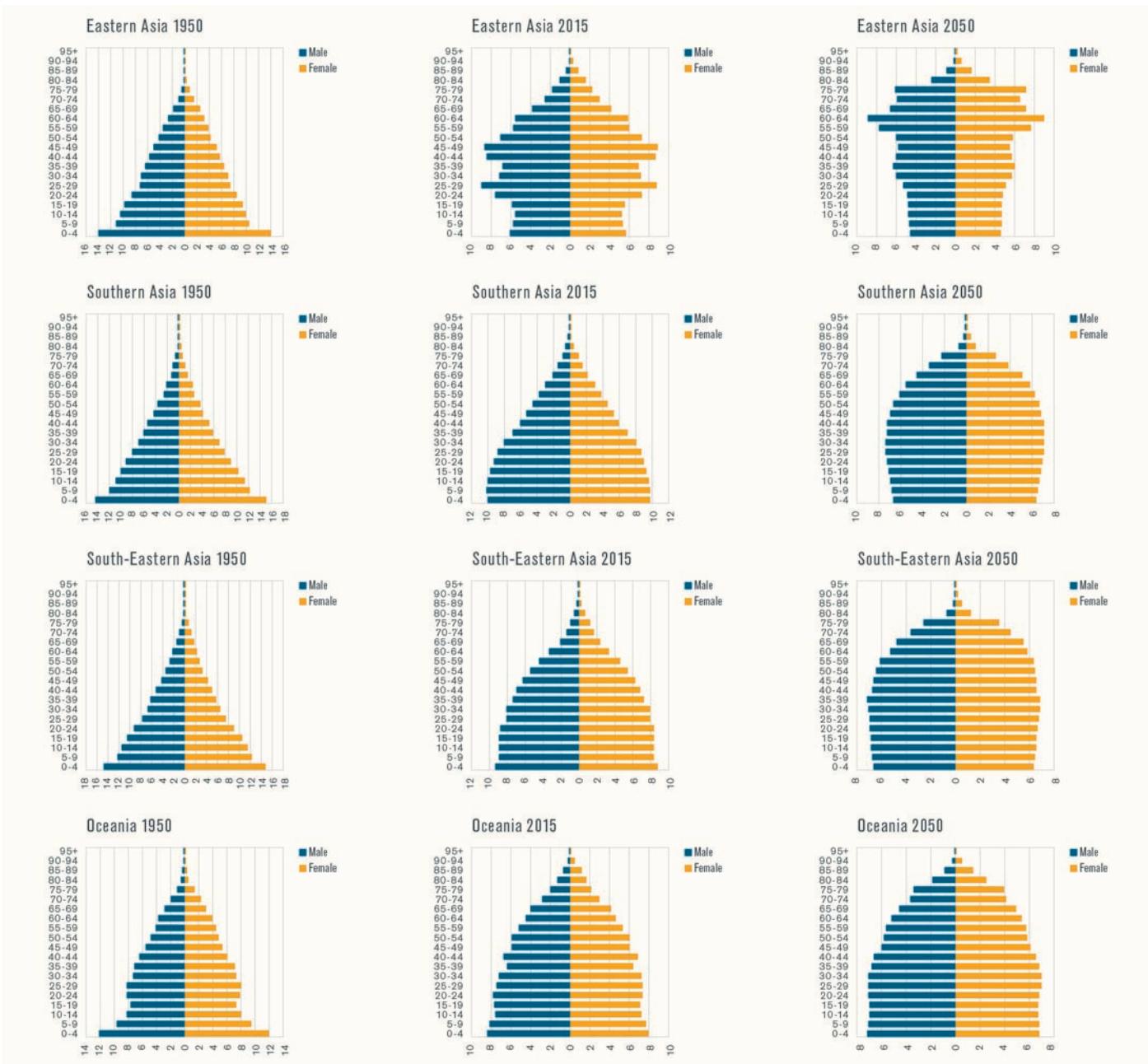
Within Asia-Pacific, all subregions had young populations in 1950, and all have seen shares of children below age 15 fall by 2015 (Figure 1.5). By 2050, shares will likely further decline, alongside an upward swing in the shares of elderly people. But the region's vast diversity is reflected in the different rates at which this is happening. The most dramatic declines will be seen in East Asia, where older people will likely move from being 17 percent of the population in 2015 to 37 percent in 2050. East Asia's age distribution is exceptional, since it is at a more advanced stage of the demographic change. Its working-age population is expected to decline from 2020, a phenomenon not expected in South

**FIGURE 1.4:**  
Population pyramids in 1950, 2015 and 2050 by major regions



Source: Based on UN DESA 2015a.

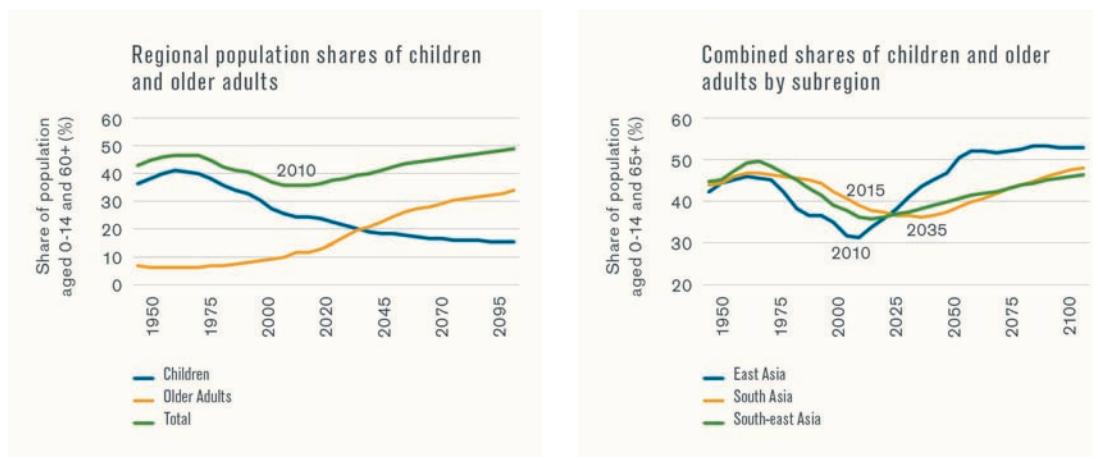
**FIGURE 1.5:**  
**Population pyramids in 1950, 2015 and 2050 by subregion in Asia-Pacific**



Source: Based on UN DESA 2015a.

## FIGURE 1.6:

The current low share of young and old dependents is destined to rise; more will be elderly



Source: Based on UN DESA 2015a.

Asia and South-east Asia until 2055. For the region as a whole, however, population ageing is happening at a much faster pace than it did, historically, in Europe.

Oceania has a unique set of demographic characteristics, since a baby boom, inward international migration and an increasingly ageing population are occurring all at the same time. Consequently, the age structure of its population is more evenly distributed. Today people aged 60 and above make up 16 percent of Oceania's population, with the share edging up to 23 percent by 2050.

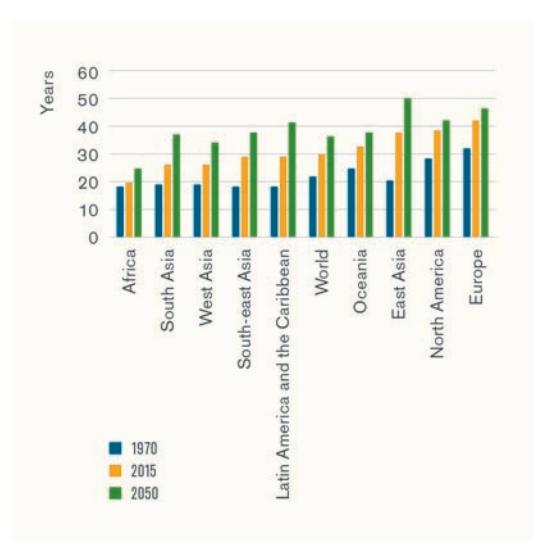
In its share of young and old dependents, Asia-Pacific was at its minimum in 2010 (Figure 1.6). As populations age, the share will rise again. Many countries, including China, are already moving in this direction.<sup>22</sup> Before ageing accelerates, however, from 2010 to 2035, the share of children aged 0 to 14 will remain below 35 percent, and the share of the elderly below 15 percent.

Currently, there are more boys than girls in younger age groups. In older age groups, females tend to outnumber males. By 2050, there may be 52 million more women than men over age 60, a gap that widens after age 80. Ageing, as in other regions, clearly has a marked gender dimension.

## MEDIAN AGE IS RISING

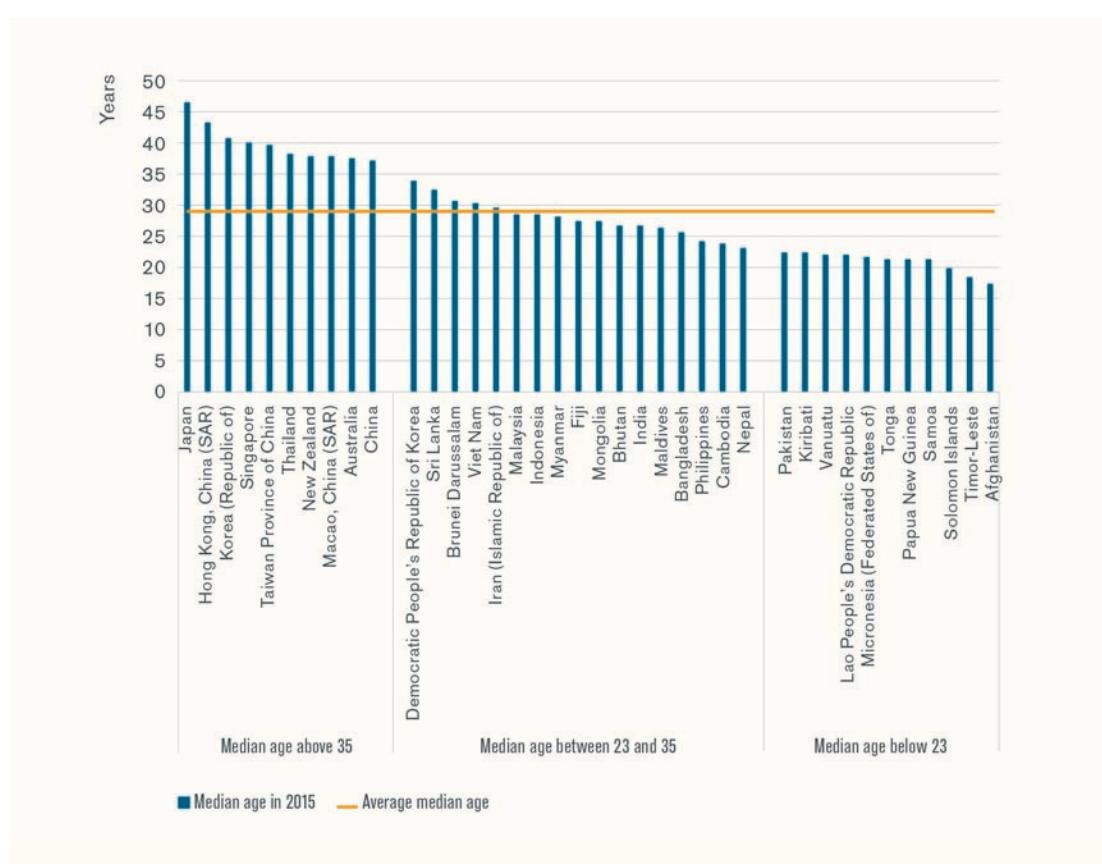
The world as a whole is growing older, with the median age of people globally increasing by seven years in the last four decades—from 22 in 1970 to 29 in 2015 (Figure 1.7). In 1970, all regions had a median age below 35. Today, three are at or above that level: Europe at 42, North America at 38 and East Asia at 38. The regions with the largest increase in median age

**FIGURE 1.7:**  
All world regions have increasing median ages



Source: Based on UN DESA 2015a.

**FIGURE 1.8:**  
**The median age is high in East Asia compared to South Asia and developing Oceania**



Source: Based on UN DESA 2015a.

over the past 40 years include East Asia, which is up 17 years, and South-east Asia, up 10 years. Median age rose in all Asia-Pacific countries, except Afghanistan and Timor-Leste,<sup>23</sup> but populations in South Asia and South-east Asia are still among the youngest in the world.

By 2050, the median age globally is expected to touch 36 years, and to rise to as high as 50 years in East Asia. Over the next 40 years, some of the largest increases are expected in East Asia and South Asia at 12 years, and South-east Asia at 10. North America, Europe and Oceania will have the lowest increases.<sup>24</sup>

Within Asia-Pacific, in 2015, Japan had the highest median age at 46.5 years, while Afghanistan had the lowest at 17.5 years (Figure 1.8). By 2050, the Republic of Korea will edge out Japan to have the highest at 53.9 years; Timor-Leste will have the lowest at 24.3 years. The largest increases in median age, of 16 to

18 years, are expected in Bangladesh, Bhutan, Maldives, Nepal and Viet Nam.<sup>25</sup> Population ageing will be well underway by 2050 in many countries that currently have young populations.

## DRIVERS OF A CHANGING POPULATION

Many factors drive changes in the shares of different ages in a population, but the three most prominent ones occur as people start having fewer children, live longer and migrate. Increased socioeconomic development; improved infrastructure, transport and communication; better health care; and higher levels of sanitation, hygiene and nutrition have all contributed to declining child mortality, falling fertility rates and increasing migration in the last century.

## FERTILITY SETS THE TIMING AND PACE

Fertility may have the biggest impact on when demographic change happens and how fast it progresses.<sup>26</sup> All regions of the world have witnessed remarkable declines in fertility rates, and Asia-Pacific is no exception (Figure 1.9). The regional rate is now just above the replacement level of 2.1 children per woman—meaning that enough babies are born to replace the existing population. The average for the region, however, masks a considerable amount of variation.

Countries and areas can be grouped into three categories based on their fertility rates (Figure 1.10).<sup>27</sup> They are considered advanced in the process of fertility declines if levels have already fallen below the population replacement rate of 2.1 children per women. They are still in the middle of the shift if levels are in the modest range of 2 to 3.5. High fertility levels—above 3.5—indicate that change has just begun.

Advanced countries are mostly located in East Asia with a few in South-east Asia. Having more or less completed their fertility reduction, many have witnessed, or will do so soon, a notable decline in the working-age share of the population, and are moving towards ageing. Those in the middle of the shift include many countries in South Asia. For example, in Bangladesh, Bhutan, India, Nepal and Sri Lanka,

the proportion of youth and young workers is on the rise, and more women are choosing to work. Small island developing states in the Pacific are generally at the start of fertility changes, with children comprising 40 percent of their populations, a share twice that of East Asia.

Of the 15 countries with the world's highest fertility rates, only one is in Asia-Pacific—Timor-Leste, where the average woman has more than five children during her lifetime. On the other hand, of the 15 countries/territories/areas with the lowest rates, well below replacement level, 6 are in Asia-Pacific (Table 1.2).

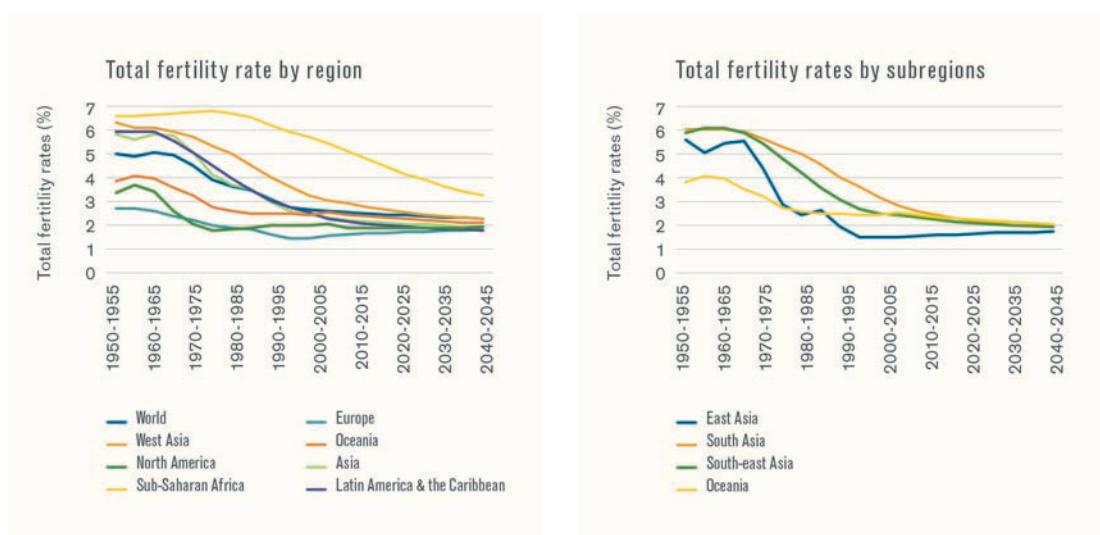
Declines in fertility have generally been high in East Asia, where rates fell from about 5.5 in the early 1960s to 2 by the early 1990s. Oceania is expected to stay above the replacement level for the next four decades before dipping below it in 2050. The situation there is somewhat unique, since both Australia and New Zealand began their demographic change early and are now below replacement level. The Pacific subregion, however, is still relatively high above it, at 2.4 to 2.7 in 2015.

Across the region as a whole, fertility has fallen below the replacement level in 14 countries and areas, mostly in East Asia and South-east Asia. In 11 countries, mainly in South Asia, fertility is just above replacement level. For another 8 countries, typically small island de-

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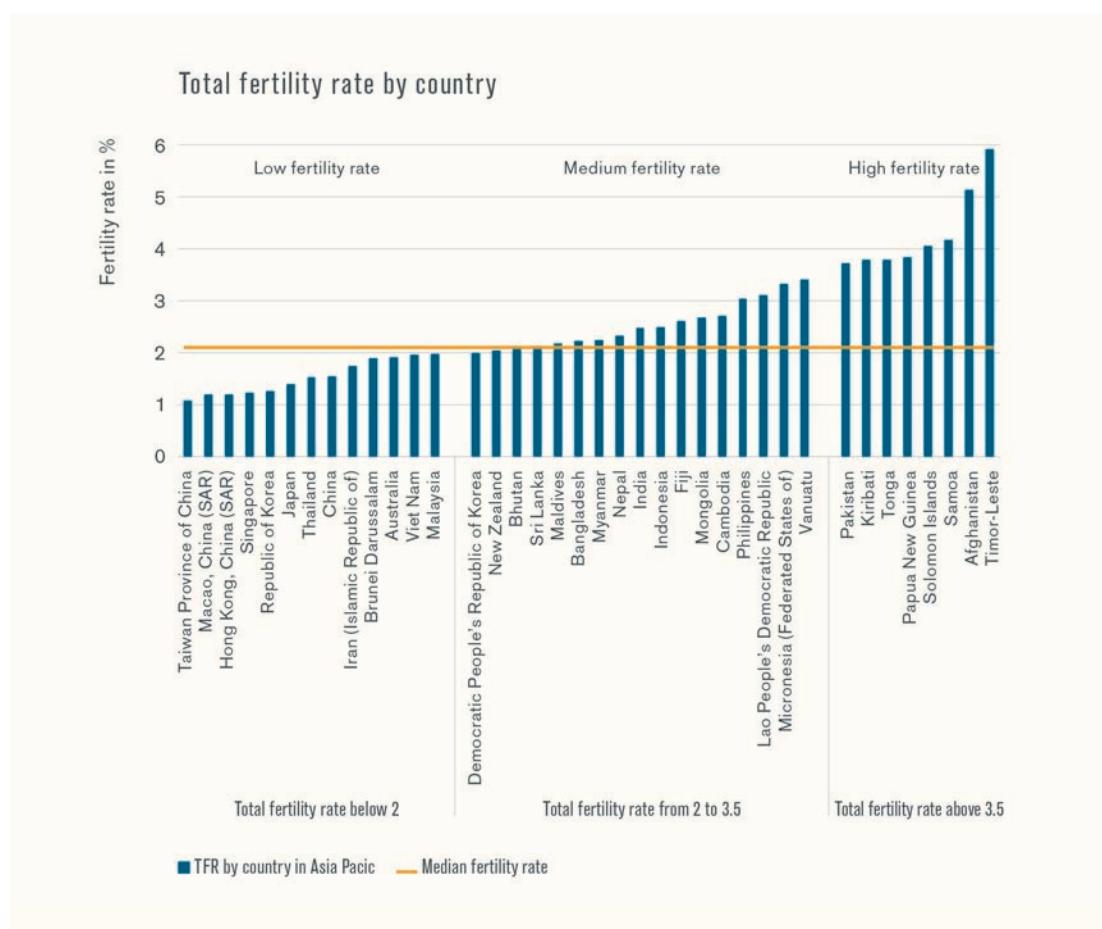
**Declining fertility is a key step towards demographic transformation**

**FIGURE 1.9:**  
Fertility has fallen around the world



Source: Based on UN DESA 2015a.

**FIGURE 1.10:**  
**Disparities in fertility rates between countries in Asia-Pacific are wide**



Fertility has dropped below replacement level in 14 countries and areas, but remains high in 8 countries

Source: Based on UN DESA 2015a.

veloping states in the Pacific, fertility levels are high, putting them still in the earliest stages of demographic change.<sup>28</sup>

Substantial fertility differences are evident within countries. For example, the rate for India in 2012 was 2.4 children per woman,<sup>29</sup> but in individual states, it ranged from 1.6 to 3.1. Twelve Indian states accounting for 50.4 percent of the country's population in 2011 already have a fertility rate below replacement level,<sup>30</sup> meaning half the country has a fertility level similar to developed countries.

Significant fertility differences exist between urban and rural areas. Recent national Demographic and Health Surveys show that urban fertility is lower than rural fertility in almost all Asia-Pacific countries, though differences vary across countries (Table 1.3).

Fertility decline, while coming later to most

Asia-Pacific countries than in highly advanced regions such as Western Europe, has proceeded at a fast pace. Over the last five decades, rates have fallen by at least half in the majority of countries.

In coming decades, the fertility rate will drop in almost all regions of the world except Europe, North America and East Asia (Table 1.4). By 2050, as many as 27 Asia-Pacific countries/territories/areas will fall below replacement level. Only a few, such as Kiribati, will remain above it. Rapid urbanization will accelerate the decline, with rates expected to fall from 2.3 to 1.9 in South-east Asia, from 2.5 to 1.9 in South Asia, and from 2.4 to 2.1 in Oceania.<sup>31</sup>

While Western Europe took more than 75 years for rates to fall to the replacement level, East Asia's decline occurred over only about 20 years. South-east Asia has moved more slowly,

**TABLE 1.2:**  
**Top 15 countries with the highest and lowest fertility rates, 2010-2015**

Lowest fertility rates		Highest fertility rates	
Taiwan Province of China	1.075	Niger	7.634
Macao, China (SAR)	1.192	Somalia	6.610
Hong Kong, China (SAR)	1.205	Mali	6.350
Singapore	1.233	Chad	6.313
Republic of Korea	1.256	Angola	6.200
Republic of Moldova	1.269	Democratic Republic of the Congo	6.150
Bosnia and Herzegovina	1.277	Burundi	6.076
Portugal	1.283	Uganda	5.913
Spain	1.321	Timor-Leste	5.912
Hungary	1.337	Gambia	5.776
Greece	1.343	Nigeria	5.740
Slovakia	1.368	Burkina Faso	5.646
Poland	1.370	Mozambique	5.450
Germany	1.391	Zambia	5.450
Japan	1.396	Malawi	5.250

Source: Based on UN DESA 2015a.

**TABLE 1.3:**  
**Fertility rates are generally lower in urban areas, with variations**

Country	Year of survey	Rural	Urban
Afghanistan	2010	5.2	4.7
Bangladesh	2011	2.5	2
Cambodia	2010	3.3	2.2
India	2005-2006	3	2.1
Indonesia	2012	2.8	2.4
Lao People's Democratic Republic	2009-2011	3.6	2.2
Nepal	2011	2.8	1.6
Philippines	2013	3.5	2.6
Pakistan	2012-2013	4.2	3.2
Sri Lanka	2006-2007	2.3	2.2
Timor-Leste	2010	6	4.9
Viet Nam	2002	2	1.4

Source: USAID 2015.

**TABLE 1.4:**  
**For most countries, fertility rates will continue on a downward path**  
Projected changes in fertility rates in Asia-Pacific, 2045-2050 compared to 2010-2015

Countries with low fertility rates (below 2)	Countries with medium fertility rates (between 2 and 3.5)	Countries with high fertility rates (above 3.5)	Change by region
Macao, China (SAR)	0.55	Sri Lanka	-0.31
Hong Kong, China (SAR)	0.42	Myanmar	-0.46
Taiwan Province of China	0.37	Bhutan	-0.51
Korea (Republic of)	0.35	Maldives	-0.52
Japan	0.30	Bangladesh	-0.56
China	0.19	Mongolia	-0.58
Singapore	0.15	Indonesia	-0.59
Thailand	0.05	India	-0.59
Viet Nam	-0.05	Fiji	-0.63
Iran (Islamic Republic of)	-0.14	Nepal	-0.63
Australia	-0.14	Cambodia	-0.73
Democratic People's Republic of Korea	-0.18	Philippines	-0.84
Brunei Darussalam	-0.21	Lao People's Democratic Republic	-1.21
Malaysia	-0.25	Micronesia (Federated States of)	-1.09
		Vanuatu	-0.96
		New Zealand	-0.23

Source: Based on UN DESA 2015a.

## Improved overall human development leads to longer, healthier lives

requiring about 40 years. South Asia has not yet quite reached replacement level; it might arrive there over about 50 years.

Eight East and South-east Asian countries/territories/areas where rates are already below replacement level could see a marginal rise. Japan's fertility rate plateaued at 1.26 children per woman in 2005, but has bounced back since then, reaching 1.44 in 2015 and projected to be around 1.70 by 2050. This is consistent with slowly rising fertility in many European countries, such as France, Italy, Norway, Sweden and the United Kingdom. Overall, a rise in Europe and North America is meeting a decline in many developing regions, suggesting emerging convergence between the developed and developing worlds.

### MORTALITY DECLINES MARK THE START OF CHANGE

Living a long and healthy life is a basic premise of human development. Lifespan is also an important determinant of population age structure. At early stages of demographic change, death rates fall, particularly among children, a process that began to accelerate in Asia-Pacific in the 1950s and 1960s.<sup>32</sup> Between 1950 and 2010, a majority of the increase in survival was brought about by declines in child mortality.<sup>33</sup>

Because death rates are highest among infants, young children and the elderly, countries with a large proportion of these groups will have higher mortality rates than those where most people are of working age. At present, death rates in Asia-Pacific are driven by the growing number of elderly people. In 2010, 14 percent of deaths were among children and 57 percent were among older adults.<sup>34</sup>

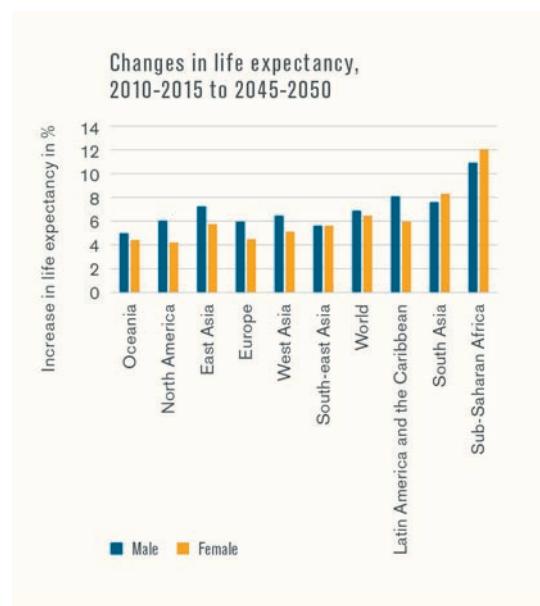
Sixty years ago, global life expectancy was 46 years for men and 48 for women, but has now reached 68 for men and 72 for women, and is trending upward. People in developed countries can now expect to live to 78, a full decade more than 68 for people in developing countries. Within Asia-Pacific, only South Asia is behind the average life expectancy of developing countries, while both Oceania and East Asia have reached the high life expectancy level of Western countries. Since the early 1950s, life expectancy in East Asia and South Asia has

increased by a stunning 30 years, faster than in all regions of the world except the Middle East. As in the rest of the world, women live longer than men.

There are marked variations across countries and territories. Life expectancy exceeds 80 years in Australia; Hong Kong, China (SAR); Japan; Macao, China (SAR); New Zealand, Republic of Korea and Singapore. But in 17 Asia-Pacific countries, it is below the global average of 70 years.<sup>35</sup> By 2030, the region as a whole will likely reach levels similar to those in advanced Western countries today. Globally, life expectancy is expected to climb to 77 years by 2050, with significant increases in less developed regions, such as sub-Saharan Africa and South Asia (Figure 1.11). By 2050, people in South Asia can expect to live to the ripe old age of 76. Slower increases in East Asia and Oceania—to 83 and 82 years, respectively—indicate their higher starting points and the difficulty of achieving further rises beyond a certain level.

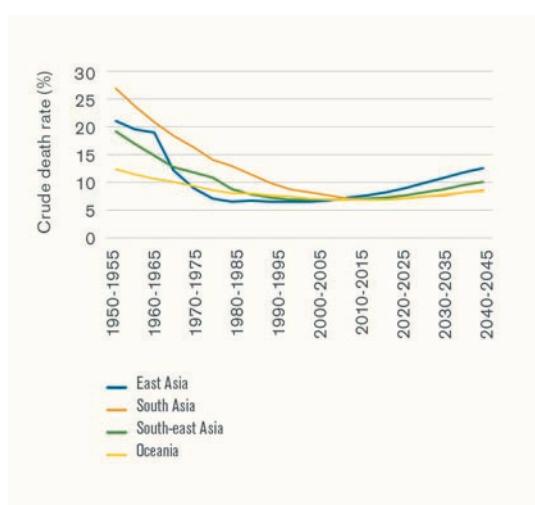
Changes in the crude death rate—which indicates how many people die, at any age, in a given year—also influence a population's shares of different age groups. Crude death rates below 10 per 1,000 people are generally considered low, while those above 20 are high. Since the

**FIGURE 1.11:**  
**Globally, life expectancy is climbing**



Source: Based on UN DESA 2015a.

**FIGURE 1.12:**  
**Crude death rates have declined in Asia Pacific since 1950**



Source: Based on UN DESA 2015a.

1950s, rates have declined quite rapidly in all regions to the current global average of 8. The drop-off has been steepest in South Asia and the Middle East (Figure 1.12).

In Asia-Pacific, as elsewhere in the world, higher standards of living and better health services pushed down death rates well before they affected fertility rates. Rates fell especially rapidly in the 1950s and 1960s, amid an explosion of new medical and public health technology, such as antibiotics and vaccinations against major infectious diseases. All Asia-Pacific countries have seen declines since then, most rapidly in East Asia. Today, crude death rates are less than five in Brunei Darussalam; Islamic Republic of Iran; Macao, China (SAR); Malaysia; Maldives; Singapore and Vanuatu. For divergent reasons, they linger above 8 in Afghanistan, Democratic People's Republic of Korea, Japan and Myanmar.<sup>36</sup>

Conditions affecting mortality differ between urban and rural areas. Medical facilities are more readily accessible in cities, while the risk of contagion or motor vehicle accidents is probably less in rural locales. In many Asia-Pacific countries, infants and young children are two to three times more likely to perish in rural than in urban areas.

While the timing of mortality declines has been remarkably similar across the region, lags

between the drops in mortality and fertility, and sizes of the ensuing fall in fertility, have varied, reflecting diverse socioeconomic contexts.<sup>37</sup> In most countries, fertility began to decline about 15 years after a drop in child mortality. Thailand saw a longer delay, closer to 25 years. Given low fertility in East Asia, deaths are expected to exceed births in the foreseeable future.

Japan is an example of how the crude death rate, after a decline, can begin to edge upward with a large and growing share of elderly people. By 2050, 35 out of 38 Asia-Pacific countries will likely follow a similar pattern and have high rates. China, Democratic People's Republic of Korea, Republic of Korea and Thailand are expected to surpass 12 deaths per 1,000 people.

#### PEOPLE ON THE MOVE: LINKS TO INCOME AND AGE

The movement of people across borders can affect population size, age structure and distribution, but migration is a complex process. Factors influencing it include employment opportunities, globalization, regional economic growth, ageing economies and social changes. It can happen in sudden waves—for example, when refugees flee a war—or slowly over many years.

Links between migration and demographic change can be harder to trace than those of declining fertility and mortality, but there is increasing evidence of how differing age shares can drive population movements. Peoples' choices to move can also influence fertility rates and shares of dependents.

Among world regions, between 1950 and 2015, Europe, North America and Oceania were net receivers of international migrants; Africa, Asia, and Latin America and the Caribbean have been net senders.<sup>38</sup> Regions and countries that were once sources of migrants can become destinations, as is the case for Europe, Japan and the Republic of Korea.

Asian migration grew rapidly through the 1970s-1980s, mainly to Australia, the United States and the Gulf countries. Since the 1990s, migration to the region has grown, increasing by 42 percent to Asia and 71 percent to Oceania from 1990 to 2013.<sup>39</sup> For the region as a whole, however, out-migration is still the dominant trend. From 2005 to 2010, most countries lost

Time lags between  
drops in mortality and  
fertility have varied

**TABLE 1.5:**  
**Countries in Asia-Pacific tend to lose people through migration**  
 Migration flow (in '000) during 2005-2010

Country	In	Out	Net	Country	In	Out	Net
Afghanistan	13	392	-379	Mongolia	0	15	-15
Australia	1164	39	1125	Micronesia (Federated States of)	0	8	-9
Bangladesh	18	2918	-2900	Myanmar	0	498	-499
Bhutan	19	2	16	Nepal	81	179	-99
Brunei	49	46	3	New Zealand	247	182	65
Cambodia	0	254	-255	Papua New Guinea	6	5	0
China	127	2021	-1894	Pakistan	33	2022	-1990
Fiji	2	31	-29	Philippines	30	1260	-1230
Hong Kong (China SAR)	332	156	176	Samoa	1	16	-16
India	709	3632	-2924	Singapore	721	0	721
Indonesia	0	1276	-1277	Solomon Islands	0	0	0
Iran (Islamic Republic of)	291	474	-184	Sri Lanka	1	250	-250
Japan	440	170	269	Thailand	508	15	493
Republic of Korea	80	110	-30	Tonga	0	8	-9
Democratic People's Republic of Korea	19	22	-3	Timor-Leste	0	49	-50
Lao People's Democratic Republic	0	75	-75	Vanuatu	0	0	0
Macao, China (SAR)	55	4	50	Viet Nam	19	448	-429
Maldives	0	0	-1				

Source: Wittgenstein Centre for Demography and Global Human Capital 2014.

## Diversity in stages of demographic transition can help drive migration

more people through international emigration than they gained from immigration (Table 1.5).

Migrants tend to be younger and in their working years. Many leave families at home while pursuing work abroad, potentially contributing to a higher share of children and older dependents in source countries, as has been the case in Nepal and the Philippines. Nearly half the migrants from the region are women involved in domestic and care work in Persian Gulf and Western countries, and other high-income countries of East Asia and South-east Asia.<sup>40</sup>

Around 43 percent of total migration in Asia-Pacific takes places within the region,<sup>41</sup> with the high-income economies of East Asia and South-east Asia drawing people from South Asia and poorer countries in South-east Asia. South-east Asia is a net migrant exporter largely from Cambodia, Indonesia, Lao People's Democratic Republic, Myanmar, Philippines and Viet Nam, while countries such as Brunei Darussalam, Malaysia and Singapore are migrant

recipients.<sup>42</sup> Despite popular belief, migration in the region is not only from low-income to high-income countries. A significant degree takes place between countries at similar income levels, such as between Indonesia and Malaysia.<sup>43</sup>

Temporary migration for employment constitutes the major form in the region. Women comprise 48 percent of migrants overall, but ranging from more than half in high-income countries and areas such as Australia; Hong Kong, China (SAR); Japan; New Zealand and Singapore, to less than 20 percent in least developed countries such as Bangladesh and Bhutan. With domestic work typically perceived as women's work, women make up most of the migrants in these jobs in high-income countries.

Besides disparities in income, a key driver of movement within the region is ageing in some recipient countries, a trend that may grow in the future, including through demand for workers to care for elderly dependents. Ageing countries are opening doors with work visas to

encourage young workers from neighbouring countries to join their domestic labour force. Among East Asian countries and territories, Hong Kong, China (SAR); Japan; Macau, China (SAR) and Republic of Korea host large numbers of migrants from countries in the region with younger populations.<sup>44</sup> The same scenario applies to Australia and New Zealand, which absorb many migrants from the Pacific small island developing states.

The Republic of Korea provides a classic example of encouraging migration to mitigate the negative impacts of ageing (Box 1.3). As a result, the migrant population edged up from 0.5 million in 1990 to 1.2 million in 2013, about 2.5 percent of the total population. International migration is unlikely to reverse long-term demographic trends such as ageing, however. To keep its working population constant at the 36.6 million people projected for 2020, the Republic of Korea will need some 6.4 million immigrants between 2020 and 2050, or 213,000 per year, an implausible scenario for reasons including uncertainty about the source of so many migrants.<sup>45</sup>

### BOX 1.3: Promoting migration to welcome a younger labour force

In 2003, the Republic of Korea introduced the Employment Permit System for hiring low-skilled workers aged 18 to 38 in manufacturing, construction, agriculture, services and fishery. The system operates through bilateral government-to-government agreements with, so far, 15 sending countries. This approach is an attempt to ensure that labour laws apply to migrant workers, reduce corruption, curtail human rights abuses, and promote transparency in recruitment and employment. The Republic of Korea, for example, requires that recruitment, selection and placement of workers be managed by the sending country's government or government-affiliated organizations. Fees are fixed and openly advertised in the country of origin.

Viet Nam and Indonesia have sent the largest numbers of migrant workers under the scheme. Viet Nam has a relatively large and young population, and it has introduced a labour exporting policy to reduce pressure on its domestic labour force

Rising rates of migration within countries in large part stem from historically rapid urbanization, and can also shift the distribution of age groups. Youth and younger working adults tend to migrate to cities for higher education or employment, whereas older people stay behind in rural areas. This pattern is likely to remain a key driver of demographic changes in the coming decades, particularly in Asia-Pacific developing countries. The socioeconomic implications are many and diverse, such as growing demand for jobs in cities, and greater need for improved health care in rural areas.

## HOW DEMOGRAPHIC TRANSITION WORKS

Demographic transition stems from changes in human behaviour, socioeconomic and cultural factors, levels of human capabilities and opportunities, and the overall state of human development. These dimensions, widely variable across different countries, determine the pace

Demographic transformations pose significant opportunities and risks

and enhance poverty reduction. In 2013, nearly 55,000 migrants from Viet Nam went to the Republic of Korea through the Employment Permit System, 23 percent of the total. Remittances in 2014 totalled \$525 million, comprising 4 percent of the total received in Viet Nam. About 6 percent of Vietnamese households receive remittances, although lower-income households only capture 3 percent of the total.

Indonesia has a relatively young population and a high youth unemployment rate of around 21.8 percent. It sent just over 26,000 migrant workers through the Employment Permit System in 2013, 11.1 percent of the total. In 2014, remittances from the Republic of Korea reached \$68 million. As the majority of Indonesian migrant workers come from low-income groups, remittances are often the main income for their households, contributing approximately 31.2 percent of total income.

and scope of demographic shifts, but in all cases, the three drivers of a changing population play determining roles.

Transition begins with a fall in mortality, especially among children, as health care, including sanitization and hygiene, and nutrition improve. Initially, this means people have more children, but eventually, as the prospects of survival increase, families are motivated to have fewer children. They are able to devote more resources to the health, education and overall well-being of each child, building capabilities that will equip them to be more productive as adults (Figure 1.13).

In the middle stage of transition, the share of the working-age population increases on the back of past high fertility rates and declining infant mortality rates. It is high compared to the shares of the older and younger people who depend on them. With families becoming smaller, more women seek paid employment outside the home. Many young workers move to urban areas where salaries and living standards are higher, jobs are more productive, and they can begin to accumulate savings and other assets. This process as a whole can accelerate economic growth and begin to yield a demographic dividend.<sup>46</sup> If it provides decent work and other

opportunities accessible to all, growth will be inclusive and high in quality, and contribute to human development.

A large share of people in the workforce can spur tax collection, even as a lower share of dependents implies fewer social security expenditures, such as for education and health. Governments may have the resources and flexibility to invest in economic sectors linked to inclusive growth, and to continue investing in human capabilities, such as through quality education and improved health care, that advance and sustain human development, and ensure its benefits are broadly shared.

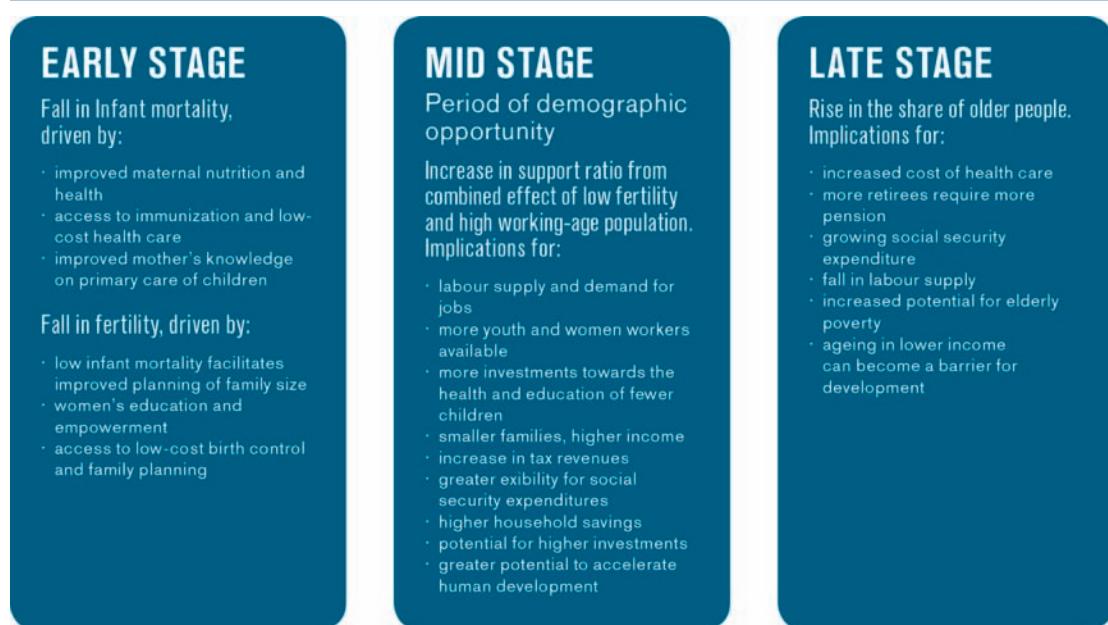
Gradually, the median age of the working population increases. At the middle or close to the end of their working life, people are likely to earn and save more, particularly with fewer children and more women working. The propensity to save also rises as people plan for their retirement, which can lead to increased investment, a positive for economic growth and the demographic dividend.

The final stage of transition, typically occurring after many decades, is when ageing sets in, bringing challenges and opportunities for individuals, governments and economies. More people enter retirement. As people tend to live

"When relatively large generations reach the prime ages for working and saving, a country will experience a demographically induced economic boost, provided this demographic cohort is productively employed."

- Bloom et. al. 2010

**FIGURE 1.13:**  
**The broad stages of demographic transition**



longer with improved availability of medicine and technology, the demand for pensions and health care increases. Countries that used their period of demographic dividend well will be in a better position to support a larger share of older people. Investments made at an earlier stage are critical to sustaining human development gains during rapid ageing.

Some countries today, including in Asia-Pacific, are looking at a future of ageing before reaching a higher level of human development. For others, human development needs to accelerate for demographic change to begin. The extent to which countries in different stages can leverage demographic change to attain higher human development depends very much on policies, choices, institutions and long-term investments.

### DEMOGRAPHIC CHANGE AND HUMAN DEVELOPMENT

Demographic changes influence economic growth and human development through several channels (Figure 1.14). The first is an increased number of people in the workforce. A second channel entails improved human capabilities, built through investing more resources in education and health as well as the effective use of the knowledge and expertise of a more experienced population. When fertility falls and the number of children in a family declines, there is greater potential to invest in the health

and education of children, leading to improved human development.

The third and fourth channels are improved productivity and enhanced savings, when the workforce is better educated, and people earn higher wages and make greater profits. A fifth channel is through increasing domestic demand, as greater earning and spending feeds economic growth. Urbanization is the last channel. As more and more people flock to urban areas, they can find better health care and education, and diverse opportunities for decent work, all factors of central importance to human development.

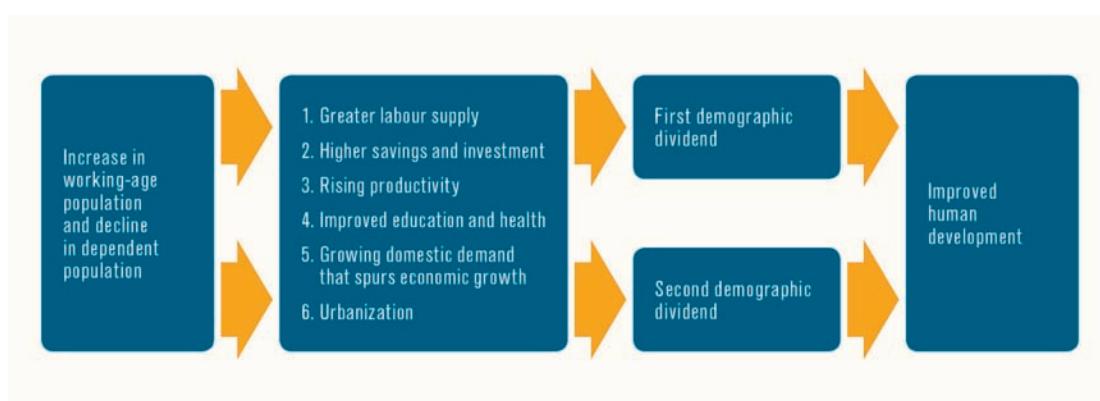
While increases in the labour supply, savings and human capital can all by default speed up economic growth and contribute to human development, strategic policies, responsible institutions, targeted investment and good governance need to be in place to make the most of potential gains. A number of challenges can arise, foremost among which is creating a sufficient amount of decent work for growing numbers of young people joining the labour force. Another factor involves strengthening the financial sector so that people find adequate, safe instruments for savings and investments.

A dimension that is often less discussed is how the bulge in the working-age population can undermine socioeconomic stability if people are not provided with decent jobs. Worrying trends also include the shift of the dependency burden from supporting the young to caring for the elderly. And accelerated urbanization can

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*A large working-age population may undermine socioeconomic stability if people lack decent jobs*

**FIGURE 1.14:**  
**With appropriate policies and a conducive environment, demographic changes can improve human development by several channels**



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**Having fewer dependents on working-age people encourages accelerated economic growth**

come at a hefty price, such as through health-endangering air pollution and the generation of greater amounts of waste.

The Republic of Korea provides an example of managing demographic transition to advance human development. As the country's birth rate declined in the mid-1960s, elementary school enrolment fell, which released funds. The Government invested these in improving the quality of education at higher levels to equip the growing working-age population with marketable skills, and fostered economic growth to create more jobs through strategic investments. Essentially, the Republic of Korea used its demographic window to educate its population, including women, and to integrate them successfully into the labour market, leading to rapid economic growth and higher standards of living across its population.

Broadly speaking, to reap demographic dividends and transform these into greater human development, patterns of public investment need to respond to demographic changes. Countries with a very youthful population need to invest more in schools; those with a large working-age population need to create large numbers of decent jobs; and those with an extensive elderly population need to invest more in health, transportation and other public facilities, as well as old-age pension systems.

#### TWO TYPES OF DIVIDENDS

Demographic change offers two potential dividends, which can be significant.<sup>47</sup> The first demographic dividend occurs when fertility rates fall and the labour force grows more rapidly than the dependent population. This builds on a simple equation: more labour equals more economic output, assuming no major drag from unemployment or underemployment.

A second demographic dividend unfolds as transition proceeds if the larger number of workers is also more productive. This comes about in part through investments in human capabilities, such as through health and education, that, for instance, allow people to do more skilled jobs. Over time, they can then earn more, save more and acquire more assets such as homes, land and businesses.

Both demographic dividends can translate

into economic and human development gains. They are roughly sequential, with the first lasting for three to five decades depending on the speed at which fertility declines. The second begins later, can be sustained for a longer period and may be larger. Some overlap may occur, and neither dividend is automatic, with demographic transition merely opening a window of opportunity.

The first dividend declines as population ageing sets in, and links to economic growth then tend to diverge for the second dividend. High-income countries have experienced this, and soon many middle-income countries will do so as well. Expenditure on health care rises as infectious diseases retreat and chronic, degenerative non-communicable diseases dominate, for instance. The ability to manage changes like these rests largely on the shoulders of the workforce, and its capacity for productive work, backed by a sufficient supply of decent employment options. Even if the number of workers falls relative to the number of dependents, they may be much more productive than a larger, less educated workforce.<sup>48</sup>

#### MEASURING IMPACTS OF DEMOGRAPHIC CHANGE

Early thinking around the impacts of demographic transition focused heavily on the contributions of the demographic dividend to economic growth. As far back as 1958, a study of India and Mexico found high costs from large shares of young and old dependents in a given population. Savings rates for families with a large number of children were lower, and requirements for social spending on health, education and so on were great. Productive capital per person was more limited. The study suggested that declines in fertility, by lessening dependency burdens on working-age people, could free them for activities that promote economic growth.<sup>49</sup>

In the last two decades, a number of studies have estimated demographic dividends. One covering the years from 1965 to 1990 suggested that 25 percent to 40 percent of East Asia's economic miracle, defined as an increase in per capita income, could be attributed to demographic transition.<sup>50</sup> Another on China calculated that, from 1980 to 2000, changes in age structure

favouring a higher share of economically active adults accounted for 15 percent to 25 percent of growth in per capita output.<sup>51</sup> An analysis of India's rapid growth since the 1980s attributed a substantial share to changes in the country's age structure, and predicted this could continue adding about 2 percentage points per year to per capita GDP growth over the next two decades.<sup>52</sup> Globally, current estimates project that for every 1 percentage point increase in the working-age population, real per capita GDP growth rises between 0 and 1.1 percentage points, depending on the region.<sup>53</sup>

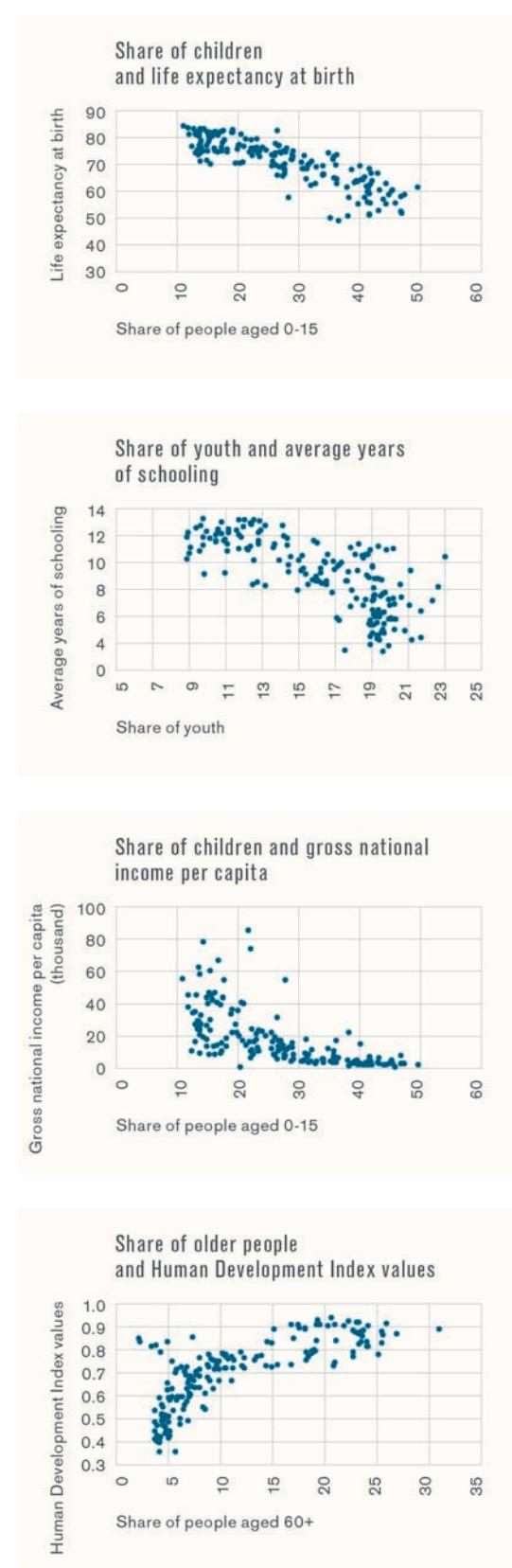
The demographic dividend, like many economic variables, is measured through an accounting framework linked to gross domestic product (GDP). This includes much of paid employment and its contributions to the demographic dividend, but does not factor in the significant share of other kinds of work performed by people—namely, unpaid care work that typically takes place in homes as well as through volunteering.

Despite the lack of measurement, unpaid work makes significant contributions to economic prospects and human well-being, as highlighted in the 2015 global *Human Development Report*.<sup>54</sup> It likely intersects with the potential size of the demographic dividend, underscoring the need for better measurement and more systematic analysis. In Agenda 2030, governments agreed to recognize and value unpaid care and domestic work, including through the provision of appropriate public services, infrastructure and social protection policies, and by promoting shared responsibility for it, since women and girls still perform a disproportionate amount. Progress will be measured through collecting stronger data on the proportion of time spent on unpaid domestic and care work by sex, age and location.

## STATISTICAL LINKS TO HUMAN DEVELOPMENT

Income and economic growth comprise one aspect of human development, but similar relationships are apparent when tracking demographic shifts against the HDI. Countries with high fertility rates and high population growth tend to have low HDI rankings relative to those with

**FIGURE 1.15:**  
**Population age-composition is intrinsically linked with human development**



Countries with high fertility tend to have low Human Development Index scores

low fertility and older populations. As China, Japan and Thailand passed through demographic transition, their human development indicators improved significantly.

Looking at some of the other components of human development, such as life expectancy, globally, countries with more than 30 percent of their population in the 0 to 15 age group have a life expectancy below 70 years on average. As countries move away from a predominantly young population, life expectancy improves (Figure 1.15).

Among countries in the early stage of demographic transition, some have lowered fertility rates but still have large numbers of youth. At this stage, the average number of years spent in school tends to be low, with limited public resources for education spread over larger numbers of students. As the share of youth falls, people tend to attain higher levels of education.

Countries in the early stages of demographic change with a large share of children also tend to be in lower income groups. Countries with 30 percent to 50 percent of the population aged 0 to 15 are generally in the low- or middle-income categories, while countries with less than 30 percent in this age group and at a more advanced stage of transition are in the higher income category.

Countries in the most advanced stage of demographic transition are those experiencing ageing. Those with a greater proportion of people over age 60 tend to have higher HDI ranks, such as the European countries. Nations with high HDI values that are not yet ageing include some from the Middle East, such as Kuwait, Saudi Arabia and the United Arab Emirates. Many have large shares of younger migrants.

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In developed Asia-Pacific, the dividend has contributed to 42 percent of economic growth

## HOW MUCH IS THE DEMOGRAPHIC DIVIDEND?

To measure the impacts of changes in population age composition on economic growth, a simple growth model is used, as discussed in Box 1.4.<sup>55</sup> Estimating demographic dividends using this model confirms that economic growth has been supported by favourable demographic tailwinds over the last four decades (see Table 1.6 and 1.7). For the world as a whole, the first and second demographic dividends combined added six-tenths of a percentage point to economic growth, compared with actual GDP growth of 1.4 percent per year—in other words, equal to about 40 percent of overall per capita economic growth.<sup>56</sup> The dividend contributed one-half percentage point to world economic growth in 1970 to 1990, when it was in general higher among developed countries, and a full percentage point in 1990 to 2010, as transition began in earnest in many developing countries.

Developed Asia-Pacific countries experienced their largest first dividends (0.64 percentage points) from 1970 to 1990, led by Australia, Brunei Darussalam, Japan, New Zealand, Republic of Korea and Singapore—countries further advanced in demographic transition (Table 1.6). Their first dividends, however, began to fall from 1990 to 2010, as working-age populations began to shrink. The combined effect of the first and second dividends from 1970 to 2010 contributed to 42 percent of economic growth.

Developing Asia-Pacific experienced a smaller first dividend in the earlier period, but a larger first dividend from 1990 to 2010, given that it is further behind in its demographic transition than developed Asia-Pacific. Within developing Asia, East and South-east Asia enjoyed modest first dividends from 1970 to 1990, of 0.38 percent and 0.31 percent, respectively. In South Asia, in contrast, the first dividend was still negative at the time, indicating that the working-age population was still small.

From 1990 to 2010, the first dividends picked up in all of Asia-Pacific's developing regions, particularly in East Asia, led by China. It acquired almost 0.78 percentage points of additional growth. In South-east Asia and South Asia as well the first dividend began to

rise. As fertility rates fell substantially, developing countries began to invest more resources in the education and health of children, boosting increases in the second dividend as well. Overall, the demographic dividend contributed to 39 percent of economic growth in developing Asia-Pacific.

Elsewhere in the world, developed regions, including Europe and North America, experienced larger first dividends from 1970 to 1990, mostly as a consequence of baby boomers entering the workforce. Their dividend then became smaller from 1990 to 2010. In the latter period, however, the first dividend picked up in developing parts of the world, including in Latin America and the Caribbean, and modestly in Africa, where fertility rates are still high and the population is very young. The second dividend was substantial particularly in more developed regions such as North America, Latin America and the Caribbean from 1990 to 2010, where the favourable effects of wealth and human capital accumulation began to show.

Projections for 2010 to 2020 illustrate that demographics will continue to strongly favour

economic growth in Asia-Pacific countries and elsewhere (Table 1.7). In developed Asia-Pacific, however, the first dividend has now begun to turn negative (Box 1.5). With population ageing, the number of consumers exceeds that of producers, slowing economic growth, although this is more than offset by the second dividend from increasing productivity and savings.

For developing Asia-Pacific, both demographic dividends will continue to be positive in the coming decades, and could add about 0.73 percentage points per year to economic growth between 2020 and 2050. Favourable effects will begin to shift during that period, however, as the share of working-age people begins to retreat, moderately for the world as a whole and rapidly for the developed countries. The largest decreases are projected for Europe and developed Asia-Pacific, followed by developing East Asia, given very low fertility and rapid population ageing. Second dividends, however, may continue to offset declining first dividends, if conditions for growth and human development exist.

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In developing Asia-Pacific, the demographic dividend has contributed to 39 percent of economic growth

#### **BOX 1.4:** **A model for measuring the size of the demographic dividend**

The model is based on the following accounting identity:

$$Y/N = Y/L \cdot L/N$$

Where,  $Y = \text{GDP}$ ;  $N = \text{Population}$ ;  $L = \text{labour force}$ ;  $Y/N$  is income per capita effective consumer;  $Y/L$  is income or output per effective worker; and  $L/N$  is the ratio of effective workers to the effective population, also known as the support ratio.<sup>57</sup>

Taking growth rates on either side leads to:

$$\text{gr}(Y/N) = \text{gr}(Y/L) + \text{gr}(L/N)$$

Which states that the growth rate of income per capita equals the growth of labour productivity plus the growth rate of labour supply relative to the population.

The second term on the right-hand side of the equation measures the first demographic dividend, which is the relative size of the labour supply, while the first term measures the second demographic dividend, which is the productivity level of the workforce.

For the purposes of estimation, the first demographic dividend or the relative size of the labour supply across countries has been measured using data on the number of workers between the ages of 30 and 49, average wages that denote output per labour and the total population in the country.

The second demographic dividend across countries has been measured using data on human capital, including years of education and health data to denote labour productivity, as well as physical capital, using data on savings and pensions.

**TABLE 1.6:**  
**Demographic dividends fluctuate over time, but add up to a powerful impact on growth (%)**

	1970-1990			1990-2010		
	First dividend	Second dividend	Combined	First dividend	Second dividend	Combined
<b>Developed Asia-Pacific</b>	0.64	0.87	1.51	0.2	1.09	1.29
<b>Developing Asia-Pacific</b>	0.11	0.39	0.5	0.59	0.69	1.29
East Asia, developing	0.38	0.18	0.56	0.78	0.76	1.53
South-east Asia, developing	0.31	0.12	0.43	0.57	0.82	1.39
South Asia, developing	-0.17	0.36	0.18	0.71	0.46	1.17
Rest of the world						
<b>Developed countries</b>	0.46	0.33	0.79	0.26	0.72	0.99
<b>Developing countries</b>	0.11	0.3	0.42	0.47	0.52	0.99
<b>North America</b>	0.61	0.17	0.78	0.04	0.8	0.85
<b>Europe</b>	0.28	0.31	0.58	0.16	0.6	0.76
<b>Latin America and the Caribbean</b>	0.47	0.43	0.91	0.54	0.83	1.36
<b>Africa</b>	-0.13	0.21	0.09	0.33	0.18	0.51
<b>World</b>	0.23	0.32	0.54	0.4	0.61	1.01

Source: Based on Mason 2015.

**TABLE 1.7:**  
**Demographic dividends will continue to pay off in the coming decades (%)**

	2010-2020			2020-2050		
	First dividend	Second dividend	Combined	First dividend	Second dividend	Combined
<b>Developed Asia-Pacific</b>	-0.35	1.12	0.77	-0.5	0.7	0.2
<b>Developing Asia-Pacific</b>	0.48	0.91	1.39	0.05	0.67	0.73
East Asia, developing	0.28	1.42	1.7	-0.37	0.99	0.62
South-east Asia, developing	0.42	1.04	1.46	-0.03	1.02	0.99
South Asia, developing	0.68	0.93	1.61	0.1	0.43	0.53
Rest of the world						
<b>Developed countries</b>	-0.16	1.1	0.94	-0.45	0.69	0.24
<b>Developing countries</b>	0.37	0.85	1.22	0.09	0.89	0.97
<b>North America</b>	-0.45	0.87	0.42	-0.29	0.34	0.05
<b>Europe</b>	-0.21	0.9	0.69	-0.42	0.57	0.15
<b>Latin America and the Caribbean</b>	0.16	1.12	1.28	-0.09	0.8	0.7
<b>Africa</b>	0.41	0.49	0.91	0.32	0.81	1.14

Source: Based on Mason 2015.

## BOX 1.5: Japan's first and second demographic dividends

Japan was the first Asian country to experience fertility decline and dramatic increases in life expectancy (Figure 1.16). In the 1950s, 1960s and to a lesser extent the 1970s, Japan enjoyed a first demographic dividend equal to about half a percentage point of economic growth, while the second dividend added about 1 percentage point. By the 1980s, the first dividend phase was over, but the second dividend continued to favour economic growth, adding between 1 and 1.5 percentage points. By 2000, the first dividend had turned negative but was still balanced by the second dividend, indicating a modest net contribution to economic growth.

**FIGURE 1.16:**  
**Japan's negative first dividend is balanced by a positive second dividend**



Source: Based on Mason 2015.

## HISTORIC CHANGES, LIMITED TIME

Asia-Pacific is a vast region, diverse in its human development and demographic profile. But three broad, common patterns are evident. First, the region is experiencing sweeping demographic changes. Second, this is happening at a historically rapid pace—and it will not last forever. Finally, while East Asia has already reached a relatively advanced stage in its demographic transition, and thus needs to prepare for an ageing population, other subregions have a few decades to leverage potential dividends. Many Asia-Pacific countries are currently in the middle stages of change.

Demographic shifts have far-reaching implications across all elements of human development. At the same time, appropriate policy choices and consistent investments in human development are critical to make the most of the demographic window of opportunity. If countries plan for the transition, build human capabilities, encourage creativity and innovation to flourish, and ensure the process is guided by mechanisms for participation and accountability, individuals and societies as a whole can end up better educated, healthier and wealthier.

Lessons from one setting are hardly likely to be fully effective in others. There is little scope for a uniform set of recommendations to move forward. Each country needs to study its demographic trends, and their causes and consequences, with reference to their development goals. They must identify problems and take corrective actions accordingly. Political will to do this is crucial, particularly to steer the demographic dividend in inclusive ways that benefit all people, now and for generations to come.

**There is no one-size-fits-all strategy; each country needs to study its demographic trends and take actions accordingly**



# Chapter 2

MORE PEOPLE AT WORK:  
THE FOUNDATION FOR IMPROVED WELL-BEING



## 2. MORE PEOPLE AT WORK: THE FOUNDATION FOR IMPROVED WELL-BEING

Asia-Pacific today has a unique opportunity to accelerate human development, with more working-age people, and fewer older and younger dependents than at any point in its history. Its workforce is growing at an unprecedented rate, with 2.8 billion people aged 15-64 in 2015. The share of the working-age population increased from 58 percent in 1980 to its current peak of 68 percent. Correspondingly, the share of dependents, young and old, has declined from 42 percent to its present minimum of 32 percent.<sup>1</sup>

These shifts offer many potential benefits. East Asian economies, further along in the demographic transition, have had tremendous success during periods with large working-age populations. In the last three decades, the share of China's working-age population grew from 56 percent to a peak of 74 percent in 2010. During the same time, the country enjoyed stellar economic growth rates—double-digit figures in most years. As millions of Chinese workers flooded labour markets, China's manufacturing and trade with the rest of the world took off. Japan enjoyed its own 'miracle' of growth during 1950-1970, when its economically active population was large. Having reached higher levels of income during its most productive years, Japan is now better positioned to manage an ageing population.

Not all countries have been successful, however, in tapping the full human development benefits of demographic transition. Transition presents opportunities, but countries must then take actions to seize these. For those embarking on transition in the coming decades, the aim should be to make policy choices and investments that steer the process towards maximizing human development benefits. These need to reach all people while avoiding irreversible environmental harm.

It is possible for countries to use the demographic dividend to become healthier, wealthier and better educated. This depends largely on inclusive, high-quality economic growth and investments in human capabilities. By contrast, if, for instance, the growth of decent jobs is not at par with an expanding labour force, unemployment and underemployment may rise, and wages will fall. The share of people who are working but still earning below the international poverty line is already large in Asia-Pacific, and their numbers are likely to escalate with more entrants into the labour force. Eventually, the failure to deliver on growing expectations could put social stability at risk.

This chapter provides an overview of the working-age population in Asia-Pacific today. It explores the potential for capturing a demographic dividend, and analyses opportunities and challenges. Historical analysis sheds light with experiences from three countries—China, Japan and Thailand—that are further along in their demographic transitions. A final section looks at policy frameworks to channel demographic opportunities into expanded human development.

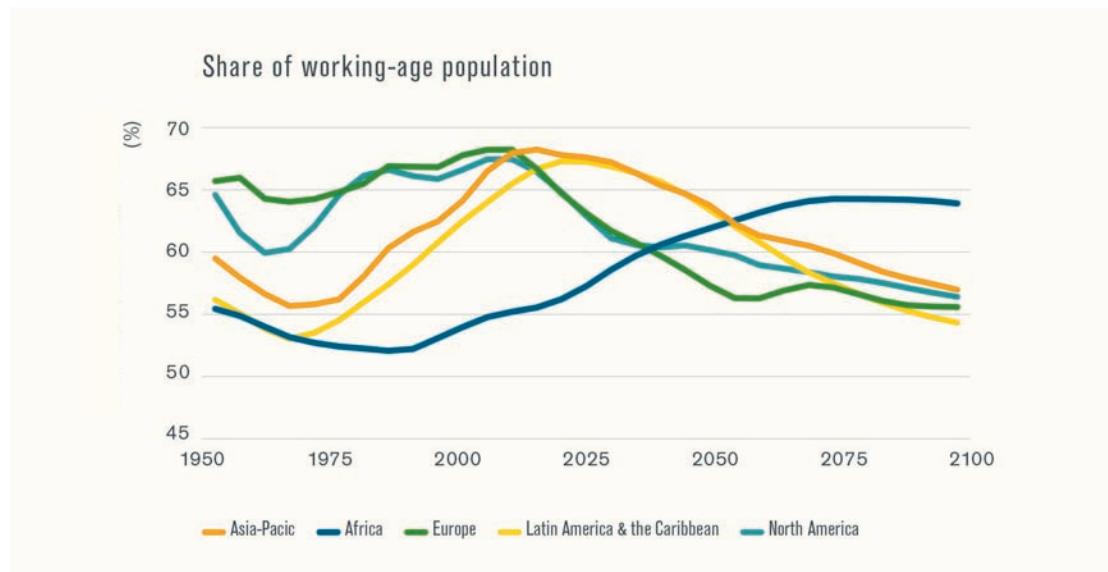
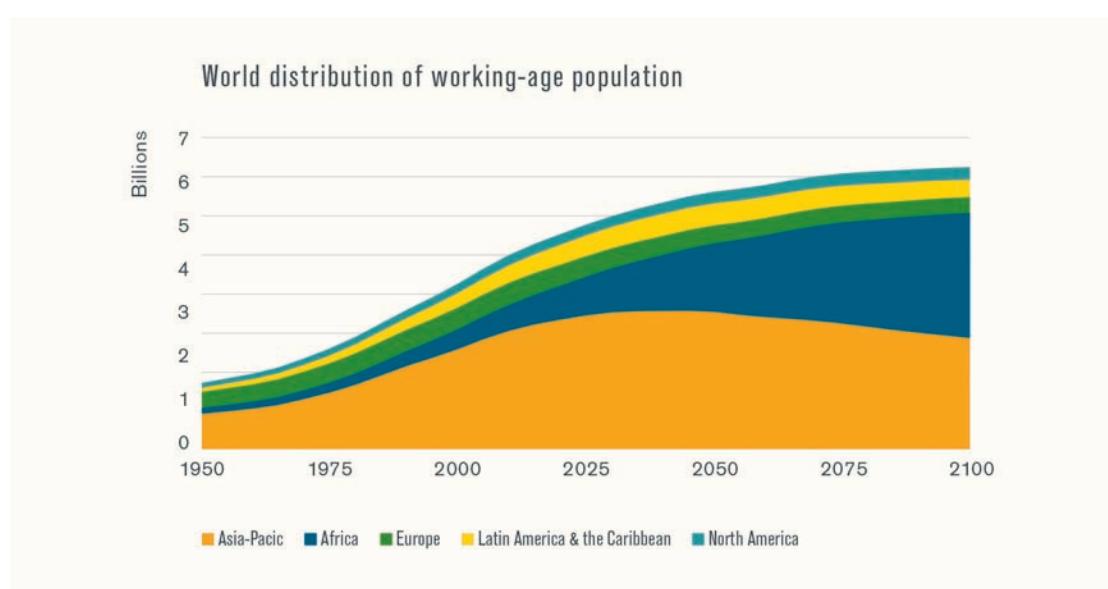
# RECORD NUMBERS OF WORKING-AGE PEOPLE

Asia-Pacific's working-age population, comprising 58 percent of the global total, continues to grow (Figure 2.1). China and India comprised 62 percent of the region's share in 2015, with 1 billion and 0.86 billion workers, respectively. But China's share of working-age people is now falling, while India's continues to rise, expected to touch a maximum of about 1.1 billion in 2050.

The region as a whole will reach its maximum number of working-age people, at 3.1 billion, in 2045.

Variations within the region mean that East Asia reached its maximum share of working-age people at a remarkable 73 percent in 2010, while South-east Asia is peaking shortly at 69 percent (Figure 2.2). South Asia's share will continue to rise until 2040. At present, the median ages in East Asia, South-east Asia and South Asia are 38, 29 and 26, respectively, a disparity prompting growing migration within the region. It has also

**FIGURE 2.1:**  
**Almost 60 percent of working-age people live in Asia-Pacific**



encouraged labour-intensive industries from East Asian countries, including Japan and the Republic of Korea, to relocate to South-east Asian countries, where the labour pool is still young and costs remain low.

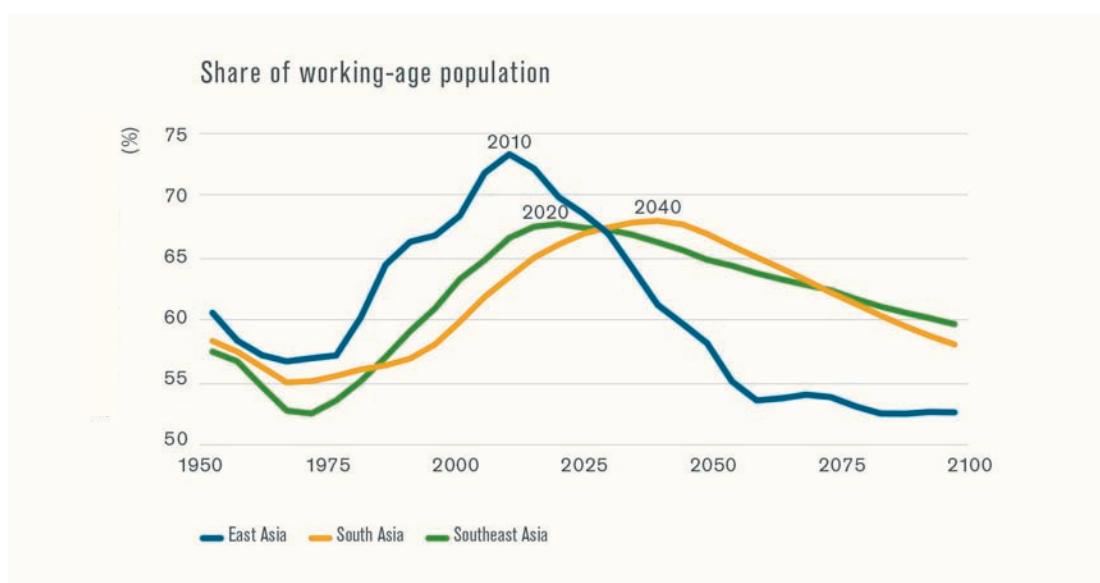
Peaks in the number of potential workers diverge widely. East Asia reached its peak at 1.2 billion in 2015, while South-east Asia will not do so until 2055, with half a billion people in the working-age group. South Asia will have more working-age people than any other subregion, with the largest surge by 2055 to a

projected 1.6 billion, dominated by India. More than 280 million more people will be eligible to enter the job market in India by 2050, a third more than the current number.

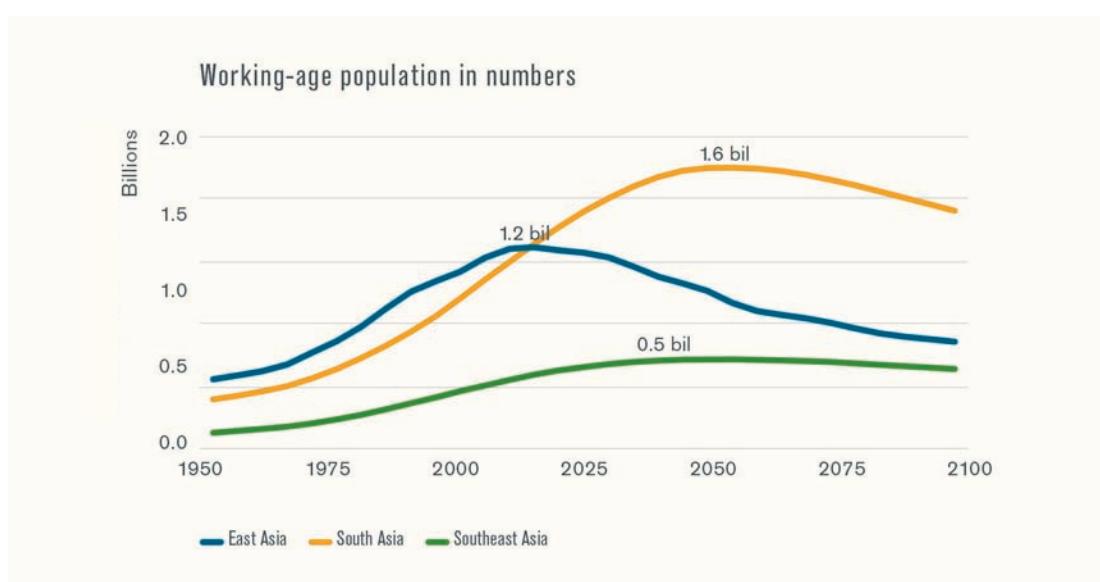
### REACHING THE PEAK IN THE WORKING-AGE POPULATION

The peak in the working-age population may be gauged as either the absolute number of working-age people or as their share in the population. For Asia-Pacific, the peak comes

**FIGURE 2.2:**  
Within Asia-Pacific, the size and share of the workforce varies over time and by subregion



East Asia is most advanced in its demographic transition



later when numbers are used (Table 2.1). For example, East Asia reached its maximum number of working-age people in 2015, but the share started declining in 2010. The share matters because it defines the working population in relation to younger and older dependents.

In East Asia, Japan is most advanced in its transition to an ageing population, having passed its maximum number of working-age people in 1995 (Table 2.1 and Figure 2.3). Its share was above 60 percent in 1960 but declined to 56 percent in 2010. China and the Republic of Korea have just passed their peaks, and working-age populations are declining in numbers and shares. The Democratic Republic of Korea and Mongolia have the youngest populations in this subregion; the share of their working-age people will crest soon, but their numbers will continue to grow until 2030 and 2050.

Although South-east Asia will reach a peak share in 2020, it will then plateau, implying a demographic transition that will stretch over a longer period. Many countries will reach a maximum number of working-age people between 2045 and 2050, except for a few such as Indonesia, Lao People's Democratic Republic, the Philippines and Timor-Leste.

Most countries in South Asia will have their largest number of working-age people between 2045 and 2050. India, for example, will see the maximum number in 2050, when the population aged 15–64 is expected to be larger than 1 billion. Afghanistan and Pakistan are relatively young, while Iran and Sri Lanka are ahead in the transition and have growing elderly populations. In the Oceania, the share of working-age people will continue to grow until 2010, and the number beyond 2100, making it the youngest subregion in Asia-Pacific.

#### COUNTRIES ARE IN THREE STAGES OF DEMOGRAPHIC CHANGE

The patterns described here define the Asia-Pacific region in three groups: countries in advanced stages of demographic transition, those nearing a peak in the working-age population with the potential to reap a demographic dividend, and those with still very young populations. The last are in the earliest phases of transition.

**The demographic opportunity will be open for South Asia and Southeast Asia until 2050**

**TABLE 2.1:**  
**Some countries have passed their peak in working-age people, while others have decades to go**

Projected year of peak working-age population, 2010 to 2100

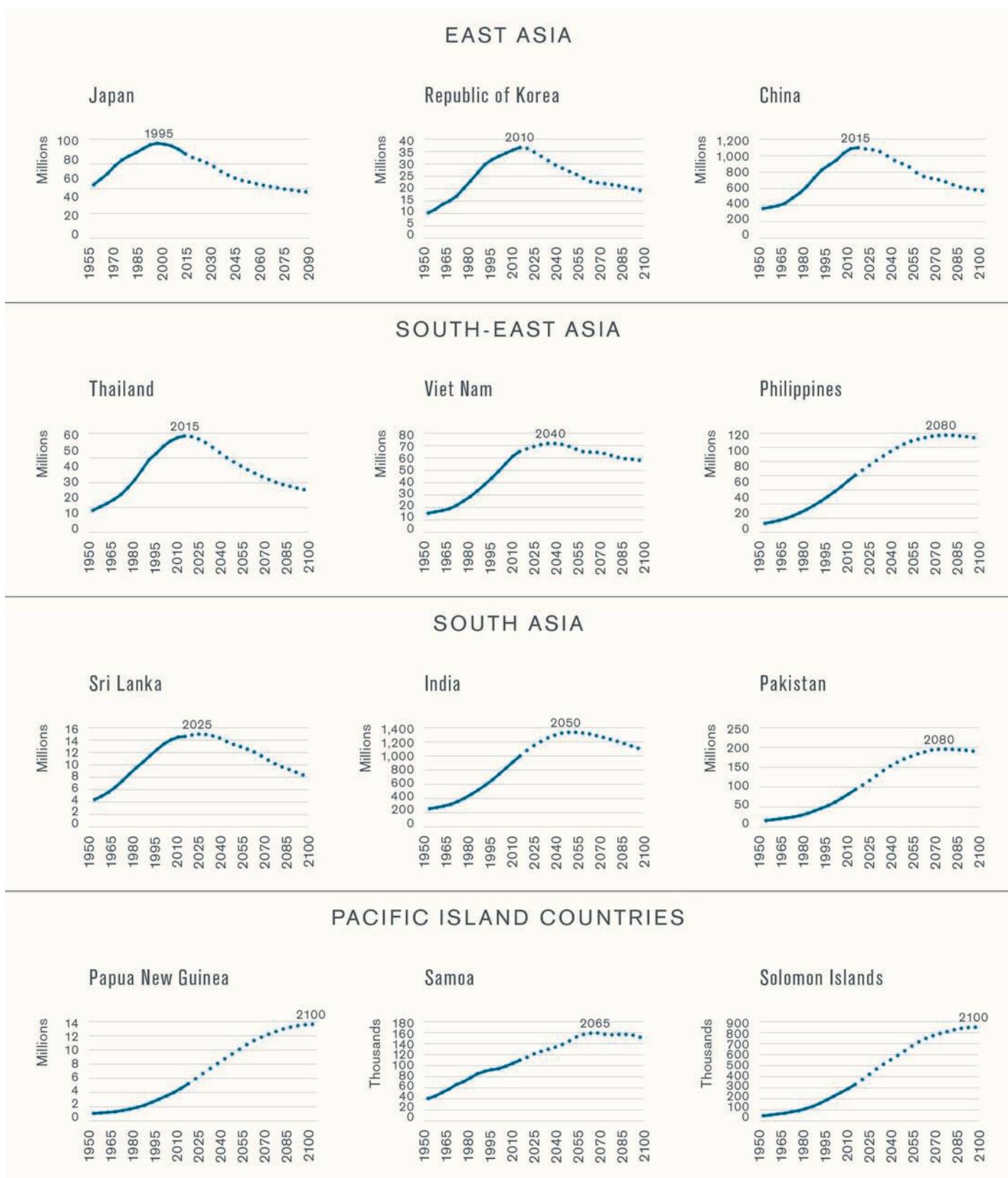
	Year of maximum share of working-age population	Year of maximum number of working-age people
<b>East Asia</b>	<b>2010</b>	<b>2015</b>
China	2010	2015
Japan	1990	1995
Democratic People's Republic of Korea	2020	2030
Republic of Korea	2010	2015
Mongolia	2010	2050
<b>South-east Asia</b>	<b>2020</b>	<b>2055</b>
Brunei Darussalam	2015	2035
Cambodia	2045	2070
Indonesia	2030	2060
Lao People's Democratic Republic	2045	2055
Malaysia	2020	2045
Myanmar	2025	2050
Philippines	2055	2080
Thailand	2010	2015
Timor-Leste	2075	2100+
Viet Nam	2015	2040
<b>South Asia</b>	<b>2040</b>	<b>2055</b>
Afghanistan	2060	2065
Bangladesh	2035	2045
Bhutan	2035	2040
India	2040	2050
Iran (Islamic Republic of)	2035	2035
Maldives	2035	2045
Nepal	2045	2050
Pakistan	2070	2080
Sri Lanka	2005	2025
<b>Oceania</b>	<b>2010</b>	<b>2100+</b>
Australia	2010	2100+
Fiji	2010	2035
Kiribati	2070	2100+
Micronesia (Federated States of)	2050	2050
New Zealand	2010	2070
Papua New Guinea	2060	2100+
Samoa	2060	2070
Solomon Islands	2060	2100+
Tonga	2060	2090
Vanuatu	2045	2100+

Source: Based on UN DESA 2015a.

## FIGURE 2.3:

**Peaks within subregions show some convergence, but with marked exceptions**

Working-age population (15-64) for selected countries in Asia-Pacific, in thousands



Countries most advanced in the transition include those that have reached their peak shares of the working-age population by 2015, although some of them are still to reach their peak numbers. China, Japan, the Republic of Korea and Thailand have passed both their peak shares and numbers, and are going to experience shrinking workforces in the coming decades. Several other countries will reach their maximum numbers of working-age people soon after 2030, including Brunei Darussalam, Fiji, Sri Lanka and Viet Nam. For the remaining countries, the working-age population will still grow but modestly (Table 2.2).

Countries nearing their peaks between 2015 and 2055 are mostly from South-east Asia and South Asia. They will see considerable growth in the size of the working-age population until 2030. For example, in Lao People's Democratic Republic, Nepal and Cambodia, the working-age populations will increase by 33 percent, 28 percent and 25 percent, respectively. These countries will need to prepare for employment growth for large numbers of job market entrants.

### Different population patterns have implications for the labour supply and migration within the region

Countries with the youngest populations, in the third category, are further behind in their demographic transitions and will continue to experience substantial growth in working-age populations beyond 2050. Relatively young countries include Afghanistan, Pakistan, the Philippines and many of the Pacific island countries where fertility rates are still high.

Different population patterns have implications for migration within the region, which is already considerable. Countries such as Brunei Darussalam, Japan, Malaysia and Singapore are now pulling in large numbers of young people from South-east and South Asian countries to provide low and semi-skilled labour. Given that the region as a whole is ageing rapidly, there may eventually be potential for migration from younger countries outside the region, such as those in Africa.

**TABLE 2.2:**  
**Changes in the sizes of working-age populations between 2015-2030 and 2030-2050**

	2015-2030 % change	2030-2050 % change
<b>Countries in advanced stages of demographic transition</b>		
Australia	11	14
Brunei Darussalam	13	-4
China	-4	-17
Fiji	5	-3
Japan	-10	-20
Republic of Korea	-10	-18
Mongolia	17	9
New Zealand	5	7
Singapore	1	-10
Sri Lanka	2	-11
Thailand	-7	-21
Viet Nam	8	-2
<b>Countries with a short window until reaching peak working-age populations</b>		
Bhutan	20	0
Bangladesh	23	5
Cambodia	25	18
India	20	11
Indonesia	16	6
Iran (Islamic Republic of)	14	-9
Democratic People's Republic of Korea	5	-4
Lao People's Democratic Republic	33	26
Malaysia	17	9
Maldives	25	6
Micronesia (Federated States of)	14	22
Myanmar	15	3
Nepal	28	12
Vanuatu	40	38
<b>Countries with still young populations</b>		
Afghanistan	58	41
Kiribati	27	30
Pakistan	37	32
Papua New Guinea	40	36
Philippines	26	23
Samoa	14	15
Solomon Islands	42	35
Timor-Leste	43	52
Tonga	23	17

Source: Based on UN DESA 2015a.

# A DEMOGRAPHIC RETURN FOR HUMAN DEVELOPMENT: FOUR PATHS

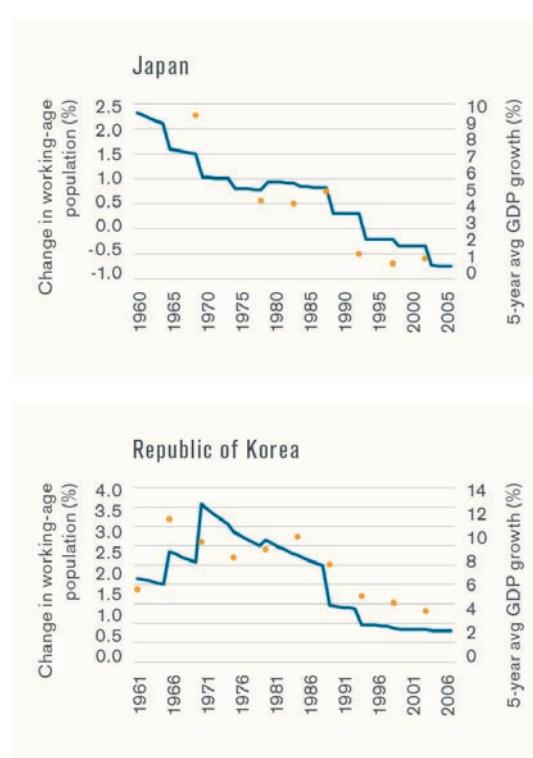
With an historic number of people entering the labour force in Asia-Pacific, opportunities to reap a demographic dividend and advance human development will emerge, but vary by country. Common elements facilitating a dividend, however, comprise creating enough decent jobs for an expanded workforce; unleashing the productivity of workers, including through investing in the right education and skills training; and channelling higher rates of savings into productive investments. All of these both contribute to and depend on progress in human development.

## GROWTH ON THE BACK OF JOB CREATION

Some countries in the region have already seen a growing labour force translate into economic growth that can be translated into human development gains. This has been the case in Japan and the Republic of Korea (Figure 2.4). In Japan, the growth of the working-age population was highest during the 1960s. GDP growth rates were also high, averaging 9 percent in the 1960s and 4.5 percent in the 1970s. As the expansion of the working-age population slowed, so did GDP increases. A similar relationship has occurred in the Republic of Korea.

But this connection does not hold for all countries, because many factors besides demographic change influence economic growth. If economies are unable to create enough jobs, for example, there are high risks of unemployment. In China, the number of jobs grew from 628 million to 772 million between 1991 and 2013, an increase of 144 million, but the working-age population increased by 241 million. In India, the size of the working-age population increased by 300 million during the same time, while the number of employed people increased by only 140 million—the economy absorbed less than half the new entrants into the labour market. A wider gap in India than China suggests a more limited capacity to generate employment—a serious challenge given the continued expansion

**FIGURE 2.4:**  
**GDP growth moves with changes in working-age populations**



Source: Based on UN DESA 2015a and World Bank 2015a.

of the workforce in India over the next 35 years (Figure 2.5).

Many countries in Asia-Pacific with large populations of youth and working-age people are already facing a struggle to provide more jobs. Although unemployment rates are fairly low, at a regional average of 4 percent compared to a global average of 6 percent, underemployment is pervasive. Underemployment occurs when people are involuntarily working less than full time and/or have higher skills than required for a job. It can arise from the underutilization of labour due to overstaffing or when the ratio of capital to labour is low, resulting in low productivity.<sup>2</sup>

In Asia-Pacific countries, some degree of underemployment is due to having too many workers for available jobs, which pushes wages down, and leads to overstaffing as well as low levels of efficiency and productivity. In other cases, people cannot find full-time employment. In the Philippines, for example, where the national unemployment rate stands at 6.4 percent, the underemployment rate is 17.8 percent<sup>3</sup> and has

Widespread underemployment limits Asia-Pacific's ability to fully realize the benefits of demographic transition

**FIGURE 2.5:**  
**China is ahead of India in generating employment for a growing workforce**



Source: Based on UN DESA 2015a and ILO 2015a.

Low female labour force participation rates in South Asia will undermine potential dividends

worsened in recent years. In Samoa, an estimated 60 percent of people cannot find employment that matches their level of education. Many take up low-skilled, low-paid jobs, especially those who are poor and lower-middle class, as they cannot afford to be unemployed. This is a loss for individual workers, the economy at large and prospects for a demographic dividend.

#### COUNTRIES CAN REAP A LARGER DIVIDEND WHEN MORE WOMEN PARTICIPATE IN THE LABOUR MARKET

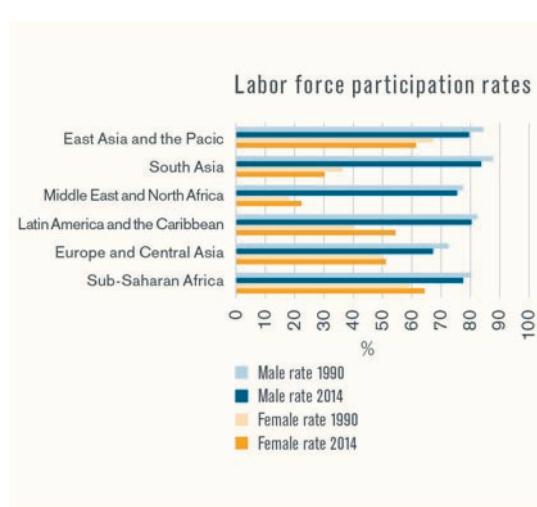
Another factor limiting Asia-Pacific's ability to fully realize the demographic dividend is low female labour force participation. While East Asia and the Pacific has one of the highest rates of women in the workforce in the world, the gender gap is particularly wide for South Asia,

comparable to that of the Middle East and North Africa (Figure 2.6). The rate declined between 1990 and 2013 in Asia-Pacific, whereas it improved elsewhere in the world. Part of the reason for the decline could be that women's labour force participation tends to fall during intensifying urbanization and shifts away from agricultural employment, where women's work is often concentrated, particularly at low income levels. At higher income levels, women's labour force participation rate tends to pick up again.

Particularly high gender gaps occur in Afghanistan, where the female labour force participation rate is only 16 percent, compared to 79 percent for men (Figure 2.7). In India, the rate for women is only 27 percent, but 80 percent for men. Samoa and Timor-Leste also rank amongst the lowest in women's workforce participation. Social and religious factors still shut large portions of women out of the labour market, confining them to work at home or in informal occupations (Box 2.1).

The economic cost of women's low labour force participation is high. For Asia-Pacific as a region, it drains somewhere between \$42 and \$46 billion from GDP annually.<sup>4</sup> By contrast, countries that have increased women's labour force participation have benefitted tremendously. For example, in the United States, the share of women in total employment rose from 37 percent

**FIGURE 2.6:**  
**Women in some parts of Asia-Pacific are far less likely than men to be in the workforce**



Source: Based on World Bank 2015a.

## BOX 2.1:

### Women bear a larger burden of unpaid work

Even beyond the labour market, women's unpaid domestic care work has major implications for human development, as noted in the 2015 global Human Development Report. Women are typically the major providers of family and household work, with significant implications for the well-being of children and older people. While the monetary contribution of this is not calculated in national accounts, research and national surveys indicate that the value comprises 20 percent to 60 percent of GDP across countries.

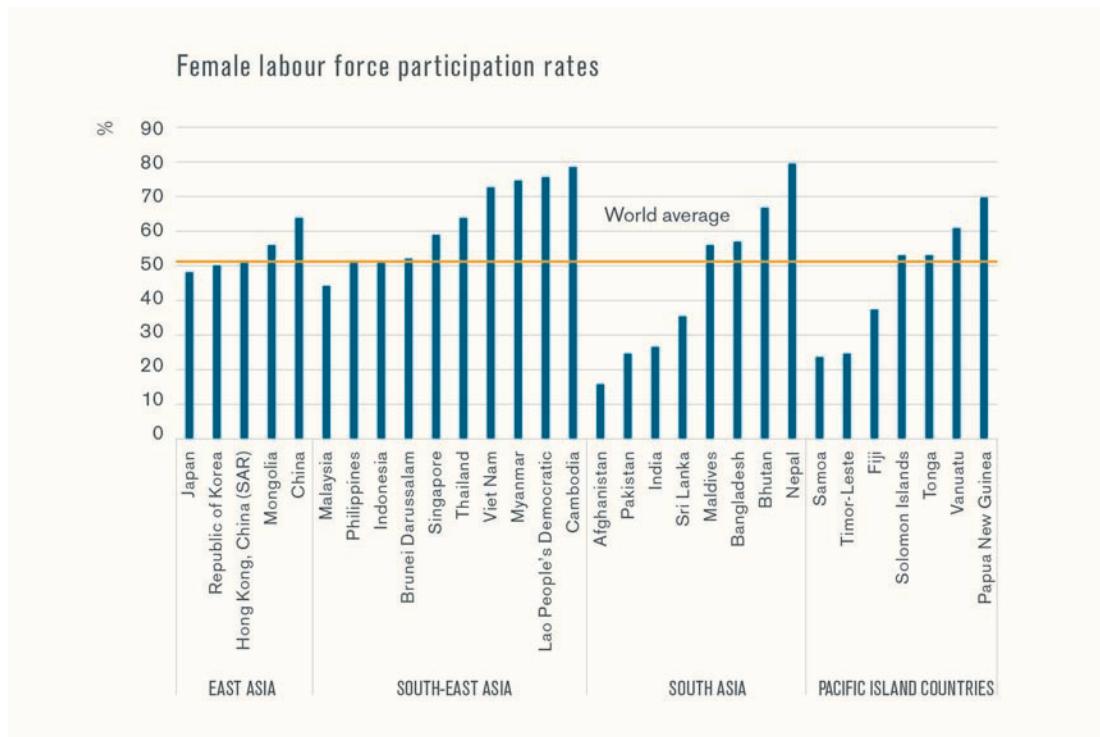
The burden of household work is not equally shared between men and women. National surveys indicate that women spend 2 to 10 times more time in unpaid work compared to men; in Cambodia and Pakistan, for example, they spend 9 times more time. Even where women complete similar levels of education as men, they may be deprived of opportunities to work outside the home because of family responsibilities. The result is a loss for women as

individuals, since they end up with more limited chances to exercise their rights and independence, including through earning their own income. By reducing the workforce, it also detracts from the significant investments that many countries have now made in girls' education.

One key barrier to the greater participation of women in the workforce is the unavailability of reliable and affordable childcare services. These have yet to be developed in most countries, so families depend on mothers or grandparents for nurturing infants and children. Some private companies have started to provide day-care facilities for their female employees, but these are very few. Increased support from governments is needed to develop services, including through policies that can incentivize private provision. Maternal and paternal leave policies can also do much to allow mothers and fathers to better manage family and work responsibilities.

Sources: UNDP 2015a, Charmes 2015.

**FIGURE 2.7:**  
**There is significant potential to increase women's labour force participation in South Asia and the Pacific island countries**



Source: Based on UN DESA 2015a.

in 1970 to nearly 48 percent in 2009, adding 38 million workers, without whom the US economy would be 25 percent smaller today.<sup>5</sup> East Asian countries that benefitted from demographic changes in the last three to four decades have similarly done so with high female labour force participation rates. If other Asia-Pacific countries desire to convert demographic transition into dividends, they will need to encourage more women to work.

#### MORE PRODUCTIVE WORKERS CAN MULTIPLY OUTPUT

Throughout Asia-Pacific, a fall in fertility during 1970 to 2010 was accompanied by a rise in spending on health, education and other human capital investments essential to a productive workforce (Table 2.3). In East Asia, the fertility rate dropped by almost two-thirds, while human capital spending per child rose by 1.28 percent per year. In South-east and South Asia, fertility declined by more than half, while investment per child rose by 1.31 to 1.44 percent per year. Improved education outcomes, including reduced gender disparities, have been one result. These have been among the main drivers of more productive workforces.

Labour productivity rose rapidly and consistently across Asia-Pacific from 1990 to 2013 (Figure 2.8), with the fastest rates in East Asia, led by China. China's investments in technology were instrumental, combined with investments in education and skills training that enabled workers to perform more sophisticated jobs.

South Asia, South-east Asia and the Pacific also experienced consistent rises in labour productivity.

Increases in education and labour quality, however, have not been consistently met by growth in higher skilled jobs. The lack of these is a pressing issue, since it means the skills of many workers are wasted. Others migrate and seek jobs elsewhere, a brain drain that undercuts any potential demographic dividend. A critical element of maximizing labour productivity is investing in education, but equally ensuring that the growing number of working-age people find employment they are qualified to do.

Many jobs in Asia-Pacific remain concentrated in agriculture or entail unskilled labour. In global terms, agriculture in the region is second in size only to that of sub-Saharan Africa. It absorbs nearly half the labour force in South Asia (Figure 2.9). In South-east Asia, agricultural employment is largest in Lao People's Democratic Republic, at 85 percent of total employment.

Manufacturing could provide more skilled and higher paying jobs, but its share of the economy in most countries is small, except for China, Indonesia, Malaysia and Thailand. High-skilled manufacturing jobs, such as in the assembly of computers, electronics and cars, are growing in a few countries. In many others, rising labour costs have begun to depress the supply of basic assembly line jobs.

While service sector employment is substantial, jobs are mainly in traditional areas such as restaurants, personal services, public adminis-

**TABLE 2.3:**  
**Falling fertility has led to more spending on education and health**

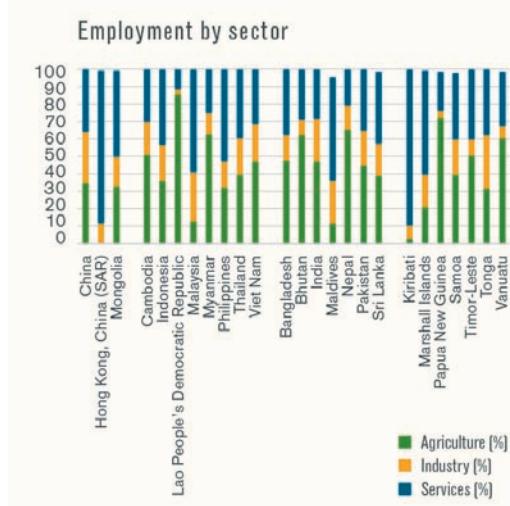
	Total fertility rate		Growth in health, education, and other human capital spending due to total fertility rate (%)
	1970	2010	1970-2010
Developing Asia-Pacific	6.3	3.1	1.28
East Asia	5.9	2.0	1.96
South-east Asia	6.1	2.9	1.31
Pacific	6.5	3.8	0.98
South Asia	6.5	3.0	1.37
Developed Asia-Pacific	3.7	1.7	1.44

**FIGURE 2.8:**  
Growth in labour productivity has been rapid



Source: Based on ILO 2015a.

**FIGURE 2.9:**  
Many jobs remain in agriculture, while the share in manufacturing lags



Source: Based on ILO 2015a.

tration, real estate, transport, and wholesale and retail trade. Modern service sectors, including finance, business consulting, IT and research, have yet to take off, although the IT sector in India has expanded rapidly, while the Philippines attracts a huge number of outsourced telecommunication services. Except for in China; Hong Kong, China (SAR); the Republic of Korea and Singapore, the productivity of the service sector is around 30 percent, lower than that of OECD countries.<sup>6</sup>

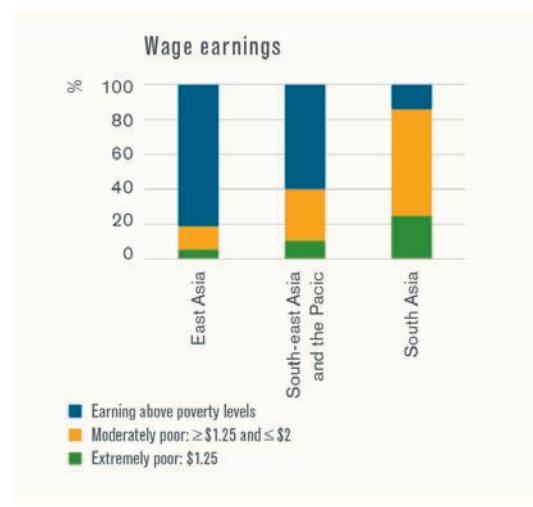
The prevalence of low-skilled jobs explains

low wages in the region (Figure 2.10). Twenty-four percent of working people in South Asia earn less than \$1.25 a day, while 61 percent earn less than \$2 a day—meaning they are trapped in dire poverty even as they are working. In Afghanistan, Bangladesh, India, Nepal and Pakistan, more than 80 percent of working people earn less than \$4 daily. The size of the middle class, or workers earning from \$4 to \$13 a day, is growing in Bhutan, Maldives and Sri Lanka, but is still small in other parts of South Asia. A growing middle class adds an extra boost to growth and human development.

In South-east Asia and the Pacific, 11 percent of working people take home less than \$1.25 a day, while another 32 percent earn less than \$2 a day. Even where most people live above the poverty line, many workers hover near it, earning between \$2 and \$4 a day. Fifty percent of workers fall into this category in Cambodia, Indonesia, Lao People's Democratic Republic, Marshall Islands, Myanmar, Papua New Guinea, Timor-Leste and Viet Nam. They are highly vulnerable to shocks and could easily fall back into poverty.

East Asia is better off, mainly due to progress in China in creating better-paid jobs. The middle class there has grown rapidly; more than 40 percent of working people now earn between

**FIGURE 2.10:**  
Low-skilled jobs lead to low wages  
and poverty traps



Source: Based on ILO 2015a.

\$4 and \$13 a day. Poverty fell from 80 percent in 1993 to 28 percent in 2008.

### HIGHER SAVINGS CAN BE AN IMPORTANT MEANS FOR DEVELOPMENT

About half of the demographic dividend in East Asia comes from savings and capital accumulation.<sup>7</sup> Growth in the savings rate is closely aligned with growth in the share of the working-age population (Figure 2.11). In East Asia during 1982 to 2012, the proportion of the working-age population increased from 62 percent to 72 percent, while the savings rate rose from 32 percent to 42 percent. Most of this growth was driven by China, which in 2010 had one of the highest savings rates in the world, at 52 percent.

When more people work and have fewer dependents, and know that they may live longer in retirement, they tend to save more. One additional driver of high savings in Asia is the lack of sufficient pension systems. Today, the region has savings rates higher than all other regions of the world. Savings rates in Singapore at 52 percent and in the Islamic Republic of Iran at 41 percent, for instance, are far above the global average of 22 percent.

Currently, a large share of savings ends up in non-monetary assets such as gold, silver or cash, however, since a significant number of people in the region still do not have bank accounts.

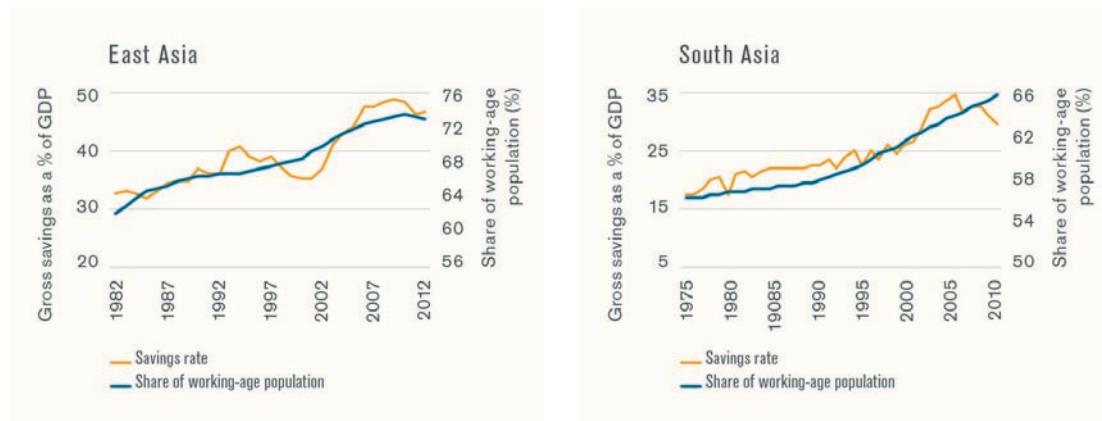
Other constraints include the lack of diverse financial instruments and effective financial systems to attract domestic investors.

Beyond individual savings, demographic transition can allow governments to save too, including through reduced spending on social services related to children and older people, and the potential for greater taxation through a larger workforce. Accumulated savings can be channelled in a number of ways that can contribute to human development, such as business growth that creates decent work. They could help close massive infrastructure gaps—needs in East Asia in transportation, telecommunications, energy and water are estimated to be the largest in the world at \$300 billion per year for the next 20 years.<sup>8</sup> In some cases, expanded infrastructure can achieve multiple goods, such as higher quality of life through cleaner energy that reduces air pollution.

Achieving greater public savings may call for increasing tax revenues where collection is still limited. This depends on efficient collection systems as well as achieving a reasonable tax-to-GDP ratio. Currently, the ratio is low for a number of countries in South Asia, compared to those in East Asia. It is 9 percent in Bangladesh, lagging China at 19 percent and the Republic of Korea at 15 percent, for example.<sup>9</sup> Tax collection will rise in part if more work is created in the formal economy, rather than the hard-to-tax informal one.

### Lack of financial inclusion limits savings and investment potentials

**FIGURE 2.11:**  
More workers means more savings



Source: Based on UN DESA 2015a and World Bank 2015a.

# WHAT'S BEEN LEARNED IN CHINA, JAPAN AND THAILAND?

Three countries in Asia-Pacific have already passed their labour force peak: China, Japan and Thailand. Looking at their experiences can help in understanding how having a larger working-age population can accelerate economic growth and human development. Did they make the most of their demographic dividends?

## CHINA: JOB CREATION KEY TO MAXIMIZING THE DEMOGRAPHIC DIVIDEND

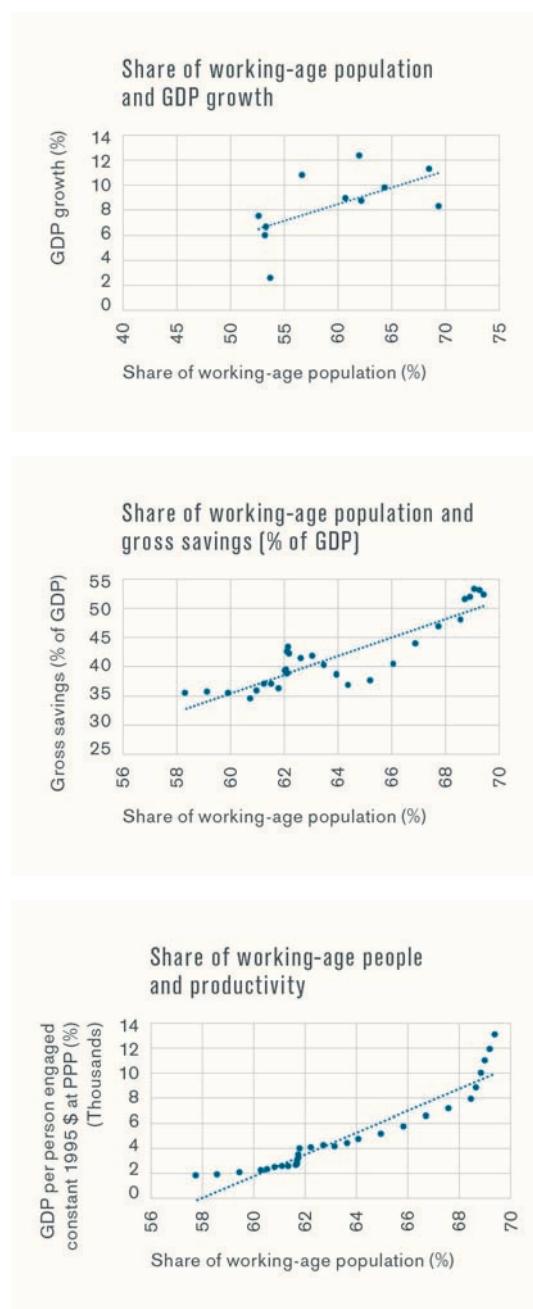
China's working-age population rose from 56 percent of the total population in 1960 to 74 percent in 2010, and increased in number from 363 million to 996 million people. During the same period, China experienced stellar economic growth rates of 6.3 percent in the 1970s, 9.4 percent in the 1980s, and 10.5 percent during the 1990s and first decade of the millennium. Many factors influenced these high rates, including the influx of people into the workforce (Figure 2.12).

**FIGURE 2.12:**  
**China's economy grew through the highly productive use of its workforce**

	Five-year average GDP growth rate	Change in numbers of working-age population (in '000)
1956-60	2.5	17942
1961-60	7.4	24871
1966-70	5.9	58888
1971-75	6.6	53804
1976-80	10.8	70944
1981-85	8.8	86900
1986-90	12.3	77885
1991-95	8.6	46455
1996-00	9.8	54813
2001-05	11.2	79429
2006-10	8.2	40275

While the working-age population peaked in 2010, China has skilfully used its era of a strong labour supply by creating large numbers of jobs and boosting economic output, realizing a large demographic dividend in the process.

Economic, trade and financial policies were instrumental in creating more jobs. Since 1978, China has implemented reforms that were pro-market and pro-employment. Liberalization of trade policies opened up the economy, and trade grew much faster than any country has ever



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Strategic  
macroeconomic,  
trade and financial  
reforms also propelled  
China's transformation

seen before. A manufacturing boom sent Chinese products to global markets, while creating a large number of jobs at home. At present, nearly 30 percent of the labour force, or about 225 million people, work in the manufacturing sector. Open market policies, including privatization and growth in labour-intensive sectors, fuelled investment and industrial expansion. Modernization of the financial sector also facilitated the growth of firms and creation of more jobs.

As the share of younger and older dependents shrunk relative to working-age people, China's savings rate rose from 36 percent of GDP in the 1980s to 47 percent in the first decade of the 21st century. This allowed increased domestic investments, including in infrastructure. Heavy spending has improved education, and gross enrolment<sup>10</sup> has risen at all levels. The greatest increase was in colleges and universities, with a tripling in enrolment between 1980 and 1997, and again from 1997 to 2006. Both political and business leaders supported this push, recognizing the need for both highly trained technicians and well-educated consumers.<sup>11</sup> In tandem, a surge in productivity occurred, rising from \$1,772 per worker in 1982 to \$13,000 in 2010, an astonishing seven-fold increase in less than 30 years. Besides the expansion of formal education, productivity grew on the back of increased use of advanced technology, on-the-job-training, growing experience, better health and rising longevity.

The Chinese boom enabled a rapid transformation in the structure of the economy, from heavy dependence on agriculture to a concentration on manufacturing and services. While economists debate the exact contribution of the increased workforce, up to one-third of China's 'economic miracle' has been attributed to the demographic dividend. Better health and labour productivity have been critical factors, along with the expanded number of people working.<sup>12</sup> Results from the Mason model described in Chapter 1, however, indicate that in China, the contribution of the demographic dividend to GDP was about 15 percent.

The Chinese experience suggests that having a large share of people working is not by itself sufficient to unleash economic growth. It must be accompanied by appropriate socioeconomic policies. Multiple factors drove China's 'growth

miracle',<sup>13</sup> but effective employment of a growing labour force in particular propelled poverty reduction and improved human development.

### JAPAN: HIGHER INVESTMENTS IN EDUCATION AND PRODUCTIVITY

Japan endured significant human and economic losses during World War II, but then transformed itself from a war-torn nation to a resilient, high-income economy in a few decades. GDP growth began to accelerate from the 1960s and continued until the 1980s as Japan's economic miracle unfolded. Rapid progress came from an expanded labour supply as well as the reform of the education system, sound fiscal and monetary policies, high savings and investment rates, and increased labour productivity.

The share of working-age people hovered between 60 percent and 65 percent from the late 1960s to the mid-1990s (Figure 2.13). During the 1960s, the country's 10-year average growth rate was 9.3 percent, tapering off to below 5 percent after the 1990s, around the time the labour supply began to decline. To sustain high levels of production, younger rural workers were given incentives to move to cities—Tokyo's working population increased by 1 million during 1955–1965. This growing urban population enabled Japan to sustain high economic growth rates.<sup>14</sup>

Gains in efficiency and productivity were critical drivers of growth, and accompanied the spike in the workforce. This advantage stemmed in large part from a heavy investment in education after the Second World War. During the 1950s and 1960s, major reforms increased the number of years the average worker spent in school,<sup>15</sup> particularly those working outside agriculture. As income rose, investment in nutrition, vaccination and other health-related issues soared. The average life span grew substantially, from 60 years for males and 63 years for females in 1950 to over 80 for males and 87 for females in 2013.<sup>16</sup>

A high investment ratio, the introduction of foreign technology and "improved and clever engineering" further boosted the surge in productivity. From around 1945 to the end of the 1960s, investment ranged from 35 percent to 40 percent of GDP, ensuring the rehabilitation of severely damaged infrastructure and enhanc-

**FIGURE 2.13:**  
Japan is past its working-age peak, but has successfully utilized its demographic dividend

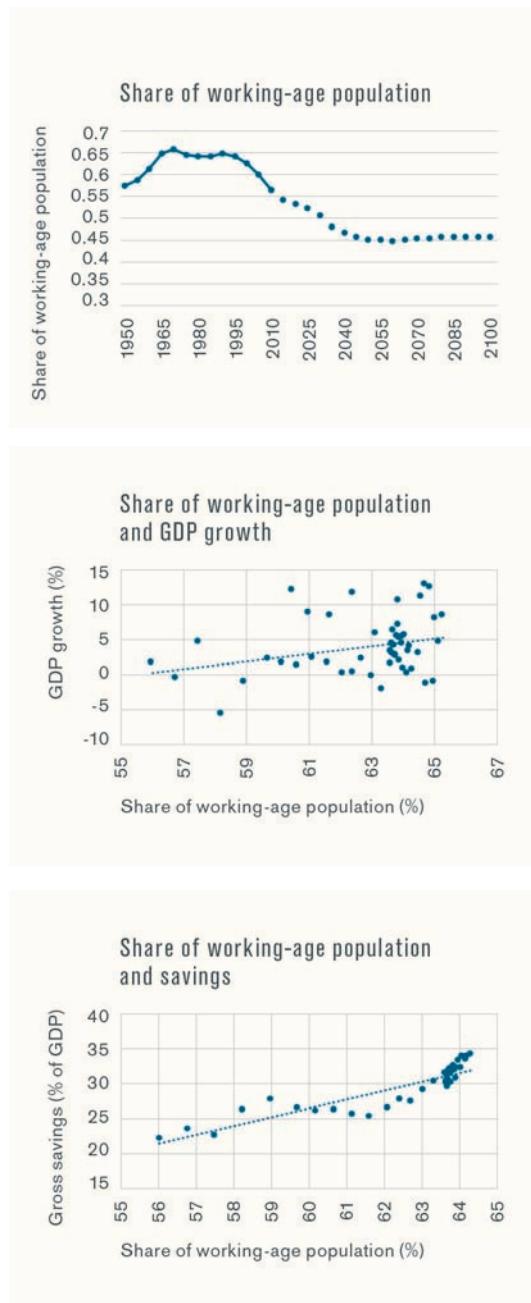
	Five-year average GDP growth rate	Change in the size of the working-age population (in '000)
1956-1960	9.38	4769
1961-1965	9.21	6442
1966-1970	4.6	4850
1971-1975	4.39	3180
1976-1980	4.28	2863
1981-1985	5.23	2746
1986-1990	1.42	2104
1991-1995	0.85	612
1996-2000	1.2	-1145
2001-2005	0.39	-2261
2006-2010	0.97	-4449

Source: Based on UN DESA 2015a, World Bank 2015a and ILO 2015a.

ing competitiveness.<sup>17</sup> Foreign technology was actively absorbed in key industries, including strip mills in steelmaking, electric welding in shipbuilding, and technologies for chemical fertilizers and heavy electric machinery. New industries to manufacture automobiles, synthetic fibres and consumer electronics also brought in new technology that promoted growth.

Government policies actively backed business development. The Business Rationalization Promotion Act of 1952, for instance, provided a special depreciation scheme for modernizing equipment in key industries. Government financial institutions, such as the Japan Development Bank, the ExIm Bank, and the Medium and Small Business Credit Corporation introduced long-term credit to support businesses.<sup>18</sup> A healthy savings rate of 30 percent of GDP, the highest among OECD countries in the 1960s, spurred the growth of the economy.

Since the 1990s, Japan's labour supply and productivity have fallen. The 1990s became known as the 'lost decade', a period of low growth rates, high unemployment, bad debt and falling investments. The savings rate dropped drastically as the country began to age, declining from around 32 percent of GDP during 1977 to 25 percent from 2000 to 2012, and contracting even as Japan's growth rates picked up again in the early years of the 21st century, and labour



participation rates increased. The latter were boosted by more women working and more people staying in the workforce beyond retirement age—over half the population aged 65-70 is still working.

Japan's transition to an ageing society raises issues relating to strains on public budgets, labour shortages, and the funding of social security and health care. Nevertheless, the fact that the economy is highly advanced has enabled the

Investments in skills, industrialization and technology catalysed Japan's growth miracle

**Large-scale government advocacy campaigns on family planning stressed prospects for faster economic growth and a better quality of life**

country to better prepare for an era of ageing. The economy continues to grow on the basis of technology improvements, productivity growth, trade and foreign direct investment, and by continuing to bring healthy adult workers and more women to the workforce.<sup>19</sup>

#### THAILAND: PROACTIVE FAMILY PLANNING TRIGGERED DEMOGRAPHIC CHANGE

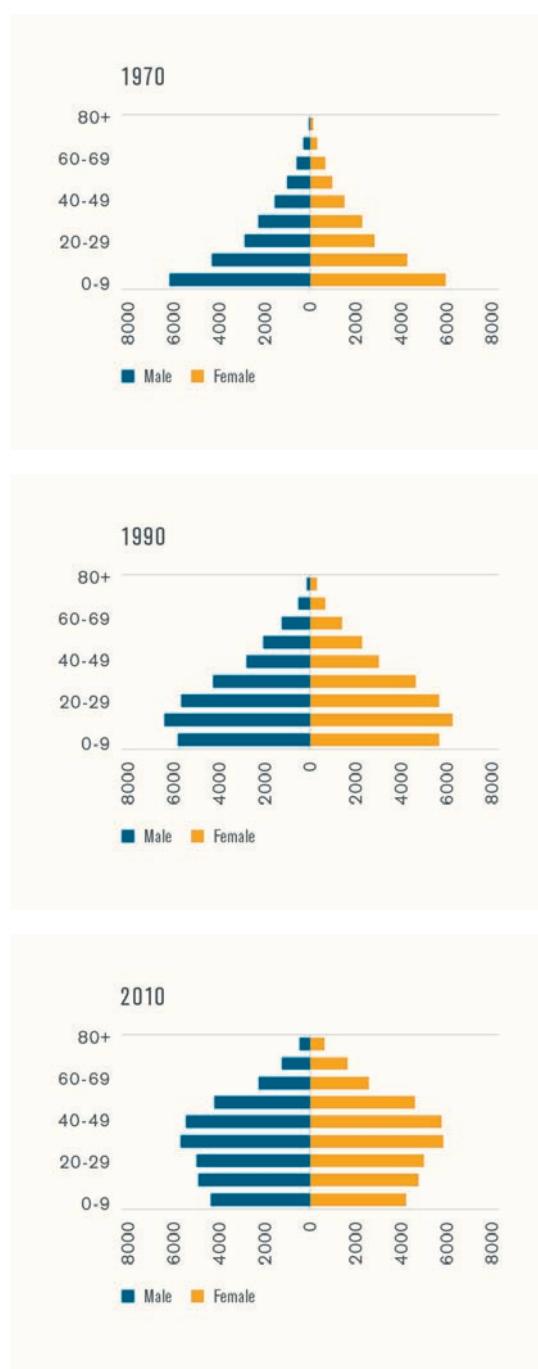
Among South-east Asian countries, Thailand has reached the most advanced stage of the demographic transition. Its share of working-age people peaked in 2010 at 68 percent, and the number is expected to crest in 2015. By 2050, the share is predicted to fall to 50 percent.

Thailand proactively planned its demographic transition, launching large-scale advocacy for voluntary family planning that stressed faster economic growth and a better quality of life. From 1970 to 1990, Thailand's total fertility rate fell from 5.5 to 2.2, the fastest decline in South-east Asia, and particularly remarkable since about half of Thai people still live in rural areas where rates tend to be higher. A rapid expansion in the share of people aged 20–60 took place during 1970 to 2010 (Figure 2.14).

Between 1970 and 2010, as Thailand's working-age population increased from 53 percent of the total population to 68 percent, GDP growth rates were consistently high—just above 7 percent during the 1970s through the 1990s, and around 5 percent during 2000–2010 (excluding the crisis years of 1997–1998 and 2008).<sup>20</sup> During this time, Thailand transformed its economy from a low-income to an upper-middle-income one, and significantly reduced poverty. From 1960 to 2000, poverty rates fell from 60 percent to 10 percent. Per capita income increased from \$100 in 1960 to about \$5,800 in 2014, making Thailand the fourth richest country in South-east Asia, after Singapore, Brunei Darussalam and Malaysia.

In transitioning from a primarily agrarian to a service-based economy, improvements in transportation and telecommunication proved critical, enabling rural farmers to better connect to markets. Many agricultural workers moved to urban areas and shifted to high-paying jobs in industry. Fewer children per family coupled

**FIGURE 2.14:**  
**Thailand's population shift was rapid from 1970–2010**

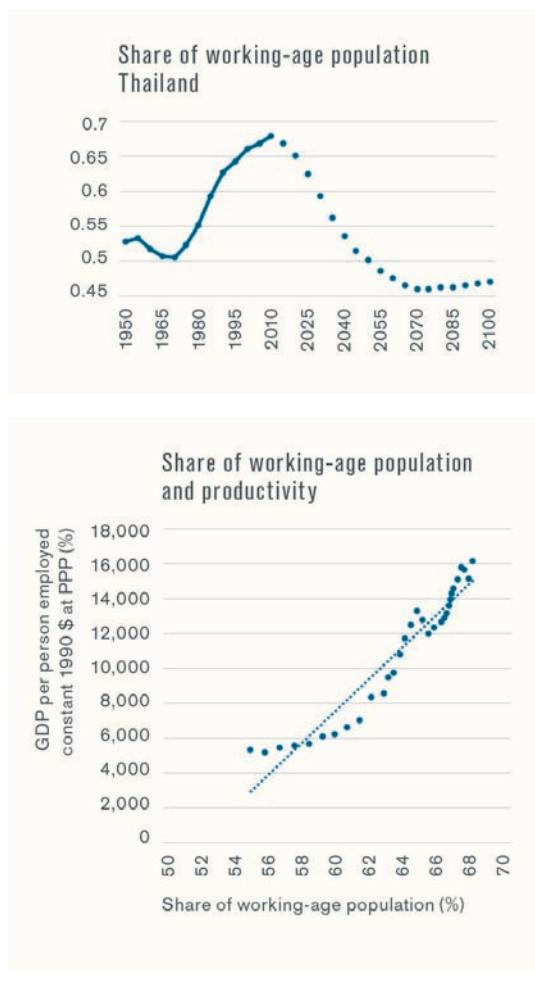


Source: Based on UN DESA 2015a.

with improvements in education supported the transition from agriculture to industry and services. At the same time productivity of Thai workers increased significantly (Figure 2.15).

An import substitution policy in the 1960s and 1970s accelerated industrialization, which

**FIGURE 2.15:**  
Thailand still has time to further capitalize on its demographic dividend



Source: Based on UN DESA 2015a, World Bank 2015a and ILO 2015a.

led to an industrial processing zone in the eastern region encouraging industries to use domestic raw materials. Since the 1980s, trade policy has shifted to export promotion, including through export-processing zones and an export/import bank to finance entrepreneurs. From the late 1980s to the 2000s, the processing of high-quality agricultural and manufactured goods was fostered, along with the development of skills demanded by the labour market. Amid intensifying global competition, Thailand was drawn into regional and bilateral free-trade agreements to expand markets and increase trading partners.

Thailand's annual economic growth rate has fluctuated considerably in recent times as the

economy has recovered from the global recession. The rate of savings, at 31 percent of GDP, has been relatively stable, however. Given that the share of the working-age population will remain over 60 percent until 2030, and that the savings rate is expected to remain high, Thailand still has considerable time left to capitalize on its demographic dividend. Sustaining momentum will largely depend on a continued supply of productive jobs, investment options making the most of savings, well-managed macroeconomic policy and political stability.

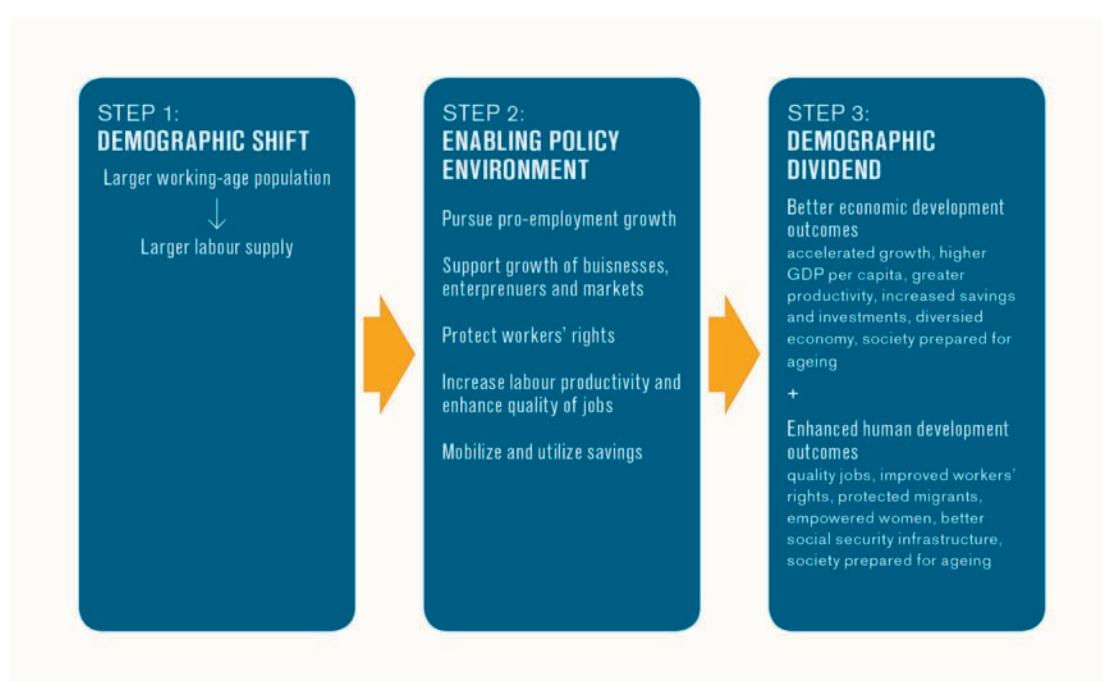
## MAKING THE MOST OF DEMOGRAPHIC OPPORTUNITIES

As the experiences from China, Japan and Thailand demonstrate, a larger, more productive working-age population can yield a demographic dividend, but not by default. An effective policy framework needs to be in place, backed by an appropriate vision, commitment, strategies and incentives. A few common lessons stand out:

- A larger working-age population can be a great asset—with strategic labour market policies. These should aim at creating decent work, promoting businesses and trade, increasing diversity in employment, and ensuring a stable macroeconomic environment so that businesses can thrive.
- Equally important is paying attention to protecting worker's rights, including by improving working conditions and the overall health and safety of workers, reaching out to informal sector workers, instituting minimum wage levels to combat working poverty, and so on.
- Countries will also need to leverage sectors and industries that can provide higher quality jobs. Many countries need to go through structural transformation, transitioning from low-productive sectors such as agriculture to those that demand higher skilled labour and provide better wages. Investments in education and skills development will be important to ensure working people are prepared for such a transition.
- A large working-age population can

An effective policy framework is critical to transform demographic opportunity into a demographic dividend

**FIGURE 2.16:**  
A policy framework to guide the demographic dividend



Creating more and better jobs, combined with good governance and macroeconomic stability, is the first step

boost savings, among individuals and in terms of public revenues. These can be channelled into business growth, expanded infrastructure and social expenditures, and more robust pension schemes. Savings need to be effectively injected into markets, however. Public budget surpluses need to be wisely invested.

Figure 2.16 charts a general three-step path for the demographic dividend to accelerate human development. The following pages consider supportive policies in four broad areas: creating more jobs, improving their quality, emphasizing workers' rights and putting savings to work. There are challenges and barriers to overcome, and new opportunities to explore.

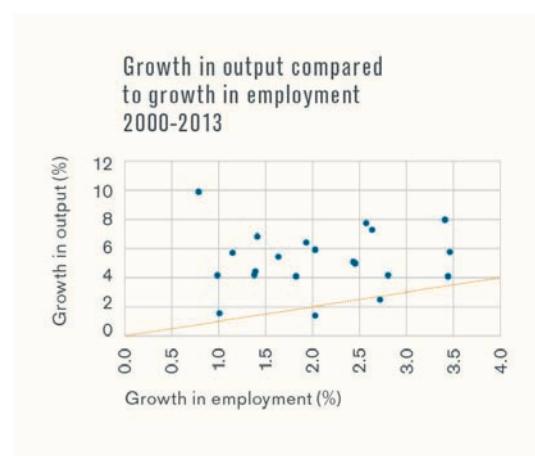
#### PURSUE PRO-EMPLOYMENT GROWTH

A first step towards capturing the demographic dividend will be for the region to ensure economic growth is creating more jobs. In 2015 and 2016 developing Asia-Pacific is projected to grow at 6.2 percent,<sup>21</sup> far above the global average. During 2000-2013, however, employment growth languished between 1 percent to 3 percent (Figure 2.17). As millions of new entrants flood the labour market in the coming

decades, many Asia-Pacific countries will face even greater challenges than they do now in terms of creating sufficient employment. More focus needs to be on specific policies that will create decent jobs and ensure the benefits of growth reach everyone.

Job growth is given impetus when countries

**FIGURE 2.17:**  
Higher growth alone has not produced more jobs



Source: Based on ILO 2015a.

make this a key aim of national development strategies. Job creation efforts should be backed by adequate resources, reinforced with timelines and targets, and the mandate should lie not only with the Ministry of Labour. Strategies need to be implemented jointly with multiple ministries and departments, including finance, labour, commerce, industrial development, manufacturing, agriculture, trade, youth and women, as well as in close coordination with the private sector. Without a well-developed action plan and clearly defined employment targets, it will be difficult for countries to make progress. Some ways to stimulate pro-employment growth are briefly described below.

**Foster growth of labour-intensive sectors.** Countries in the region need to promote sectors that create jobs. Nations with large low-income populations, big agriculture sectors and high rural-urban migration could focus on specific industries, particularly in manufacturing, that yield large numbers of low to semi-skilled jobs.<sup>22</sup> This switch has been key to high job growth in China, leading to a significant decline in poverty. In India, in contrast, the manufacturing base is still small, contributing to only 15 percent of GDP and 11 percent of employment.<sup>23</sup> Manufacturing in general drives innovation, increases productivity and helps economies transition out of a heavy dependence on agriculture. Since manufactured goods are tradable, they can also reach large markets abroad.

Service sectors such as tourism, retail trade, shipping, IT, banking and finance, and other specialized industries have historically generated more employment in the region. The growth of IT in India and telecommunications in the Philippines are excellent examples, having provided employment to large numbers of youth. Governments need to open doors for new industries that will create new opportunities for the growing population of workers, as well as build long-term development plans for specific economic sectors based on changing skill sets.

**Diversify the economy:** Concentrating economic activities in a few areas, as several countries in Asia-Pacific have done, has major implications for job creation and resilience to shocks. It means that the market demands only a few

types of skills. In Bhutan, for example, the hydropower industry accounts for more than half of GDP and three-quarters of total exports. While this creates some jobs in construction and engineering, it undercuts diversification in the job market, which is not well positioned to absorb growing numbers of Bhutanese youth. Countries reliant on extractive sectors such as oil, gas and mining similarly fall short on job creation. While Mongolia enjoyed double-digit growth during 2011-2013, spurred by extractive businesses, very few jobs were created, and youth unemployment, in particular, remains worryingly high. In Papua New Guinea, the main sources of national and export earnings are minerals and energy extraction, which yield few jobs; most labour earnings come from agriculture, forestry and fishery.

Other issues relate to vulnerability to shocks, such as a slowdown in external demand. These can be devastating to countries with only a few types of businesses, such as textiles and ready-made garment manufacturing in Bangladesh, or fisheries and tourism in Maldives. One consequence is a sudden steep rise in unemployment as workers who have lost jobs are unable to find new ones.

Unless Asia-Pacific countries diversify, through cultivating new domestic businesses and new links with external businesses, for example, they may be unable to generate enough decent employment to meet demands, over time and in the face of inevitable shocks. Several countries have done well in managing extractive sectors as well as diversifying their economies to increase jobs in alternative sectors. Experiences from Botswana, Chile, Indonesia and Malaysia demonstrate how proper management of extractive industries and a strategy to diversify can help economies transform.

**Strengthen the macroeconomic environment:** A thriving business environment depends very much on the macroeconomic environment. Businesses will start, create jobs and thrive in well-managed, stable economies, knowing property and investments are secure. This requires improved political stability, stable exchange rate regimes, controlled inflation, well-managed fiscal and monetary policies, and strong financial infrastructure, among other priorities.

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Tourism, retail trade, shipping, IT, telecommunications, banking and finance, have generated more decent employment

**Equal pay and reliable, affordable childcare will open opportunities for more women in paid employment**

Governments need to focus on strategies that will strengthen business confidence and support private sector growth that will in turn advance job growth.

Without a stable macroeconomic environment and good governance, corruption knocks a significant percentage off growth, while weak rule of law opens the door to instability, insecurity and uncertainty. Political turmoil and road closures (hartals) as in Bangladesh, or street demonstrations, as recently seen in Thailand, pose significant challenges to business operations. When production is halted due to a lack of stability, countries lose their competitive edge, and domestic and foreign direct investment is diverted to other markets, with jobs vanishing in the process.

**Increase labour force participation of women:** Labour force participation of women remains a major challenge in the region. A large number of female workers remain outside paid employment due to family responsibilities. While the contribution of unpaid work at home is significant, it should be more equally shared, and women should also have equal opportunities to pursue paid employment. Bringing more educated women to the workforce could deliver a boost

to productivity. In 2012, 47 percent of students enrolled in tertiary education were women. Yet many female college graduates never join the workforce, a tendency that will prevent the region from reaping a full demographic dividend.

Countries in East Asia that achieved a higher dividend had a higher proportion of women in the labour market. For example, China's female labour force participation rate at 64 percent is far above the world average of 51 percent. Some countries have taken proactive steps to boost women's employment, such as Japan, which by 2020 aims to have women in 30 percent of leadership positions in the government. The Malaysian Government has announced new policies aimed at bringing more educated women to the workforce (Box 2.2). Critical policies to encourage women's employment include ensuring equal pay and rights, safety and security, reasonable parental leave, and reliable, cost-effective provision of childcare, among others.

#### **SUPPORT GROWTH OF BUSINESSES, ENTREPRENEURS AND MARKETS**

The private sector is vital for job creation. Supporting businesses and entrepreneurs to provide new opportunities entails promoting a healthy

#### **BOX 2.2: Bringing more women into the workforce in Malaysia**

Malaysia has attained gender parity in education up to the tertiary level, but there is still a significant gender gap in the workforce, where less than half of women participate. At 47 percent in 2014, the labour force participation rate is among the lowest in South-east Asia. Nearly two-thirds of mothers who choose to stay at home cite family care as the primary reason.

Non-participation poses a big loss to the economy, given that the country has invested heavily in women's education. A World Bank study in 2012 estimated that women's greater participation could provide a growth dividend of up to 0.4 percent a year. Malaysia aims to achieve high-income status by 2020, but cannot do so without bringing more women into the workforce.

'Upholding the role of women' is one of seven key

strategic areas in Malaysia's 2015 budget. The Government is partnering with private firms to ease women's participation, including by offering tax incentives and grants to companies for providing quality day-care facilities and hiring mothers. The Government recently launched Career Comeback Grants for companies who bring back women who have taken career breaks.

Initiatives to strengthen women entrepreneurs comprise the Micro Credit and Small Business Loan Scheme, Get Malaysia Business Online and the Women Exporters Development Programme. By 2016, all Malaysian companies will be required to disclose their degree of gender diversity in their annual reports. Female labour force participation is key to the 11th Malaysia Plan for 2016-2020, "Enhancing labour market operations to maximize efficiency and effectiveness."

investment climate, as well as encouraging the growth of new industries and markets. Increasing market access and widening trade networks can help expand production and stimulate greater employment.

**Nurture small and medium enterprises:** These businesses are responsible for two-thirds of total employment in Asia-Pacific.<sup>24</sup> Helping them expand in size and number will be essential to accommodating a expanding workforce and ensuring that the benefits of economic growth reach the poor. Currently, they have relatively small shares in trade, receive only limited finance and face serious obstacles to growth, however. In 2012, loans to these businesses averaged only 25 percent of bank lending in the region, with significant variation across countries.

Some countries have taken steps to facilitate lending—the central banks of Bangladesh, India, the Philippines and Sri Lanka, for example, have set mandatory lending targets. There are credit guarantee schemes in place in Kazakhstan, Thailand, Viet Nam and several Pacific island countries. In some cases, national credit bureaus provide information on finance and credit ratings, and non-bank financial services are active in offering leasing, equity investment and insurance. Experience in Hong Kong, China (SAR) shows how financial support can have transformational impacts (Box 2.3). Beyond financing, some countries help small and medium enterprises get off the ground through assistance in gaining market access, increasing productivity, using IT and formalizing their

operations, as well as by enacting concessional business regulations.<sup>25</sup>

**Empower women entrepreneurs:** While women are key decision-makers in families, their roles in businesses are often very limited. The number of female-owned and run businesses is less than half that of men's. Women tend to have greater barriers than men in starting businesses, accessing finance and owning assets. As a result, they typically own smaller businesses and operate with lower levels of capital.<sup>26</sup>

Microfinance institutions providing low-income women with small, collateral-free loans have generated a surge of entrepreneurial energy among women in many Asia-Pacific countries. The Grameen Bank in Bangladesh and the Self-Employed Women's Association of India have demonstrated that poor women are credit-worthy. In China, the Tianjin Women's Business Incubator has helped more than 10,000 women entrepreneurs to start small businesses after losing their jobs in the 2009 global financial crisis.<sup>27</sup> Together, these experiences testify to the potential of women in businesses, and how extending financial support can be leveraged into a brighter future for women, their families and their communities. Loans targeted to women not only contribute to gender empowerment, but can also translate into higher investments in health and education of children.<sup>28</sup>

At the same time, female entrepreneurship needs to move beyond microfinance. A World Bank report<sup>29</sup> shows that more women are in businesses in countries where it is easier to start a

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Helping small and medium enterprises to expand will be essential for creating more jobs

## BOX 2.3: Strong financial support helps small and medium enterprises thrive in Hong Kong, China (SAR)

In Hong Kong, China (SAR), business-friendly policies have attracted investors at home and from abroad. Small and medium enterprises are an integral part of the economy, comprising 98 percent of all businesses, and providing employment to 47 percent of the labour force.

The Government supports small and medium enterprises with a wide variety of funding mechanisms, including the SME Loan Guarantee Scheme and

the SME Export Marketing Fund. The SME Development Fund provides start-up capital and helps enterprises expand in external markets. A resource centre, Support and Consultation for SMEs (SUCCESS), offers legal and business-related advice. Other encouraging factors include preferential market access to mainland China and elsewhere, excellent financial market infrastructure, and a transparent and well-regulated economy.

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**Essential strategies  
to boost businesses  
should incentivize  
new ventures, remove  
regulatory barriers  
and streamline  
legal processes**

business. Women's participation can be increased by removing red tape, enhancing gender-equitable property rights, facilitating broader access to credit for women and providing business management training. Laws need to be free of gender discrimination, and, as important, be implemented, including in the face of remaining discriminatory stereotypes and norms.

**Promote a business-friendly environment:** Governments can help businesses flourish by enacting and implementing policies that lower costs, incentivize new ventures, remove regulatory barriers and enhance the efficiency of legal processes. The cost of starting and maintaining a business in Asia-Pacific is still very high. Options to reduce it include eliminating minimum capital requirements, creating one-stop shops for paperwork, and increasing use of centralized databases and technology to manage transactions with a greater degree of transparency and accountability, among others.<sup>30</sup> This process also needs to maintain standards consistent with internationally agreed norms, such as those to protect workers and uphold environmental sustainability.

**Expand trade networks:** Asia-Pacific countries lag behind in reducing non-tariff trade barriers, which reduces competitiveness. It takes 33 days to complete an export transaction in South Asia, compared to 21 days in East Asia and 11 days in OECD high-income countries.<sup>31</sup> Goods often spend more time at borders than in transport from the source to the destination, suggesting that paperwork and customs regulations are still complex. In a world where speed, certainty and efficiency in delivery are highly valued, countries are losing opportunities to enter export markets. Many need to invest in soft infrastructure, such as customs automation and one-stop windows at border checkpoints, in addition to building better roads, railways and ports to facilitate seamless trade. Cultivating stronger trade links could be a strategic step towards increasing access to markets and growing businesses that can boost job growth. If all countries in South Asia were to improve customs efficiency to the level in East Asia and the Pacific, exports could increase by 11 percent on average for the region.<sup>32</sup>

Given Asia-Pacific's huge population, there

is large potential for regional trade expansion. Several regional connectivity initiatives are underway, such as the South Asian Subregional Economic Cooperation programme to facilitate trade and transit among Bangladesh, Bhutan, India and Nepal. Successful implementation of a motor vehicle movement agreement currently being negotiated among these countries could spur trade in local agricultural products, processed food and manufactured goods, and expand the shipping and services industries. Increased overland trade and the development of economic corridors could stimulate new enterprises, local markets, livelihoods and job growth in less-connected regions and rural areas, as well as ports and border towns, reducing economic disparities linked to geographical location.

### **PROTECT WORKERS' RIGHTS**

Some of the key priorities of the Sustainable Development Goals are to create decent jobs, eliminate poverty and minimize inequality. Since labour is the principal asset of the poor, jobs are the primary avenue for them to attain higher standards of living. A number of challenges currently stand in the way. Informal sector employment and working poverty remain prevalent in Asia-Pacific, and more people are looking outside of their home countries to find opportunities to thrive. Countries need to reach out to workers in vulnerable employment, protect them from exploitation, and uphold their rights and privileges.

**Protect workers in informal and vulnerable employment:** While a vibrant informal economy keeps a large number of low-wage workers employed, such employment leads to many problems, such as the inability to protect workers' rights. Workers in the informal sector are employed without appropriate paperwork and social security, and are highly susceptible to exploitation. They typically earn very low wages; work in poor, unsafe conditions; receive limited or no benefits; and have no job security. Labour laws are framed with only the formal sector in mind, which can lead to informal sector workers having no protections against non-payment of wages, forced overtime work, and abuse or health risks at work.

**TABLE 2.4:**  
**Shares of workers in the informal economy are still large in some countries**

Country	Year	Persons in informal employment	
		Number ('000)	Share (%)
China*	2010	36,030	33
India	2009/2010	185,876	84
Indonesia	2009	3,157	73
Pakistan	2009/2010	21,913	78
Philippines	2008	15,150	70
Sri Lanka	2009	3,184	62
Thailand	2010	9642	42
Viet Nam	2009	17,172	68

Source: ILO 2014b.

Note: The agricultural sector is not included in this data. China is represented with only a few cities, namely, Fuzhou, Guangzhou, Shanghai, Shenyang, Wuhan and Xian.

The proportion of people working in informal employment varies considerably across countries, reaching 42 percent of workers in Thailand, but 84 percent in India (Table 2.4).<sup>33</sup> One important incentive for firms to operate in the informal economy is financial—costs are lower without paying taxes and complying with formal registration and regulatory requirements. For firms to choose to operate within the formal sector, governments need to create financial incentives, such as by extending the outreach of capital and loans, particularly to micro- and small enterprises, or by providing tax breaks.

For the first time in 2015, the International Labour Organization (ILO) adopted labour standards that can protect workers in the informal economy. Countries have collectively recognized that people work in the informal sector not merely by choice, but due to a lack of opportunities in the formal sector. In the developing world, approximately 90 percent of small and medium enterprises operate informally. At the heart of the ILO standards is the idea that full, decent, productive employment needs to be created in the formal sector. While countries are working towards this goal, however, measures should be taken to uphold the rights of those still in informal employment. These include the rights to freedom of association and collective

bargaining, elimination of compulsory labour, abolition of child labour, and adherence to regulations that protect workers' health and safety.

Health-care and pension benefits in Asia-Pacific currently cover only a small portion of formal sector workers. If governments were to design social security programmes for the informal sector, there would be an enormous challenge to identify and reach people. Despite the complexities and potential costs, however, the large number of informal sector workers cannot be ignored, given the implications for economic productivity, as well as human development and human rights. Besides bringing more informal sector workers to the formal sector, it is imperative for governments to extend social protection outreach to informal sector workers. Managing outreach might build on national ID card systems, as for example, is currently underway in India.

A range of workers in Asia-Pacific struggle with extreme deprivation. These include some internally displaced people, migrants, child workers, and people in risky or menial jobs such as construction and domestic service. Many are deeply mired in poverty with very limited social protection and access to legal protection, although some countries have begun taking steps to close these gaps (Box 2.4). Nearly three in five workers, around 1.1 billion, in Asia-Pacific developing economies were in vulnerable employment in 2012, with the highest proportion in South Asia at 76 percent (Table 2.5). A major challenge remains to target and reach out to those who are most deprived.

**The rights to freedom of association and collective bargaining should be upheld, along with safety regulations**

**TABLE 2.5:**  
**Vulnerable employment is most pervasive in South Asia**

Both sexes	Both	Male	Female
World	48	47	49
Developed economies and European Union	10	11	9
East Asia	47	43	51
South-east Asia and the Pacific	60	57	64
South Asia	76	75	81
Middle East	25	24	33

Source: ILO 2014b.

## BOX 2.4: Legal aid delivers justice in Indonesia

In Indonesia, about 42 percent of the population earns below \$2 per day, making access to low-cost legal services essential for protecting their rights and privileges. In 2011, Indonesia passed a new law on legal aid with the provision that any defendant will receive legal counsel at every stage of the legal process. The objective of this law is to provide equal access to justice for all citizens. To further implement the law, in 2013 the Government launched a nationally funded legal aid system with 310 organizations accredited to deliver services.

Poor and marginalized people need legal support to obtain access to legal identification and social security programmes, secure land and property rights, stop gender-based violence, seek protection from ethnic and other forms of discrimination,

and protect their labour rights. Legal aid services provide assistance on these and many other issues. For example, a civil society organization, Women's Association for Justice and Legal Aid, reaches out to underprivileged women to raise awareness on how to deal with cases of violence, discrimination and rights relating to employment, property and marriage.

With limited access to legal services, local disputes may otherwise be resolved by village-level and religious traditional leaders, a process that can reinforce inequity or bias. Many legal aid institutions are now working to train village paralegals to provide basic legal information and referrals to legal professionals.

Source: The Asia Foundation 2014.

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### The essential rights of domestic workers should be fully protected

Women are more often in vulnerable employment than men, with one of the most risk-prone professions being domestic work. Currently, Asia provides 40 percent of domestic workers globally, comprising 21.5 million women and girls.<sup>34</sup> This is an important source of income as well as remittances, constituting 7.5 percent of female wage employment around the world. Yet workers are frequently prone to domestic abuse, violence, confinement, denial of wages and other forms of human rights violations, and lack access to legal support and state protection.

In 2011, the Domestic Workers Convention enacted by the ILO became the first treaty to protect the rights and privileges of domestic workers, ensuring they have the same basic rights as those available to other workers in their country, including weekly days off, limits to hours of work, minimum wage coverage, over-time compensation, social security, and clear information on the terms and conditions of employment.<sup>35</sup> The Philippines is among the countries that have ratified this convention. With over 2 million domestic workers at home, and millions more abroad who are sending remittances home, implementation could provide a huge boost in quality of life and human development prospects for workers and their families.<sup>36</sup>

Some of the poorest and most vulnerable

people find jobs in the construction industry. In India, for example, 1 in every 10 workers is employed there, totalling 50 million people in 2012. A study in Delhi<sup>37</sup> revealed that a majority were inter-state migrants, including large numbers from socially deprived castes and tribes who were in bonded labour. Low wages, irregular payments, a risk of accidents and long working hours were reported by workers as the most critical problems. Measures to begin correcting some of these concerns include universal registration of workers; effective implementation of existing labour laws; formal binding guidelines for contracts between employers, recruiters and workers; reform and harmonization of major labour laws applicable to the industry; and reform of social security laws to allow more effective implementation.

**Reduce exploitation of migrant workers:** Migrant workers face a host of challenges related to human rights. Those who are undocumented are most vulnerable. A large number of migrants from and within Asia-Pacific likely fall in this category. Because of their insecure legal status, they are prone to low pay, often below legal minimum wages, as well as denial of other rights, hazardous work conditions, limited job mobility and inadequate legal support.

Even before leaving home, migrant workers face risks and costs, such as from recruitment agencies charging very high fees to connect them to potential employees overseas. A Bangladeshi migrant worker, for example, may pay nearly \$4,000 for a low-skilled job in the Middle East with wages of \$200 a month, meaning the first 20 months of work go only towards the initial fee. Fraudulent recruitment practices are abundant, with consequences that include workers being stuck, without legal paperwork, in a transit country, or not being paid promised wages.<sup>38</sup>

Lack of institutional support from both sending and receiving countries results in the neglect of migrant workers. Much needs to be done to better protect them before, during and after migration. Priority measures include ensuring proper implementation of labour laws, setting and upholding minimum wages and benefits, guaranteeing access to medical care, protecting undocumented workers, enhancing transparency in migration procedures and collecting data on the status of migrants, to list a few. Countries across the region are at different stages in the formulation of policies and implementation of practices to protect migrant rights. Box 2.5 highlights progress in the Philippines.

## BOX 2.5: Protecting the rights of migrant workers in the Philippines

Migration policy in the Philippines is relatively advanced compared to other countries in Asia-Pacific, having been oriented around protecting those who choose to migrate rather than encouraging migration as a means of economic growth. Through bilateral agreements and national legislation, migration is managed from the stage of recruitment, throughout the migrants' stay and safe return home.

Remittances comprise about 10 percent of the Philippines' GDP. Overseas Filipino workers mostly go to the Gulf States (about 67 percent), but a small portion also migrate to countries within the region, including China; Hong Kong, China (SAR); and Singapore. About 80 percent are employed as service or production workers, with large numbers serving as domestic workers.

The Household Service Workers reform package

**Counter pervasive low wages and income inequality:** Wage growth has been slow in most of Asia-Pacific, except for China, and has recently stagnated compared to the level before the 2008 financial crisis. This is on top of the region's already significant degree of working poverty. Average manufacturing wages in China, India and the Philippines are well under \$2 per hour, compared to nearly \$13 in Singapore and just over \$18 in Japan. Wage workers earned only \$73 per month in Nepal in 2008, \$119 per month in Pakistan in 2013 and \$121 per month in Cambodia in 2012,<sup>39</sup> with the last two countries having the highest incidences of working poverty in the world.<sup>40</sup> At the same time, the share of labour income relative to capital earnings has declined, falling sharply in China, for example, where labour earnings were 42.4 percent of the total in 2007, down from 51.4 percent in 1995.<sup>41</sup> This trend in part explains widening inequality in many countries.

With growing awareness of pitfalls related to income disparity and non-inclusive growth, a number of countries have prioritized combating inequality in their national development agendas. As a response to the growing discontent of low-income people, China instituted

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Transparent migration procedures, minimum wages and access to medical care are critical for migrant workers

introduced in 2006 for domestic workers abroad raised the minimum age to 23, requires workers to obtain pre-departure training on the language and culture of the destination country, sets a minimum monthly salary of \$400, and facilitates training and skills development under the Technical Education and Skills Development Authority.

In 2012, the Philippines became the second country to ratify ILO Convention 189 on domestic workers, a milestone for 2.5 million Filipino overseas workers whose rights will be protected and who will be sheltered from abuse. Through the convention, working terms and conditions between employers and employees will be formalized. Workers are also being provided with information booklets to learn about their rights and how to access help when facing difficult situations.

Minimum wage policies need to be crafted without adverse impacts on employment, competitiveness or inflation

a new income distribution plan in 2013, and emphasized the importance of job creation and income distribution in its 12th five-year plan (2011–2015). The Philippines Development Plan 2011–2016 similarly stresses the need for inclusive growth, productive job creation and multidimensional poverty reduction. Papua New Guinea's Development Strategic Plan 2010–2030 charts the vision of a fair and equitable society where benefits reach all segments of the population.<sup>42</sup>

One of the key national policy instruments to tackle pervasive low wages is wage-setting, which protects the basic needs of workers and their families. It curbs poverty, and ensures a basic quality of life by eradicating hunger, providing minimum health benefits, and easing access to education and childcare, all of which positively contribute to human well-being and workers' productivity. The entire package of

a minimum wage policy needs to be carefully crafted to mitigate impacts on employment, international competitiveness and inflation.

Since 2012, more than 20 Asia-Pacific countries have revised their minimum wage policies, including China, Indonesia, Malaysia, Philippines, Thailand and Viet Nam (Box 2.6). In 2013, Malaysia's new minimum wage increased the basic salary to RM 900 per month in the Malaysian Peninsula and to RM 800 per month in Sabah and Sarawak, with the aim of supporting inclusive growth as the country plans to transition from middle-income to higher-income status. In Viet Nam, soaring inflation of 23 percent in 2008 triggered a rise in minimum wages. Since then, several increases have helped workers keep up with high prices for food, education and health care, and served as a response to strikes by factory workers in Hanoi and elsewhere.<sup>43</sup>

## BOX 2.6: Recent revisions to minimum wage packages

### CHINA USES THE MINIMUM WAGE TO REDUCE GAPS AND ENCOURAGE MOVEMENT TO CITIES

As part of its efforts to reduce wage gaps between the rich and poor, China has been paying close attention to minimum wages since 2008. City and provincial governments set the minimum wage every two years, ensuring a cost-of-living adjustment and adhering to a nationwide increase. This also supports the national plan for moving more rural workers to cities, where labour productivity and contribution to GDP is much higher. In the first quarter of 2014, minimum wages rose in the cities of Shanghai, Shenzhen, Tianjin and Beijing, with Shanghai minimum-wage earners bringing home the highest pay at \$293 per month. Shandong, Shaanxi and Chongqing provinces have also increased minimum wages recently. Local governments in places that face labour shortages will likely follow the same course.<sup>44</sup>

### THAILAND AIMS FOR INCLUSION WHILE EASING IMPACTS ON BUSINESS

In 2013, Thailand implemented a new minimum wage policy of 300 baht a day (\$10). In a time of high growth and low unemployment, the revised

policy is intended to boost worker productivity, increase consumption and drive innovation without severely aggravating unemployment. It is also part of Thailand's efforts to ensure greater equality, enhance inclusiveness and enable the country to avoid the much dreaded middle-income trap.

The policy will equate wages across all provinces, and therefore some provinces will see a significant hike. While it will protect marginalized, low-income people, costs will inevitably rise for businesses, particularly small and medium enterprises in provincial areas, and will increase the prices of Thai products in global markets. The Government is taking proactive measures to counter these impacts by curbing the corporate tax from 30 percent to 20 percent, increasing provisions for lower interest government loans and reducing rents for state-owned land used by businesses. It also anticipates that competition will increase, and in turn bolster efficiency in production, incentivize skill-building especially for low-skill workers, and support the economy in moving towards products requiring higher-skills.<sup>45</sup>

**Promote health and safety at work:** Asia-Pacific has a history of fatal injuries caused by fire, chemical exposure, building collapse and other disasters at factories leading to death in large numbers. Thirty years ago, the Bhopal gas leak took about 15,000 lives in India. More recently, in 2013, Bangladesh experienced its largest factory disaster after the collapse of a garment factory. Over 1,129 garment workers were killed, and 2,500 or more were permanently injured. In 2014, an explosion at a metal factory in eastern China killed 68 people and injured more than 150. Negligent management is a leading cause for accidents such as these, but little has been done to severely penalize, warn or otherwise instil upon firms the importance of avoiding future accidents.

Because of the abundance of low-skilled labourers, many Asia-Pacific countries are attractive locations for low-cost production. To reap excess profits, producers compromise on safety standards and labour laws, particularly where these are not well enforced, in a ‘race to the bottom’. Working can be riskiest in the least developed countries, which frequently attract the most dangerous and polluting work, and where standards and regulations have been compromised to be able to produce more cheaply.

Governments need to work closely with the international community, businesses, non-governmental organizations and employees on coordinated efforts to move towards safe, reliable and accident-free workplaces. National legislation on occupational safety and health is the first institutional step forward. Laws should cover risk assessment, hazard identification and bodies responsible for taking action. Several countries have begun to strengthen laws and compliance (Box 2.7).

#### INCREASE LABOUR PRODUCTIVITY AND ENHANCE THE QUALITY OF JOBS

While many countries in Asia-Pacific have been sources for low-cost labour, this tendency has to change for them to attain higher human development and avoid a middle-income trap. They will have to compete on the basis of higher productivity and efficiency, in part by shifting from low-wage, labour-intensive sectors to those requiring higher skills and advancing

technological penetration. Higher productivity growth will also provide quality jobs for better educated workforces, and, in ageing countries, help maintain growth rates despite shrinking labour forces.

**Stimulate structural transformation:** Productivity growth has been faster in some countries than others, tracking structural shifts from lower to higher productivity industries, and the movement of labour accordingly. China’s labour productivity has trebled since 2000, and Viet Nam’s has doubled. Substantial growth has occurred in Indonesia, Malaysia, Mongolia and Thailand. By contrast, in South Asia, structural change has lagged behind, as has growth in labour productivity.<sup>46</sup>

National circumstances are the starting point for the shift to higher productivity industries. Countries that still have a large agriculture sector must foster basic manufacturing, while introducing modern farming practices. Those producing light manufactured goods such as textiles and footwear may consider moving towards heavy manufactured goods such as electronics and machinery. There is significant potential for promoting higher skilled services sectors, such as IT and telecommunications, banking and finance, tourism and hotel management, media and advertising, and other new areas of high-end advisory and consulting services that can absorb more skilled labour. Governments will need to support entrepreneurs keen to launch innovative businesses, as well as develop strategic trade links to market products and services. Malaysia’s experience with the palm oil industry demonstrates the potential of structural transformation (Box 2.8).

**Promote skills and training:** Employability and productivity improve through skills development and vocational training relevant to labour market requirements. Some important lessons come from advanced countries such as Germany, where education and training simultaneously have improved the quality of youth employment in particular. Germany’s ratio of youth to adult unemployment rates is about one to one, which is a remarkable achievement. One important ingredient is the strong involvement of employers in education, which brings in training on skills

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Skills development and vocational training increase productivity

## BOX 2.7:

### Some safer places to work

Some countries have taken steps to better protect their workers. This is consistent with their rights. It also contributes to more efficient and productive workplaces.

#### SINGAPORE: STATE-OF-THE-ART PROTECTIONS

Singapore is renowned for state-of-the-art practices to protect workers' health and safety. Three key principles define its Work and Safety Framework. The first is to mitigate and eliminate risks before they are created, minimizing accidents. The second principle is based on the idea of creating industrial ownership by engaging people from top management to factory-level workers, and generating awareness and a sense of precaution. The third principle is to strictly penalize workplaces that are unsafe, not only those that have had accidents, but also those that have unsafe practices and are prone to accidents. Penalties and fees incentivize firms to take more proactive steps, and make a business case for investing in health and safety issues.

The Workers' Safety and Health Act came into effect in 2006 and is managed under the Ministry of Manpower. To operationalize the act, the Works and Safety Framework 2018 Strategy was developed. One of its key targets is to reduce the workplace fatality rate to less than 1.8 per 100,000 workers. Considerable progress has already been made, as the fatality rate dropped from 4.9 in 2004 to 2.2 in 2012.

Some key initiatives of the strategy are to build capabilities to better manage workplaces. The Bi-zSAFE programme, for instance, works with small and medium enterprises. It trains top managers on risk management strategies and the management of workers' health and safety, while workers are educated on how to avoid hazards.

The Ministry of Manpower ensures compliance with health and safety standards by undertaking inspections and managing legal enforcements. Approximately 6,500 inspections are carried out yearly. Violations are taken seriously; employers are warned, fined, prosecuted or their operations stopped where there are signs of imminent danger. When accidents do take place, work injury compensation is paid. In 2010, \$76.5 million was awarded in compensation for permanent disability or death.

Complementing all these efforts is an awareness campaign promoting a safe and health work culture. Award ceremonies recognize successful enterprises, and share good practices and innovative solutions. The Workers' Safety and Health Council collects, produces and shares a repository of information and guidelines to support enterprises.

#### CAMBODIA: LINKING TRADE AND LABOUR STANDARDS

The US-Cambodia Bilateral Textile Agreement includes a labour provision that explicitly refers to internationally recognized core labour standards. To ensure compliance, the agreement states: "The Government of the United States will make a Determination [every year] whether working conditions in the Cambodia textile and apparel sector substantially comply with such labour law and [international] standards." Until 2006, the United States granted export quota increases based on compliance.

To be able to export to the United States, a garment factory had to agree to ILO inspections under its Better Factories Cambodia (BFC) programme. Those complying with national and international standards gained export increases of up to 14 percent, a strong incentive to participate. After 2006, the Royal Government of Cambodia, the country's garment industry and trade unions requested that BFC continue to operate and safeguard worker's interests. BFC covers areas including child labour, discrimination, forced labour, freedom of association, collective bargaining, and national labour laws and regulations on compensation, contract and workplace relations, occupational safety and health, working hours and more.

Extensive factory-level data collected by the BFC has yielded several interesting findings. The programme led to higher compliance with standards, both in factories with reputation-sensitive buyers and in those without, although the former achieved higher compliance rates. Cambodian garment factories with higher levels of compliance had higher business survival rates.

While concerns over wage levels and working conditions are still prevalent in Cambodia, the garment sector has the lowest rate of workplace accidents. Improved industrial relations have stemmed from better occupational health and safety, and overtime policies. A boost in wages for women in the garment industry led to a jump in women's wages throughout Cambodia, both in absolute terms and relative to men's wages.

Based on the experience of the BFC programme, the ILO has launched the Better Work programme in a half dozen other countries, in each case on the invitation of the government, employers and workers' organizations.

## **BOX 2.8:** **Malaysia transforms an industry and its economy**

When Malaysia gained independence in 1957, rubber and tin comprised over half its economic base. Since the 1980s, however, it has engaged in a process of diversification, and, by the end of the 1990s, the share of manufacturing exceeded 30 percent.

Over the past two decades, average per capita income has grown at around 3.4 percent per year. The incidence of working poverty fell from 11.9 percent in 1987 to 1.3 percent in 2012,<sup>47</sup> and considerable progress has also been made in reducing vulnerable employment. Many factors account for this transformation, including the contribution of the palm oil industry.

Malaysia selected palm oil as an engine of greater agricultural productivity. Palm oil was introduced in 1875, but production did not expand until many decades later. From the early 1960s, replanting grants were offered to encourage owners of rubber plantations to switch to palm oil production. The state also acquired and developed foreign-owned oil palm estates. By 2012, Malaysia was the world's second largest producer.

While boosting production, Malaysia developed links with industries that use palm oil, such as palm oil processing, oleo-chemicals, biotechnology,

biodiesel and biomass industries. Fiscal incentives attracted investments in strategic areas related to palm oil. Higher duties were imposed on crude palm oil exports, while tax exemptions were granted to processed palm oil exports—with a view to encouraging higher value added production and export diversification. By 2012, processed palm oil exports were 2.8 times the volume of crude palm oil exports.

Starting in the 1980s, the Government decided to use some revenues from the production and export of palm oil products to support expansion in new industries, such as electronics. Through strategic interventions, Malaysia upgraded its production and export structure over time to include high technology, skill-intensive products.

The country still faces the challenge of creating sufficient decent jobs. The Government has adopted measures to broaden access to quality technical education and vocational training, and to expand the coverage of its Skills Development Fund. More fundamentally, strengthening labour market institutions and tackling barriers to formal employment could enhance links among the most dynamic sectors and the rest of the economy, helping to make growth broader and more inclusive.

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**Malaysia upgraded its production and export structure to include high technology, skill-intensive products**

highly attuned to labour markets.

A mismatch between labour skills and market needs often results from limited information and coordination. To remedy this, several countries in Asia-Pacific have launched active labour market programmes that reduce labour market failures, and promote efficiency, equity, growth and social justice.<sup>48</sup> They train young people in ways that go beyond traditional education, help young entrepreneurs launch their businesses, and guide low-skilled workers in the informal sector to find better jobs in the formal sector.

Several countries are strengthening institutional capacities to build skills that match industry and market needs. For example, the National Technical Education and Skills Development Plan 2011–2016 in the Philippines works with secondary and tertiary schooling systems, as well as specific training and apprenticeship programmes in enterprises, communities

and provincial training centres. It oversees the operations of 4,540 public and private technical and vocational schools and training centres.<sup>49</sup>

The National Skills Development Corporation, a public-private partnership in India, works to create better training capacities in a wide variety of professions. In consultation with the Ministry of Skills Development and Entrepreneurship, it provides funds, trains trainers and assists in building information systems so that private firms can strengthen staff training. It aims to train as many as 150 million people by 2022.<sup>50</sup>

**Leverage local skills through deepening global value chains.<sup>51</sup>** With the rapid growth of global value chains, more than half of East and Southeast Asia's trade now involves intermediate goods, or parts manufactured in some countries for assembly into complete products in others.

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## Financial literacy and education support savings and investment in productive sectors

Countries no longer need to produce finished goods to participate in global markets, if they can make components competitively.

While global value chains unleash new opportunities in niche markets, not all countries are taking full advantage of them. Countries in Central Asia, South Asia and the Pacific need to further deepen production networks, including by building trade links based on local labour market skills and available technology. Leveraging local expertise could spur industrialization and job creation in new areas, and enhance labour competitiveness.

### MOBILIZE AND UTILIZE SAVINGS

Savings are a powerful instrument to magnify the demographic dividend, with the right policy instruments in place. Maximizing the contribution of savings requires effective collection and mobilization, as well as a stronger environment for investment.

**Mobilize savings from all households:** The national savings rate, while high in some Asia-Pacific countries, varies considerably across the region, in part due to the fact that many people do not have access to financial institutions. In East Asia and the Pacific, 55 percent of people hold an account at a financial institution, while in South Asia, the share is only 35 percent.<sup>52</sup> This often means that the poor in particular have less cash in times of distress, making them more vulnerable to shocks, whether from economic crisis, a job loss or a health emergency. Other losses come when the financial sector is unable to use these savings for productive investments.

The most common reasons for not having a bank account include lack of money, and the expense of opening and maintaining an account.<sup>53</sup> Other barriers comprise lack of trust and regulatory obstacles, knowledge gaps, social constraints and behavioural biases.<sup>54</sup> The distance to financial institutions, especially for people in rural areas, is an important factor too.

Bank expansion in rural India from 1977 to 1990 led to an increase in poorer people saving and contributed to a 2.2 percent reduction of rural poverty.<sup>55</sup> While opening new branches in remote locations can be a costly disincentive for banks, technology can now play a big role

in boosting access. Mobile banking is picking up in South Asia, where more people are using telebanking services to deposit and transfer money, make payments, receive remittances and collect social security benefits. Kiosks in some cases allow people to convert their cash to electronic money.<sup>56</sup>

Financial literacy and education could support the extension and use of financial services. Hardly any country, except Japan, has financial education in its school curriculum. National surveys of target groups—such as youth and women—will help understand their specific needs and challenges. A national strategy for financial literacy could guide this process, but only a few Asia-Pacific countries have these, such as India, Indonesia and Japan.<sup>57</sup>

**Effectively collect and use tax revenues:** Tax revenues are expected to increase during demographic transition, given a larger working-age population, but poor tax administration remains a challenge. A majority of countries in South Asia and East Asia are unable to effectively collect taxes due to corruption, tax evasion, lack of transparent collection systems and inadequate technology, among other factors. Personal income taxes remain a small portion of total tax revenues, although there is significant potential for this to increase while the demographic window is still open. With the exception of a few countries, including Mongolia, Viet Nam and some Pacific island states, a majority of countries need to undertake major reforms to boost their capacities to generate tax revenues.

Having a wider tax base may be opportune for governments to build long-term capital, such as by investing in pension schemes and public infrastructure. Early investment in national pension systems will give the current working-age population enough time to save and support themselves when they retire, and will limit future fiscal burdens. Building infrastructure within and across national boundaries can forge economic links and foster industrial growth while achieving goals such as inclusive access and environmental sustainability. Many cities still require efficient systems for transport and energy, which contribute to economic and environmental aims as well as higher quality of life. Industrialization, innovation and development

of resilient infrastructure are joint targets in the Sustainable Development Goals.

With the demographic window open for most Asia-Pacific countries from 2015 to 2030, governments will have greater room to implement all aspects of the goals, which span that period. Addressing challenges related to poverty, inequality, human development, and environmental sustainability now will better prepare countries for the time when the demographic window closes, populations age, tax revenues shrink, and there is greater pressure on public budgets due to expenditures on health care, social security, pensions and old-age support.

**Strengthen financial services and markets:** The propensity to save in Asia-Pacific does not translate into commensurately high investments—at least at home. Asian countries are net lenders to global financial markets, in part because of their own weak financial infrastructure.

Financial markets are not diversified, and banks continue to be leading lenders to the private sector. Many countries have large numbers of state-owned banks—their share of banking assets is 75 percent in India, 50 percent in Indonesia and 35 percent in Bangladesh. These banks tend to operate with very low levels of efficiency, and corrupt lending practices can be widespread. China's experience, however, shows that state-owned banks can be reformed into highly profitable enterprises, including through injections of government capital, the off-loading of bad loans to asset management companies and the revamping of staffing to increase operational efficiency.<sup>58</sup>

The region in general needs to widen the availability of financial instruments for channelling savings into investment. An important avenue could be bond markets, which can have particular value for businesses as well as municipalities aiming to keep up with rapid urbanization and expansion of infrastructure and services. These markets are still mostly underdeveloped, aside from a few countries/territories, such as Hong Kong, China (SAR); the Republic of Korea and Singapore. Removing impediments to bond markets and institutional investors will be critical next steps. Ongoing initiatives to strengthen regional bond markets include the Asian Bond Funds Project of the

Executives' Meeting of East Asia and Pacific Central Banks and the Asian Bond Market Initiative of the Association of Southeast Asian Nations Plus Three (ASEAN+3).

When there are limited options for debt finance, an alternative is to raise funds through equity finance provided by investors. This option is still at a nascent stage in most Asia-Pacific countries, although with signs of growth as more firms and investors see the possibility of higher returns. Foreign and domestic investors in China and India are now more aware of market conditions and more disciplined, both of which influence their investment choices. Growing political stability in the region positively sways foreign investors.<sup>59</sup>

While stronger financial markets could help firms expand by providing better access to financing, and offer savers new ways to earn higher returns on their investments, effective and prudent legal and regulatory mechanisms need to be in place. These should take account of risks and benefits for businesses and economies, as well as for human well-being and environmental sustainability. The regulatory framework should be geared towards monitoring innovations in financial markets in real time, given experiences in the recent financial crisis.

Part of this process could involve engaging with banking and financial services actors to agree on minimum standards for investments and financial services that are consistent with human development. Particular instruments could be designed for economically and ecologically sound infrastructure that also delivers a plethora of decent jobs, for instance. In developing the market for public bonds, the financial services industry could work with municipalities to help them prepare for the process and establish needed capabilities, such as in risk management and project preparation.<sup>60</sup>

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Asia-Pacific needs  
effective bond  
markets to  
channel savings  
into investment

## THE COMING DEMOGRAPHIC WINDOW

Most Asia-Pacific countries today have entered or are on the verge of demographic transition. The next few decades will bring a unique opportunity to foster human development, including through the demographic dividend. But a rise in the working-age population does not guarantee this. Countries need to provide enough decent work, stimulate their economies so that growth is inclusive, and ensure people have capabilities, opportunities and freedom to progress in their lives, including through protection of their rights as workers.

Although much of the responsibility for reaping the demographic dividend lies with governments, as they can steer the process, many

more actors need to be involved. Governments will need to work with private actors to support the creation of businesses and employment, with financial institutions on productive uses of savings that contribute to human development and the Sustainable Development Goals, and with individuals and firms to build skills and productivity.

The next chapter looks at countries in Asia-Pacific that are still relatively young and at an early stage of demographic transition. If countries adequately prepare their children and youth, especially in terms of health care and education, they will effectively enlarge opportunities to capture the demographic dividend. More than ever before, youth deserve the highest priority, since the opportunities of demographic transition are historic—and may never come again.

# Chapter 3

NURTURING CHILDREN,  
UNLOCKING THE POTENTIAL OF YOUTH



# 3. NURTURING CHILDREN, UNLOCKING THE POTENTIAL OF YOUTH

One of the greatest challenges facing Asia-Pacific today is how to improve the lives and well-being of its large number of children and youth. The region has 1.7 billion young people under age 25, over half the global total, and their role in the region and the world beyond cannot be overemphasized. They are the next generation of workers, scientists, innovators, entrepreneurs and political leaders. Fully developing their potential and ensuring they have opportunities to thrive will be critical to accelerating human development and realizing the demographic dividend.

Much will depend on the expansion of capabilities and choices for children and youth at all stages along the path to adulthood (Box 3.1). From the start of life, children need care and protection to survive and establish a foundation for well-being. As they grow, they should enjoy equitable access to quality education and health care that equips them to eventually transition into a successful adulthood, including through decent employment and meaningful participation in the decisions that shape their societies. East Asia achieved an economic growth miracle and higher levels of human development in part due to strong early investments in education and health.<sup>1</sup> South and South-east Asia and the Pacific could now position themselves to follow this path.<sup>2</sup>

Not doing so poses certain risks. These arise in terms of lost potential, with impacts that could ripple through decades to come. Commitments to young people would be undercut, including those made in Agenda 2030 and the Sustainable Development Goals as well as the Convention on the Rights of the Child. The possibility of weaker social cohesion and stability is another concern, particularly for countries with a youth 'bulge' (Box 3.2). Right now, youth unemployment is high and rising—in many Asia-Pacific countries, it is two to

three times higher than the adult rate. Young people who feel directionless, with few options to change their situation, can end up venting their frustration through violent means.<sup>3</sup>

Priority investments in children and youth depend to some extent on the stage of demographic transition. For countries that have not yet embarked on transition, a concerted emphasis on early childhood survival can start the process of falling mortality and fertility rates. Countries already in or on the cusp of transition—as is the case for most in the Asia-Pacific region—need an additional strong focus on high-quality education and health care for young people. They need to plan now to ensure that enough jobs will be available as today's students become tomorrow's much larger number of workers. More openness to youth participation in civic and political affairs recognizes that youth have a right to participate, and can offer unique and valuable insights.

Right now, with the largest number of young population in its history, Asia-Pacific has a choice. It can provide more and better quality education, health, employment and participation to its young people. Or it can fail a generation—and miss a tremendous demographic opportunity.

# HOME TO MORE THAN HALF THE WORLD'S CHILDREN AND YOUTH

Globally, the number of people below the age of 25 increased from 1.33 billion in 1950 to 3.11 billion in 2015 (Figure 3.1), but the rate of expansion has declined since 1990. By 2050, the number will increase to only about 3.4 billion. Young people's share of total population rose from 53 percent in 1950 to 56 percent in 1975, slipping since to 42 percent in 2015. It is projected to decline further to 35 percent by 2050 (Figure 3.2).

Asia-Pacific today has 1.7 billion young people under age 25, with 990 million children under age 15, and 670 million youth aged 15–24. More than half the young people alive in the world can be found in the region. Its share of young people within its own population, however, is lower than all other developing regions, at 40 percent, and will likely drop to 30 percent by 2050. By 2065, since Africa's fertility rates will likely remain high, the number of young people there will exceed that of Asia-Pacific for the first time in recent history.

The number of young people has declined in Asia-Pacific since 2005. In East Asia, it has fallen since 1990, starting as early as 1955 in Japan and 1985 in the Republic of Korea. Decreases have

been well underway in the Islamic Republic of Iran, Myanmar and Viet Nam since 2000, and Bangladesh and Malaysia since 2010. South Asia will reach its peak of young people around 2025, so prioritizing the needs of children and youth are of foremost importance. Oceania is still relatively young, with positive growth of the young population projected to about 2050.

The share of young people in Asia-Pacific reached a peak of 59 percent in the early 1970s, before beginning a descent to 40 percent in 2015. Shares vary by subregion, from 48 percent in South Asia to 30 percent in East Asia, with the latter expected to fall to 23 percent by 2050.<sup>4</sup> It will then rank lowest among the world's regions, including Europe and North America. All Asia-Pacific subregions will be below the world average of 35 percent by 2050, a major policy concern, indicating a shrinking pool of workers and an ageing population (Figure 3.2).

In nine countries or territories, young people are currently less than a third of the total population—Australia; China; Hong Kong, China (SAR); Japan; Macau, China (SAR); Republic of Korea; Singapore; Taiwan Province of China and Thailand. For 14 other countries, the share tops 50 percent—Afghanistan, Cambodia, Federated States of Micronesia, Kiribati, Lao People's Democratic Republic, Nepal, Pakistan, Papua New Guinea, Philippines, Samoa, Solomon Islands, Timor-Leste, Tonga and Vanuatu. The second group are on the cusp of the demographic

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Asia-Pacific is home to 1.7 billion young people under the age of 25

## BOX 3.1: Who are the young?

There is no universal definition of the 'young' or 'youth', as these terms usually refer to a more fluid category than a fixed age group. A young population is commonly defined as one with a relatively high proportion of children, adolescents and young adults. Youth is usually understood as the period between the age of leaving compulsory education and finding first employment. Different countries and organizations, however, assign diverse meanings to these concepts.

The United Nations defines 'youth' as persons be-

tween 15 and 24 years of age. Several Asia-Pacific countries have alternative definitions—India, for example, in its 2014 National Youth Policy, defines youth as those between 15 and 29 years of age.

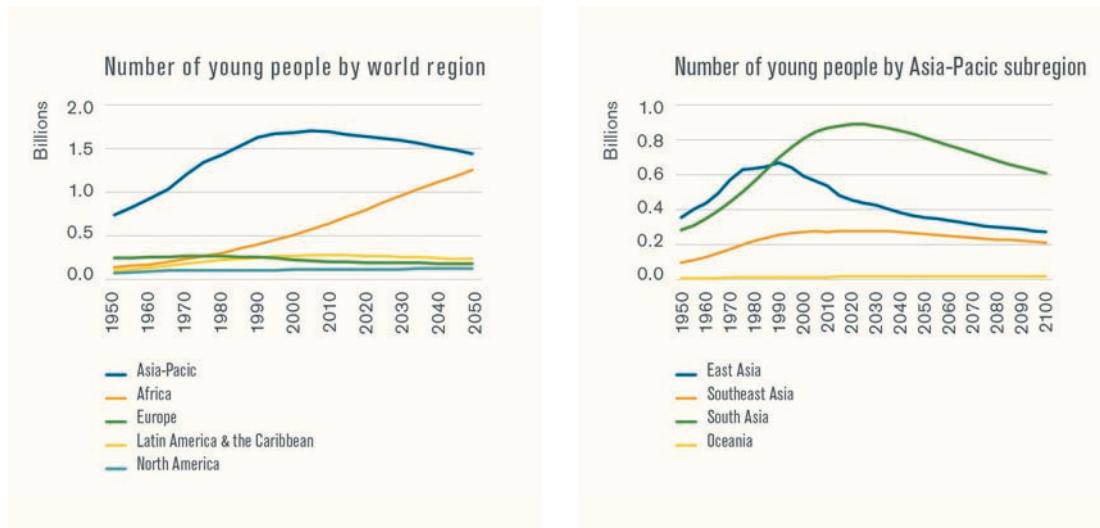
Since varying terms make it difficult to effectively discuss challenges and opportunities related to youth across countries, this report generally adopts the United Nations definition of young people as those comprising ages 0 to 24. They fall in two sub-groups: namely, children aged 0 to 14 and youth aged 15 to 24.

transition. Only Timor-Leste's share will remain relatively high, at more than 50 percent, in 2050.

Many countries with the largest portions of youth today are among the poorest nations. Demographic transition could provide critical

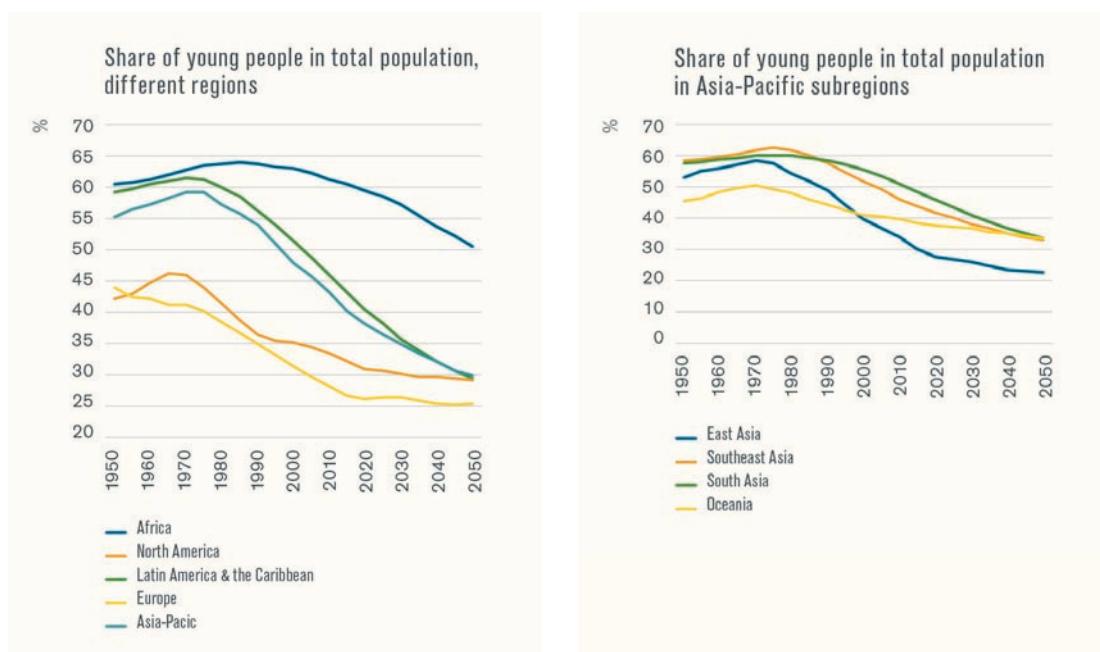
impetus for human development, but depends largely on expanding constrained capacities to provide basic health and education services, and decent jobs and livelihoods.

**FIGURE 3.1:**  
The world has a record number of young people, but the rate of growth has slowed



Source: Based on UN DESA 2015a.

**FIGURE 3.2:**  
The share of young people in total population is on the decline



Source: Based on UN DESA 2015a.

## BOX 3.2: A bulge in youth

The term 'youth bulge' was coined by a German social scientist, Gunnar Heinsohn, in the mid-1990s, but has gained greater currency in recent years. It refers to a significant increase in the number of adolescents and young adults as well as a rise in their share of the total population. Some scholars have described a youth bulge as occurring when 20 percent or more of a population is aged 15 to 24. It is also measured as the ratio of the population aged 15 to 24 to the population aged 15 to 64.

The youth bulge usually occurs about 20 years after the onset of fertility decline. In Asia-Pacific as a region, it took place about 30 years ago, when the share of youth in the total population reached a peak of 21 percent in 1985. It had declined to 16 percent in 2015, and is projected to fall further to 12 percent by 2050.

The timing of the peak in the share of youth in a population differs widely among Asia-Pacific countries. In Japan and the Democratic People's Republic of Korea, the youth bulge occurred in the 1960s, and in Singapore; Hong Kong, China (SAR) and the Republic of Korea in the 1970s. By contrast, in Afghanistan and Timor-Leste,<sup>33</sup> the shares have not yet reached their highest levels. Further, even though the largest share of youth occurred a few decades back in most Asia-Pacific countries, 21 out 37 countries have yet to achieve the peak in terms of their numbers of youth.

Commendable progress in education made Asia-Pacific an early achiever of the MDGs

Source: Omoju and Abraham 2014, Huntington 1996, UN DESA 2015a.

## EDUCATION IS THE PATH TO THE FUTURE

Education embodies human capabilities and skills. It is a human right as well as an essential component of human development and a thriving economy. Investing in education helps countries build labour skills, and move towards producing more sophisticated and economically rewarding products and services. In the 2015 World We Want survey conducted by the United Nations for the formulation of the Sustainable Development Goals, education was ranked as the number one area for development investment, not only in Asia-Pacific, but in the world as whole.<sup>5</sup> More than 8 million people voted for education as key to a future that is equitable, sustainable and prosperous.<sup>6</sup>

Encouraged by the Millennium Development Goals, Asia-Pacific countries made significant progress in strengthening education systems and getting more children, particularly girls, to school. In enrolment and gender parity in primary education, a majority of countries in the region were early achievers. Progress has been mixed when it comes to higher levels of education as well as retention of students, however.

Disparities persist across subregions, and along the lines of gender, disability and location. Many children still do not make the transition from primary to secondary, or from secondary to tertiary education, leaving them poorly equipped to negotiate labour markets and lead successful, productive adult lives. Current education and training systems have been slow to adapt to changing demands of increasingly dynamic economies, complicating the transition of young people from school to work. Children and youth need to not only go to school and remain there, but also to emerge with both the knowledge and the skills to thrive in today's world.

This is not an easy process in a region with 1.7 billion people under age 25. Education systems are under tremendous pressure to expand. But they need to rise to this challenge in order to maximize the demographic dividend.

## LAYING A FOUNDATION FOR LIFE: PRE-PRIMARY SCHOOL

Pre-primary education for children from age three to the official primary school entry age plays a critical role at a time when children's brains are rapidly developing. Children become more independent and confident, and are likely to perform better throughout the course of their education and in employment.<sup>7</sup> A recent study by the United Nations Educational, Scientific and Cultural Organization (UNESCO) found that in 58 out of 65 countries, 15-year-old students who attended at least a year of pre-primary school outperformed students who did not, even after allowing for differences in socioeconomic background.<sup>8</sup>

Globally, pre-primary education has expanded from 112 million children in 1999 to 184 million in 2013, equivalent to an increase in the gross enrolment ratio from 33 percent to 54 percent (Table 3.1). Across Asia-Pacific, the rate of progress has been uneven, with relatively faster progress in East Asia and Oceania. While the enrolment rate has more than doubled or almost doubled in many countries, over half of

young children in about a third of the region's countries still do not receive pre-primary education (Annex Table 16).

Bhutan, Cambodia, Fiji and Timor-Leste had pre-primary enrolment rates below 20 percent in 2013. At the opposite end of the spectrum, Viet Nam achieved an 81 percent share, while Australia; Hong Kong, China (SAR); Papua New Guinea and Thailand had attained 100 percent (Annex Table 16).

Rural-urban and other geographical disparities are noticeable in many countries, since governments generally have yet to assume sufficient responsibility for pre-primary education. The cost of private provision contributes in large part to major disparities between the richest and poorest children. In Indonesia, 99 percent of kindergartens are privately run, likely accounting for huge variations in enrolment rates across provinces.<sup>9</sup> Some middle-income countries have lower participation than poor countries—in 2013, the Islamic Republic of Iran sent 42 percent of children to pre-primary education, compared with 85 percent in Nepal,<sup>10</sup> suggesting a strong policy commitment and state support in the latter.

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**Enrolment in  
pre-primary school  
varies regionally,  
due to cost and  
policy preferences**

**TABLE 3.1:**  
**Progress on pre-primary education has been mixed**

	Gross enrolment ratio		Enrolment number (millions)	Gender parity index	
	1999	2013		2013	% change since 1999
East Asia	37	74	39	54	0.98
South-east Asia	35	60	14	68	0.99
South Asia	22	55	54*	150*	0.94
Oceania/Pacific small island developing states	37	72*	0.2*	120*	0.98
Arab States	15	27	4	95	0.79
Central Asia	22	35	2	44	0.95
Central and Eastern Europe	52	74	12	31	0.96
Latin America and the Caribbean	54*	76*	19	21	1.01
Sub-Saharan Africa	11	19	13	136	0.96
North America and Western Europe	75	84	22	15	0.98
World	33	54	184	64	0.97

Note: \* Data ranging from 2012 or older.

## CLOSING IN ON UNIVERSAL PRIMARY EDUCATION

Asia-Pacific has made significant progress towards universal primary education—enrolling approximately 91 percent of children aged 5 to 12 in 2013, comparable to levels in North America, but beneath those in Europe. Net enrolment rates ranged from close to 88 percent in the Pacific to 97 percent in East Asia. South Asia, which had enrolment rates of 78 percent in 1999, had almost achieved universality by 2013 (Table 3.2). Though both East Asia and South-east Asia have seen little progress since 2000, they were already close to universality. Only a few countries remain below 90 percent: Federated States of Micronesia, Nauru, Pakistan, Papua New Guinea and Solomon Islands.<sup>11</sup>

Globally, improvements in gender parity have been substantial (Table 3.2).<sup>12</sup> Among all regions, only the Pacific small island developing states, the Arab States and sub-Saharan Africa have yet to achieve parity, but they too have registered significant progress since 1999. More than 20 Asia-Pacific countries in the region had reached gender parity by 2013.<sup>13</sup> Only Afghan-

istan, with a net enrolment rate for girls of 64 percent,<sup>14</sup> and Pakistan of 66 percent<sup>15</sup> still have large gender gaps.

Once children are enrolled in primary school, an additional challenge is to keep them there. Globally, the number of children without primary education fell by almost half in the last decade. In 1999, South Asia and sub-Saharan Africa accounted for three-quarters of the world's out-of-school population of 106 million. Since then, South Asia has achieved the fastest decline of all regions, cutting by more than half the number out of school.<sup>16</sup> Nonetheless, more than 10 million children in South Asia and 17 million children across Asia-Pacific are still not in primary school. While 98 percent of children in East Asia complete primary school, only 64 percent do in South Asia, and 51 percent in Pacific small island developing countries (Table 3.3). Reasons for leaving school can include pressure to work in impoverished families or a perception that schools are poor in quality and limited in relevance. A high risk of illiteracy is one of many damaging consequences.

Apart from education being accessible, the quality at all levels is also crucial, as some pol-

Quality primary  
education mitigates  
the risk of illiteracy

**TABLE 3.2:**  
**All regions have reached or are close to achieving universal primary education**

	Adjusted Enrolment rate (%)		Enrolment number (millions)			Gender parity index	
	1999	2013	1999	2013	Change (%)	1999	2013
East Asia	95	97	146	104	-29	1.00	1.00
South-east Asia	93	94	69	69	0	0.98	1.00
South Asia	78	94	155	196	26	0.82	1.00
Oceania/Pacific small island developing states	72	88	1	2	100	0.87	0.94
Arab States	80	88	35	43	23	0.9	0.97
Central Asia	94	94	7	5	-28	0.99	0.99
Latin America and the Caribbean	94	93	70	65	-7	0.97	1.00
Sub-Saharan Africa	59	80	83	148	78	0.88	0.94
Europe	96	98	43	38	-12	1.00	1.00
North America	95	93	53	52	-2	0.99	1.00
World	84	91	653	713	9	0.93	0.98

Source: UNESCO Institute for Statistics 2015.

Note: The adjusted enrolment rate includes primary school age students who have reached secondary education earlier due to promotion or other reasons.

icy makers have now recognized. For example, India's 12th Five Year Plan report notes, "Poor quality of education resulting in weak learning outcomes at each stage of education is the central challenge facing the Indian education sector today."<sup>17</sup> Around half of children in India reach the end of primary school without being able to read at an appropriate level or solve simple math problems.<sup>18</sup> These deficits have occurred despite improvements in the reach of educational systems. In rural areas, poor quality has promoted an increase in the enrolment of children aged 6-14 in private schools, from 18.7 percent in 2006 to 29 percent in 2013.<sup>19</sup> Parents who can afford it typically move their children to private schools.<sup>20</sup>

#### SECONDARY SCHOOL OPENS OPTIONS, BUT IS NOT ALWAYS AVAILABLE

Primary school is only a first step towards an education that equips young people to successfully live and work, and break the cycle of poverty otherwise transmitted across generations. Secondary education offers a bridge to further learning and more options for employment. It increases skills and capacities to compete in a globalized world. With nearly universal primary education in Asia-Pacific, the number of children seeking secondary education has increased in recent years. Many countries now face a twin challenge of both achieving and sustaining universal primary education, and scaling up enrolment in secondary school.

Secondary education has expanded rapidly in recent years in Asia-Pacific, as in other world regions. Globally, the gross enrolment ratio had reached 75 percent by 2013, up from 59 percent in 1999. Progress was somewhat faster in East Asia and South Asia, albeit with the rate of expansion greater for lower secondary education, for students aged 12 to 14, than for overall secondary education. At 100 percent and

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Many countries now face a twin challenge of sustaining universal primary education and scaling up secondary schooling

**TABLE 3.3:**  
**Despite progress, millions of children still do not complete primary school**

	Survival rate to the last grade of primary education (%)		Out-of-school children in primary education (in millions)			Share of out-of-school girls in total (%)	
	1999	2012	1999	2012	Percentage change	1999	2012
East Asia	89	98	7	3	-60	47	45
South-east Asia	78	85	5	4	-17	54	49
South Asia	64	64	37	10	-73	66	48
Pacific small island developing states	55	51	0.4	0.2	-42	54	55
Arab States	82	83	8	4	-43	59	58
Central Asia	97	98	0	0	-22	52	52
Latin America and the Caribbean	77	77	4	4	-6	58	47
Sub-Saharan Africa	58	58	42	30	-30	54	56
Europe	95	95	2	1	-54	50	42
North America	82	87	3	3	20	54	46
World	75	75	106	58	-45	58	53

Source: UNESCO Institute for Statistics 2015.

**TABLE 3.4:**  
**Enrolment in secondary education has seen a rapid rise**

	Lower secondary (%)	Upper secondary (%)	All secondary (%)			
1999	2013	1999	2013	1999	2013	
East Asia	77	101	40	84	60	92
South-east Asia	68	86	38	59	55	74
South Asia	60	81	32	54	44	66
Pacific small island developing states	42	78	20	30	34	49
Arab States	75	87	45	59	61	73
Central Asia	86	96	82	104	85	98
Latin America and the Caribbean	95	104	66	80	81	93
Sub-Saharan Africa	30	50	21	35	26	43
Europe	98	104	96	112	97	107
North America	91	100	68	77	80	89
World	71	85	46	66	59	75

Source: UNESCO Institute for Statistics 2015.

Note: The enrolment rate exceeds 100% when children above or below the age of secondary schooling are enrolled in secondary schooling.

In most Asia-Pacific countries, secondary school enrolment lags behind the world average

over, East Asia has achieved universal coverage in lower secondary education. Rates are also relatively high at about 80 percent in South-east Asia and South Asia. (Table 3.4).

Secondary education enrolments in Asia-Pacific increased from 217 million to 305 million in the last decade, with the region accounting for almost 72 percent of a global increase of over 550 million students. South Asia alone accounted for almost half of the global surge, with particularly strong progress for girls. The number of students has declined in East Asia, from 58 million to 52 million, as it is further along in the process of demographic transition and has a shrinking share of young people (Table 3.5).

Increases in upper secondary education for students aged 15–18 have occurred at faster rates than for primary or lower secondary education in Asia-Pacific, but upper secondary enrolment still lags behind, at less than 60 percent in South-east Asia and the Pacific. In most Asia-Pacific countries, rates were below the world average of 66 percent in 2013. Differences between upper and lower levels can be wide, reaching 32 percentage points in South Asia, for example. The largest increase in the upper secondary enrolment rate was in East Asia, from 40 percent in 1999 to 84

**TABLE 3.5:**  
**Asia-Pacific accounts for much of the increased number of students in secondary school**

	Lower secondary (in millions)			Upper secondary (in millions)			All secondary (in millions)		
	1999	2013	Percentage change since 1999	1999	2013	Percentage change since 1999	1999	2013	Percentage change since 1999
Asia-Pacific	143	165	15	76	138	81	217	306	41
East Asia	58	52	-10	26	49	88	84	101	20
South-east Asia	25	30	20	11	16	45	36	47	30
South Asia	58	83	43	38	73	92	97	157	61
Oceania	2	2	0	2	2	0	3	4	33
Arab States	14	19	35	8	12	50	22	31	40
Central Asia	7	7	0	2	3	50	9	10	11
Latin America and the Caribbean	34	39	14	19	25	31	54	64	18
Sub-Saharan Africa	14	33	135	8	19	137	22	52	136
Europe	41	31	-24	29	28	-3	70	58	-17
North America	22	26	18	16	20	25	38	46	21
World	274	318	16	163	250	53	437	568	30

Source: UNESCO Institute for Statistics 2015.

percent in 2013, while the Pacific has attained only 30 percent. Only a handful of Asia-Pacific countries, such as Australia, Japan, Marshall Islands, New Zealand, Republic of Korea, Sri Lanka and Tokelau, have achieved universal secondary education.

Globally, the number of adolescents who are not in secondary school has fallen significantly from 98.8 million in 1999 to 65 million in 2013, largely due to progress in East Asia, where the number dropped from 15 million to 3 million, and South Asia, from 38 million to 26 million. Overall, Asia-Pacific accounts for 82 percent of the global reduction. Even so, about 26 percent of all out-of-school adolescents live in South Asia (Table 3.6).

An intensive focus on universal primary education in some countries has limited attention to issues of access, equity and quality of secondary education, which varies across income groups, gender, social groups and geography. Wealthier children are more than twice as likely to be enrolled as poorer children. Gender inequities generally operate to the disadvantage of girls, although a few countries in East Asia and the Pacific now have more girls enrolled than boys in secondary education—a reverse gender gap (Box 3.3). In Bangladesh, Cook Islands, Nauru and Samoa, fewer than 90 boys are enrolled for every 100 girls; in Bhutan, China, Fiji, Kiribati, Malaysia, Mongolia, Myanmar, Philippines, Thailand and Viet Nam, the figure is about

**TABLE 3.6:**  
The number of adolescents not in secondary school has fallen, but South Asia still has a large share

	Number (millions)		Rate, male and female (%)		Rate, female (%)	
	1999	2013	1999	2013	1999	2013
East Asia	15.6	3.5	21	7	20	6
South-east Asia	9.5	4	26	12	25	11
South Asia	38	26	39	26	46	27
Oceania	0.24	0.05	13	3	11	3
Arab States	5	3.7	27	17	32	21
Central Asia	1	0.5	11	7	6.5	7
Latin America and the Caribbean	3.8	2.5	11	7	11	6
Sub-Saharan Africa	21	22.7	46	34	52	36
Europe	3.5	1	8	4	8	4
North America	2.7	2.1	11	8	11	8
World	99	65	26	17	28	18

Source: UNESCO Institute for Statistics 2015.

90 to 96 boys for every 100 girls.<sup>21</sup> More boys than girls are enrolled in secondary education in Afghanistan, India, Lao People's Democratic Republic and Pakistan.

Parallel secondary school systems have sprung up in a number of countries. One type, mostly private, offers challenging and dynamic

In 17 Asia-Pacific countries, boys are disadvantaged in secondary enrolment and learning achievement

### BOX 3.3: A new kind of gender disparity

Debates on gender issues in education have generally focussed on girls' disadvantages. The emergence of boys' disadvantages in terms of enrolment and learning achievement in secondary education adds a new dimension. The reverse gender gap has been evident in developed countries since the 1990s, and is becoming increasingly common in some middle-income and low-income countries.

Over the years, the number of countries experiencing this trend has grown, and the gaps have widened. There are 54 countries where the gross

enrolment ratio in secondary education favours girls, and 17 where there are fewer than 90 boys for every 100 girls. While Bangladesh is the sole low-income country experiencing this phenomenon, there are 17 lower-middle-income countries on the list. Among all such countries, 21 are in Latin America and the Caribbean, and 17 in Asia-Pacific.

Male disadvantage in education is complex and not well documented. Strategies that work at primary level are not necessarily effective at secondary level, as expectations vary among age groups.

courses, advanced labs and facilities, well-qualified teachers, strong student engagement and active parental involvement with an eye towards preparing students for college and successful careers. The other system, mostly public, suffers from low student academic achievement, a seeming inability to instil in students a belief in the possibility of their societal success, and few expectations that students will even complete high school, much less enrol in college. The growth in the number of secondary schools over the last decade has occurred primarily among private schools, which now represent about a third of the region's secondary schools.<sup>22</sup>

While the quality of secondary education remains a serious issue, secondary school students in East Asia continue to outperform their peers in other regions of the world on international standardized tests, capturing top scores and exceeding Organization for Economic Cooperation and Development (OECD) averages. For example, in the 2012 Programme for International Student Achievement test, the top five scores globally belonged to countries in East Asia (Box 3.4).

## TERTIARY EDUCATION REMAINS LIMITED IN SCOPE AND QUALITY

A strong tertiary education is essential to build a modern, technologically advanced economy.<sup>23</sup> Having more people with advanced training and degrees improves competitiveness, providing professional, technical and managerial skills, many of which are increasingly critical in the shift to knowledge economies.<sup>24</sup>

Globally, tertiary education has experienced explosive growth, with the number of students enrolled increasing from 95 million in 1999 to around 199 million in 2013, a 109 percent increase. Asia-Pacific's enrolment grew faster than in any other region, from about 30 million tertiary students in 1999 to over 96 million in 2013, a more than three-fold increase. This was driven by a 290 percent jump in East Asia and a 245 percent rise in South Asia. Asia-Pacific now accounts for nearly half of the world's students in higher education. While women globally account for 51 percent of students enrolled in tertiary education, however, Asia-Pacific has one of the lowest shares of any region at 49 percent, falling to 46 percent in South Asia (Table 3.7).

Despite rapid growth in tertiary education in absolute numbers across regions since 1999, less than a third of potential students have access to it. In Asia-Pacific, the rate is less than 30 percent, compared to around two-thirds in

Strong tertiary education is a building block for a modern, technologically advanced economy

### BOX 3.4: Ranking at the top of the world

Educational achievement globally can be compared using data from the Programme for International Student Assessment (PISA), an international assessment conducted by the OECD to measure 15-year-old students' reading, mathematics and science ability. It does not test the curriculum of a particular country, but the ability of students to apply skills to situations outside of school, placing "an emphasis on functional knowledge and skills."

The test assesses more than half a million students across 65 countries/territories. In 2015, the OECD published the biggest ever global school ranking, bringing together a number of international assessments. Singapore took the lead, followed by Hong

Kong, China (SAR); the Republic of Korea; Japan and Taiwan Province of China. Finland ranked sixth, while the United States came in 28th. African countries dominated the bottom rankings.

Possible reasons for the outstanding performance of several Asia-Pacific countries could be the way teachers are trained, the amount of homework, out-of-school tuition, competitive testing and parental encouragement. Cultural values may play a role, since, in Western countries, grandchildren of immigrants from high-performing Asia-Pacific countries do equally well on the PISA even with a Western education.

**TABLE 3.7:**  
**Enrolment in tertiary education in Asia-Pacific has grown faster than in any other region**

	All (millions)	Percentage		Share of females (%)	1999-2013 change
		1999	2013		
Asia-Pacific	31	96	42	49	209
East Asia	10	39	39	50	290
South-east Asia	9	17	49	52	89
South Asia	11	38	38	46	245
Oceania	1	2	55	57	100
Arab States	5	9	44	50	80
Central Asia	1	2	50	52	100
Latin America and the Caribbean	11	24	54	56	118
Sub-Saharan Africa	2	7	40	41	250
Europe	25	31	54	54	24
North America	18	27	55	56	50
World	95	199	49	51	109

Source: UNESCO Institute for Statistics 2015.

Europe, North America and Oceania (Table 3.8). Among countries in Asia-Pacific, the range is very wide, from 98 percent in the Republic of Korea to 4 percent in Afghanistan; generally, access is expanding more rapidly in high- and middle-income countries (Figure 3.3).

The profile of tertiary students is undergoing considerable change, as traditionally excluded groups now participate, and older individuals seek to upgrade their qualifications. At the same time, access is undercut by disparities, often accumulating at lower levels of education. By and large, an advanced degree remains a privilege of the rich and middle class, and serves to maintain gaps in income. In Viet Nam, for example, 52 percent of young adults from the top quintile have attended higher education, compared to only 4 percent of those from the lowest quintile. In Bangladesh and Cambodia, less than one percent of young adults from households in the poorest quintile have ever attended higher education.<sup>25</sup> In India, Indonesia, the Philippines and Viet Nam, rising wage inequalities are closely linked to widening wage gaps between people with tertiary education and those at lower levels of schooling.<sup>26</sup> Without intervention, today's inequalities in education will become tomorrow's

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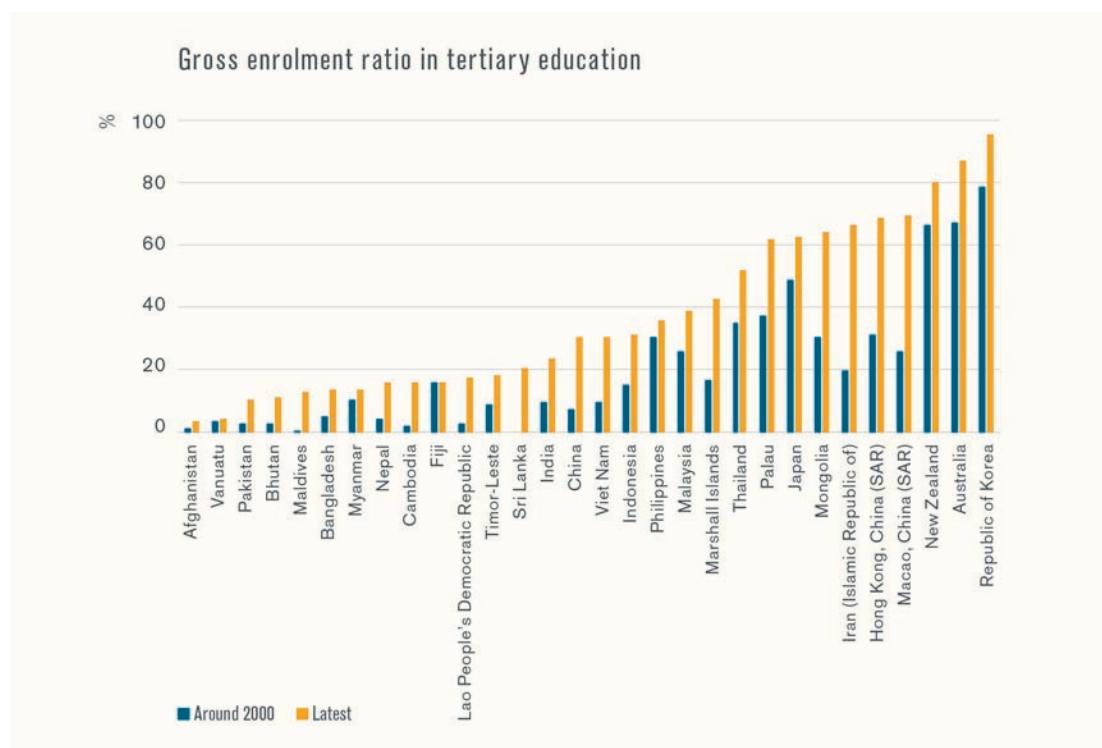
Without appropriate interventions, today's educational inequalities will become tomorrow's inequalities in wealth and human development

**TABLE 3.8:**  
**Less than a third of potential students have access to tertiary education**

	All (%)		Female (%)		Male (%)		Gender parity	
	1999	2012	1999	2012	1999	2012	1999	2012
East Asia	10	29	8	30	11	28	0.7	1.1
South-east Asia	18	30	18	31	18	28	1	1.1
South Asia	8	23	6	20	10	25	0.6	0.8
Oceania	46	61	51	71	41	51	1.3	1.4
Arab States	19	26	17	27	20	25	0.8	1.1
Central Asia	20	25	20	26	20	23	1	1.1
Latin America and the Caribbean	21	43	23	48	20	38	1.2	1.3
Sub-Saharan Africa	4	8	3	6	5	10	0.7	0.6
Europe	48	69	53	77	44	61	1.2	1.3
North America	48	64	53	73	42	55	1.3	1.3
World	18	32	18	33	18	31	1	1.1

Source: UNESCO Institute for Statistics 2015.

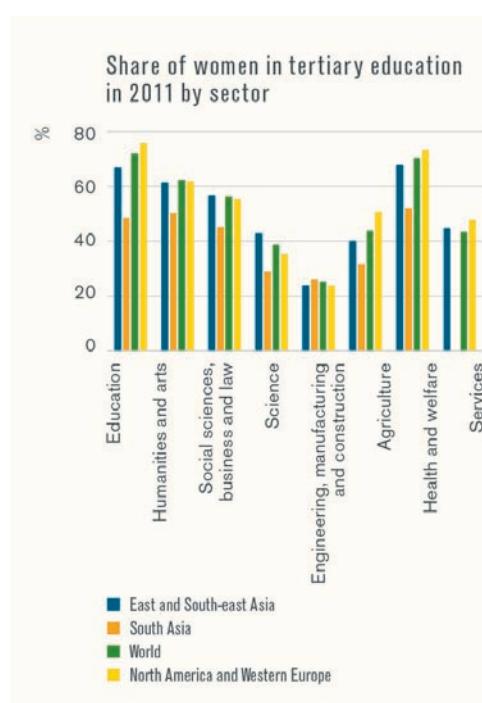
**FIGURE 3.3:**  
Access to tertiary education is expanding faster in wealthier countries



Source: UNESCO Institute for Statistics 2015.

Despite gender parity in tertiary education in many Asia-Pacific countries, women are underrepresented in science and engineering

**FIGURE 3.4:**  
Women still tend to study in traditional fields



inequalities in the distribution of wealth and wider opportunities for human development.

Globally, gender parity has been achieved in tertiary education, and remarkably, female enrolment is higher than male enrolment in some regions, including East Asia and South-east Asia. In South Asia, male enrolment is much higher, but with a trend towards parity. Women still tend to be underrepresented in science and engineering, however, and ‘overrepresented’ in more ‘traditionally feminine’ areas such as education and health (Figure 3.4).<sup>27</sup> Since scientists and engineers are likely to be paid more than teachers and nurses, this will continue to aggravate wage disparities. Factors behind women’s underrepresentation in scientific fields including poor career counselling, lack of role models, negative attitudes from families and cultural norms.<sup>28</sup>

Despite rapid expansion, tertiary education systems in Asia-Pacific are not equipped to meet demand, as reflected in an enrolment rate for upper secondary education that is twice that of tertiary institutions. Without significant,

## **BOX 3.5:** **Benchmarking universities globally**

Higher education increasingly became a global market in the 1990s, and universities are now subject to global rankings. The best known are the Shanghai Jiaotong University and the Times Higher Education rankings, which apply criteria involving teaching, research, knowledge transfer and international outlook. While there are many critiques of these rankings, they appear set to stay, underlining that universities in Asia-Pacific will have to compete to attract the best students and best-qualified faculty from across the world.

The 2014-2015 Times Higher Education rankings showed that the United States dominates in the best higher education institutions, with 74 institutions in the top 200. The United Kingdom ranks second with 29, Germany third with 12 and the Netherlands fourth with 11. North America and Europe together account for 167 universities in the top 200. Though almost half of the world's higher education students are located in Asia-Pacific, the region is struggling to gain high rankings. Only a few countries in the region have universities in the top 200 category: Australia with 8; Japan with 5; the Republic of Korea with 4; Hong Kong, China (SAR) with 4; China with 3; Singapore with 2 and New Zealand with 1.

Sources: Welch 2011.

urgent investment, this situation may worsen, as the middle class expands from 525 million in 2009 to 3.2 billion in 2030.<sup>29</sup> With many able to pay for education, they may increasingly look to private institutions, as is already happening. Another driver of demand will be the need to boost productivity, given ageing populations. These issues will require transformational change in tertiary education at a pace and scale never seen before (Box 3.5).

Beyond access, there are issues of affordability, quality and accountability in higher education. Expansion has been uneven and inconsistently regulated, boosting accessibility, but not necessarily excellence or equity. The quality of learning, teaching, research and innovation have not kept pace in general, even as some Asia-Pacific countries top global higher education rankings. In many Asia-Pacific countries, rapid expansion of enrolment in combination with budget constraints has resulted in an

The poor performance of universities in South and South-east Asia is not surprising. Higher education institutions in Asia-Pacific as a whole, including the famed Indian Institutes of Technology, have primarily been teaching centres. Only recently have some begun to focus more on research. Most universities in the region do not have separate categories of teaching and research staff. Attempts to improve higher education have been characterized by over-regulation, which has proved counterproductive, particularly in terms of innovation.

Poor quality in higher education propels many young people to study elsewhere. Students from Asia comprise a significant proportion of the total international student body in North America, Europe and Oceania. Some universities from developed countries, including Australia, Canada, the United Kingdom and the United States, are increasingly establishing foreign branch campuses in Asian developing countries. The aim is to provide access to Asian students who otherwise may not be able to afford an overseas study experience.

**The future of  
the region depends  
on eliminating  
youth illiteracy and  
associated gender  
disparities**

increase in student-faculty ratios and erosion of the quality of library and laboratory facilities. Consequently, the quality of higher education has declined.<sup>30</sup>

### **YOUTH ILLITERACY REMAINS AN OBSTACLE**

The global number of illiterate young people declined from 139 million in 1999 to 126 million in 2012, but youth illiteracy is quite widespread in the region (Table 3.9). Around 175 million young people in low- and lower-middle-income countries—around a quarter of the youth population—cannot read all or part of a sentence, implying they are functionally illiterate.<sup>31</sup> Among illiterate youth, young women comprise 61 percent (Table 3.15).

Literacy rates for youth aged 15 to 24 have improved everywhere; globally, the rate increased from 87 percent to 90 percent in the last decade.

**TABLE 3.9:**  
**Youth illiteracy has fallen but affects a quarter of young people globally**

	Millions		Female (%)	
	1999	2012	1999	2012
East Asia	2.3	0.9	64	54
South-east Asia	3.9	2.9	53	51
South Asia	76.1	62.1	63	64
Pacific small Island developing states	0.4	0.4	53	42
Arab States	9.6	6.9	65	64
Central Asia	0	0	39	34
Latin America and the Caribbean	3.8	2.4	45	45
Sub-Saharan Africa	43.1	50.6	61	59
Europe	0.4	0.3	46	46
North America	1.6	1.6	50	50
World	138.9	125.6	62	61

Source: UNESCO Institute for Statistics 2015.

**TABLE 3.10:**  
**All world regions have made significant progress on literacy rates**

%	Youth literacy		Adult literacy	
	1999	2013	1999	2013
East Asia	99	100	91	95
South-east Asia	96	97	90	93
South Asia	74	84	59	67
Pacific small Island developing states	75	77	67	71
Arab States	83	90	67	78
Central Asia	100	100	99	100
Latin America and the Caribbean	96	97	90	92
Sub-Saharan Africa	69	71	57	60
Europe	100	100	99	99
North America	98	98	96	96
World	87	90	82	85

Source: UNESCO Institute for Statistics 2015.

Large disparities persist in Asia-Pacific as a whole, but there has been significant improvement in South Asia, with the rate rising from 74 percent to 84 percent over the last decade. Even so, the subregion is still home to more than half of illiterate people globally and confronts some of the worst gender disparities. More modest progress has unfolded in the Pacific, while the literacy rate is already very high at 97 percent or more in East Asia and South-east Asia (Table 3.10).

In Afghanistan, Pakistan and Papua New Guinea, more than a fourth of youth are not literate; in 16 other countries, all youth were literate in 2015.<sup>32</sup> Literacy rates in the region are generally higher among youth than adults, and gender disparities are less for young women, indicating progress over time. Except for Afghanistan, almost all Asia-Pacific countries have achieved or are close to gender parity in youth literacy.

#### CHILD LABOUR STILL DEPRIVES MILLIONS OF EDUCATION

According to the United Nations Children's Fund (UNICEF), 11 percent of children around the world, some 168 million, are trapped in child labour.<sup>33</sup> This violates their rights and embodies a tragic loss of human potential. The phenomenon signifies “a denial of their freedom in childhood, denial of their dignity, and their development for the future—including education and health,” as noted by 2014 Nobel Peace Prize Laureate Kailash Satyarthi.<sup>34</sup>

Although child labour has been on the decline in Asia-Pacific, the region still has the largest numbers of child labourers, at almost 78 million, or 9.3 percent of the child population. Sub-Saharan Africa has the highest proportion of child labourers, at over 21 percent, or 59 million in total numbers.<sup>35</sup> Within Asia-Pacific, around 69 percent of child labourers are found in agriculture, while 22 percent work in services, including as domestic helpers, and 7 percent in industry.<sup>36</sup> A large number are also in bonded employment or other forms of modern-day slavery.

The prevalence of child labour is a paradox, given that Asia-Pacific has a surge of youth who are available and looking for employment.

Unfortunately, informal businesses and small shops often employ children because they are cheaper and less likely to raise questions around benefits or the nature of the work, among other reasons. Poverty forces many children to work for their families. Whatever the cause, early involvement in child labour results in lower educational attainment, and later a struggle to find decent employment,<sup>37</sup> with a strong risk of being trapped in a cycle of poverty and deprivation. It also negatively impacts children's health in ways that can extend into adulthood, particularly among those working in hazardous conditions.

Since child labour is a complex phenomenon, reducing it requires actions on multiple fronts, including education, health, labour markets, social security and economic policy. Income support to vulnerable families, more accessible and higher quality secondary education, advocacy and awareness building to educate parents, and legislation to prevent child labour (Box 3.6) are all critical.<sup>38</sup> Without implementing laws on compulsory education, the minimum wage and protection of children's rights, countries will have a more difficult task in tackling the phenomenon.

#### **BOX 3.6:** **An activist calls for a complete ban on child labour**

Indian child rights activist Kailash Satyarthi, the 2014 Nobel Peace Prize laureate, has demanded a complete ban on every kind of child labour. Through his Bachpan Bachao Andolan (Save the Children Movement) and the Global March against Child Labour, he has freed tens of thousands of children from forced labour and what he calls modern day slavery. His work reaches out to children forced into cheap labour in factories and menial jobs, children pledged by their parents to work off a debt, girls sold in abusive marriages and children who are trafficked.

Source: UNDP 2015a.

## **HEALTHY EARLY YEARS LAST A LIFETIME**

The rapid biological and psychosocial changes that take place in childhood and adolescence affect every aspect of adult life, making this early period unique and important in laying the foundations for good health, both for the current generation and those to come. Health is an end in itself and a critical factor for human development as well as demographic transition, particularly as more children survive and fertility rates fall. A 1,000-day period beginning at conception and continuing into infancy is known as the age of opportunity, when sound health has a direct effect on cognitive development.<sup>39</sup>

Throughout childhood, sound health supports the ability to learn and flourish. Healthy behaviours can be established, such as those around eating the right amounts of nutritious food. As children move into adolescence, they should have opportunities to develop strategies to deal with risks and conflicts, and to make healthy choices related to sexual activity, and the use of tobacco and alcohol. Countries working towards universal health coverage, in the context of Agenda 2030 and the Sustainable Development Goals, need to pay adequate attention to adolescents, since their specific needs tend to otherwise be overlooked.

As a region, Asia-Pacific has made progress on many health issues. But overall, it still struggles with stark inequalities in health outcomes, which are not only high between countries, but also within them (Table 3.11). Child mortality rates soar in poor households, in many rural areas and where mothers have more limited education. In Cambodia, Lao People's Democratic Republic and Myanmar, for example, infants in the poorest quintile of the population are three times more likely to die than those in the richest. In the Philippines, the mortality difference is six-fold between mothers with no education and those with secondary and higher education.<sup>40</sup>

#### **DECLINES IN INFANT MORTALITY**

Improving child survival and child health is a trigger for demographic transition, underlining how countries still trailing behind need

**TABLE 3.11:**  
**Child mortality rates by socioeconomic and geographic factors, selected countries and years**

	Infant mortality						Under-five mortality					
	Wealth quintile		Place of residence		Mother's education level		Wealth quintile		Place of residence		Mother's education level	
	Poorest	Richest	Urban	Rural	Lowest	Highest	Poorest	Richest	Urban	Rural	Lowest	Highest
Bangladesh (2011)	50	29	42	43	55	33	64	37	50	55	71	39
Cambodia (2010)	77	23	22	64	73	31	90	30	29	75	87	35
India (2005-2006)	70	29	42	62	70	26	101	34	52	82	95	30
Indonesia (2012)	52	17	26	40	66	15	70	23	34	52	96	18
Lao People's Democratic Republic (2011-2012)	95	27	39	85	96	32	120	33	45	100	116	40
Mongolia (2010)	51	21	24	48	69	22	67	25	29	62	95	26
Myanmar (2009-2010)	49	13	25	43	43	27	62	17	29	53	51	33
Nepal (2011)	61	32	38	55	62	31	75	36	45	64	73	32
Pakistan (2012-2013)	90	44	63	88	92	30	119	48	74	106	112	36
Philippines (2008)	40	15	20	35	87	15	59	17	28	46	136	18
Solomon Islands (2006-2007)	16	23	23	27	32	28	42	33	31	38	26	33
Sri Lanka (2006-2007)	25	13	10	19	33	17	33	15	19	23	44	19
Viet Nam (2011)	23	11	13	14	23	12	28	12	15	17	29	14

Source: OECD 2014, Demographic and Health Survey (DHS) and Multiple Indicator Cluster Survey (MICS) 2005-2013.

## Reductions in infant mortality helped lower fertility rates

to invest more in maternal and child health. One of the most profound indicators of child well-being is infant mortality, which captures the prevalence of premature death before age one and provides an insight into the health and nutritional condition of the next generation of primary school-age children. While infant mortality declined globally by 46 percent from 1990 to 2013, the pace of change in Asia-Pacific was more rapid, at 64 percent in East Asia and the Pacific, including South-east Asia, and 51 percent in South Asia. The number of infant deaths in the region as a whole dropped from about 5.3 million to 2.1 million.<sup>41</sup>

Countries with the greatest declines in infant mortality also saw the largest reductions in under-five mortality—including Bangladesh, China, the Maldives, Mongolia and Nepal.<sup>42</sup> Despite this progress, infant mortality in the region is still six times higher than that of OECD countries, attributable to several factors, including maternal health, care at birth, and, for newborns, inadequate breastfeeding as well as susceptibility to diarrhoea, pneumonia, undernutrition and low birth weight. These are

all treatable or preventable causes, suggesting that targeted health and nutritional interventions could reduce rates even further in coming years. Infant mortality numbers ranged from less than 9 per 1,000 live births in Australia, Cook Islands, Japan, Malaysia, New Zealand, Republic of Korea and Singapore, to 97 in Afghanistan and Pakistan in 2013.<sup>43</sup>

The number of under-five deaths fell from 7.6 million in 1990 to 2.6 million in 2013,<sup>44</sup> although Asia-Pacific countries did not reach the Millennium Development Goal target of cutting the 1990 rate by two-thirds. The regional average was 41 deaths per 1,000 live births in 2012, better than the global average of 48. Progress in East Asia and the Pacific has been rapid, and considerable in South Asia, although nearly one in three under-five deaths in the world still take place there.<sup>45</sup> Between 1990 and 2013, nine countries that invested in early childhood interventions—Bangladesh, Bhutan, Cambodia, China, Iran, Maldives, Mongolia, Nepal and Timor-Leste—reduced child mortality by at least two-thirds.

Countries that continue to have high infant

and under-five mortality rates also have high fertility rates. When expected child survival is low, families continue to have more children, and face a lower probability of reaching their ideal family size. Afghanistan, Kiribati, Lao People's Democratic Republic, Pakistan, Papua New Guinea and Vanuatu are countries facing this issue. Others have achieved low child mortality while reducing fertility rates.

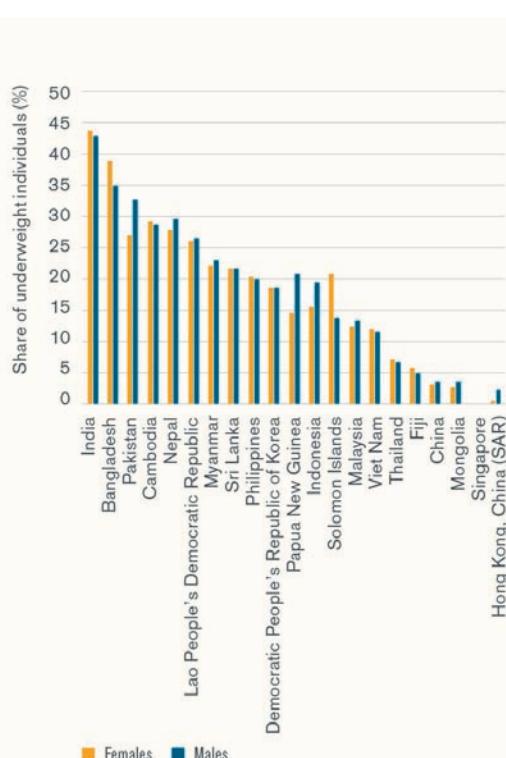
### HOME TO HALF THE WORLD'S STUNTED CHILDREN

Nearly half of all deaths in children under five are attributable to malnutrition—the situation is even worse for children with disabilities (Box 3.7). Poor nutrition in the first 1,000 days of a child's life can lead to stunted growth that impairs cognitive ability, and later school and work performance.<sup>46</sup> A child stunted by malnutrition also faces a higher risk of non-communicable illnesses such as diabetes, obesity and cardiovascular diseases.<sup>47</sup> If caught early enough, the impacts of stunting can be reversed, but over time, the consequences can be lifelong.

Between 1990 and 2013, stunting declined globally, from 40 percent to 25 percent of children under five. In Asia-Pacific, more than 100 million children under five are free from stunting as a result—numbers have fallen from 183 million in 1990 to 82 million in 2013. The region still accounts for half of the world's stunted children, however.<sup>48</sup> In Afghanistan, Bangladesh, Cambodia, India, Lao People's Democratic Republic, Nepal, Pakistan, Papua New Guinea and Timor-Leste, more than 40 percent of children under five are stunted (Figure 3.5). Nepal reduced stunting by more than one-third over a little more than 15 years, albeit from excessively high levels. Stunting levels are on average twice as high in the poorest 20 percent of households compared to the richest 20 percent in Bangladesh, India, Indonesia and Nepal. Both stunting and wasting rates are higher for boys than girls.<sup>49</sup>

Between 1990 and 2013, Asia-Pacific made significant progress in lowering the share of underweight children under five, which fell from 20 percent to just 5 percent in East Asia and the Pacific, and from 52 percent to 32 percent in South Asia. The region still accounts for

**FIGURE 3.5:**  
**Malnutrition rates are generally higher in South Asian countries than East Asian ones**



Note: data ranging from 2000 to 2013.  
Source: WHO 2016b, OECD-WHO 2014.

A stunted child faces a higher risk of non-communicable illnesses as an adult

two-thirds of the world's underweight children, however, and leads other world regions in the share and number of low birth weight children.<sup>50</sup> Infants born at a low birth weight are at greater risk of death during the neonatal period. Globally, South Asia and East Asia and the Pacific in 2013 had the highest percentages of child mortality attributable to neonatal deaths.<sup>51</sup>

For the region as a whole, further progress on child nutrition depends largely on South Asia, which has the highest prevalence and greatest numbers of children under five affected by malnutrition. Reducing poverty, achieving nutrition and food security, and improving feeding practices are among the most critical issues to accelerate progress.

### **BOX 3.7:** **Malnutrition and disability: making connections**

Both malnutrition and disability are major global public health problems and key human rights concerns. Children with disabilities are among the most marginalized and excluded groups in society. Facing daily discrimination, and lack of adequate policies and legislation, they are effectively barred from realizing their rights to health care, education and even survival.

An estimated 93 million to 150 million children worldwide live with disabilities. They are often among the poorest members of the population. They are less likely to access medical services or have their voices heard. They are more likely to drop out of school than any other vulnerable group, even in countries with high primary school enrolment rates. Their disabilities place them at a higher risk of physical abuse, and often exclude them from receiving proper nutrition or humanitarian assistance in emergencies. Too few data are collected about children with disabilities, hindering appropriate interventions.

Many countries have begun including children with disabilities in mainstream education, although some still favour segregation. In practice, most countries have hybrid policies and are incrementally improving inclusive practices.

Strengthening links between nutrition and disability could lead to important benefits. At numerous points throughout the life cycle, malnutrition can cause or contribute to an individual's physical, sensory, intellectual or mental health disability. By bringing work on these two issues together, some problems can be transformed into opportunities. Nutrition programmes for children can act as entry points to address and, in some cases, avoid or mitigate disability, for instance. This requires political commitment and resources, and improved collection and use of better data on disability.

Source: UNESCO 2015b, UNICEF 2015a.

### **Obesity is a concern especially among city-dwellers in East Asia**

#### **A GROWING ISSUE OF OBESITY**

At the opposite end of the spectrum, rates of obesity have grown among children and adolescents. Obesity is a significant risk factor for many non-communicable diseases, which now account for a growing share, and in some countries, the largest share of overall mortality. The World Health Organization has declared childhood obesity as one of the most serious public health challenges of the 21st century, given links in later life to diabetes, hypertension, heart disease and other illnesses.

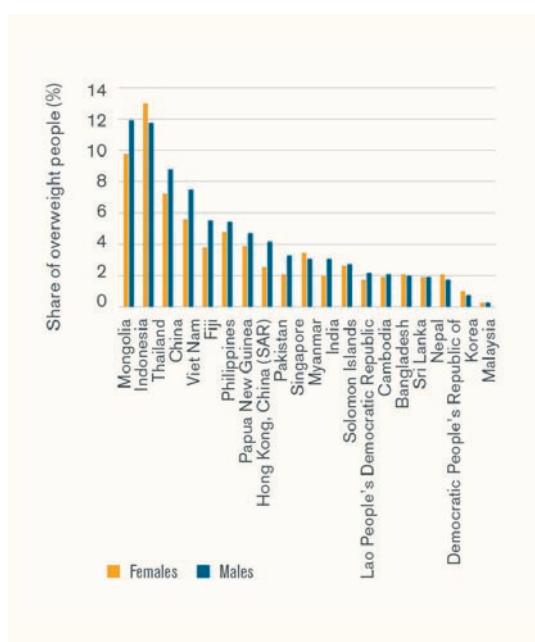
Globally the number of overweight infants and young children under age five increased from 32 million in 1990 to 42 million in 2013,<sup>52</sup> with much of the rise occurring in low- and middle-income countries. The numbers of children in Asia-Pacific edged up from 13.4 million in 1990 to 14.7 million in 2013.<sup>53</sup> Although childhood obesity has been common in some Pacific countries, it is now increasingly being reported from countries that have recently become affluent, such as China, Indonesia, Malaysia and Thailand. The rate is alarmingly high, more than

10 percent, in Indonesia, Mongolia and Thailand. In 2013, the proportion of obese girls, aged 2 to 19, reached 30 percent or more in Kiribati, Micronesia and Samoa—the highest levels in the world. Similar trends were found in boys. At the same time, the rate is less than 2 percent in Bangladesh, Cambodia, Democratic People's Republic of Korea, Lao People's Democratic Republic and Nepal. South Asian countries with low rates still have to contend with significant numbers of children who are overweight, given their large populations. (Figure 3.6)

Rapid urbanization, modernization and life styles with reduced physical activity and increasing intake of high calorie food foster the rise of obesity—levels are significantly higher in richer, more educated urban households. China, which once had the leanest of populations, is now rapidly catching up with the West in prevalence. Diabetes cases have almost quadrupled in the last 15 years.<sup>54</sup>

Both obesity and undernutrition coexist in a number of countries. In Indonesia, 36 percent of preschool and school children were stunted in 2013, while 12 percent were overweight. Some

**FIGURE 3.6:**  
**The share of overweight children is higher in East Asia and the Pacific compared to South Asia**



Note: Data range from 2000 to 2013.  
Source: OECD and WHO 2014.

young people suffer from malnutrition, fatal diarrhoea and tuberculosis; others can look to a future with a high risk of heart disease. This double burden imposes enormous stresses on national health systems.

#### ADOLESCENT HEALTH ISSUES NEED GREATER ATTENTION

Adolescent mortality rates in Asia-Pacific are relatively low. They are higher among boys than girls, and among older adolescents (15 to 19 years) than younger ones (10 to 14 years). Leading causes of death include unintentional injury, especially road injury; early pregnancy; HIV and AIDS; suicide; lower respiratory infections and interpersonal violence. Lower respiratory infections rank among the top five causes, and in South-east Asia, along with diarrhoeal diseases and meningitis, account for 18 percent of all deaths among 10 to 14 year olds. Violence is a particular problem in the region for boys; maternal mortality for girls.

A number of behavioural factors influence health in adolescence and later years. Some

are major causes of mortality and morbidity, such as suicide attempts. Health-compromising behaviour at this stage of life can have lasting consequences, underscoring the importance of prevention.<sup>55</sup>

Suicide is the leading cause of death for 15 to 19 year-old males and females in South-east Asia, and among the top five causes of mortality for both sexes in all regions.<sup>56</sup> Asian countries account for approximately 60 percent of the world's suicides, with some of the highest rates afflicting India, Japan, Nepal, Republic of Korea and Sri Lanka.<sup>57</sup> Suicide risks have complex origins in a variety of factors that can influence mental health, including genetics, socioeconomic standing, cultural norms and even practices within health systems such as the low availability of mental health-care professionals.

Depression is a major cause of illness, and is interlinked with tobacco and alcohol use, a sedentary lifestyle and obesity. Though alcohol consumption in Asia-Pacific is, on average, lower than that in Europe, Latin America and North America, harmful drinking among adolescents occurs in many countries. Between a quarter and a fifth of high school students in some Pacific island states had five or more alcoholic drinks in a row in a month.<sup>58</sup> Alcohol use contributes to risks of injury, violence, unprotected sex and suicide attempts. In Asia-Pacific in 2012, across all age groups, 5 percent to 6 percent of all deaths were attributed to alcohol consumption.

Drug and substance abuse and tobacco use are other major concerns,<sup>59</sup> since consumption often begins in adolescence. Boys aged 13 to 15 in South Asia and South-east Asia partake of tobacco at higher rates than in other regions, at over 22 percent compared to 10 percent in OECD countries. In a handful of countries, 30 to 60 percent of adolescent boys smoke, a significant public health hazard. Prohibiting the sale of tobacco products to minors, increasing the price, banning tobacco advertising and ensuring smoke-free environments are crucial measures to curb consumption.

Early sexual activity, within or outside of marriage, increases the vulnerability of adolescents to sexually transmitted infections, including HIV, unwanted pregnancies and coerced sex by older partners. Often it takes place in a context of highly unequal gender relations, and

**Adolescents are vulnerable to physical and mental health issues, requiring holistic counselling and care**

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## Despite social and economic progress, child marriage persists

limited information on sexual and reproductive health and/or access to appropriate health care services. With increasing age of marriage, premarital sexual activity among adolescents is on the rise.<sup>60</sup>

HIV prevalence is relatively low in the region, for example, compared to sub-Saharan Africa, but globally, one in seven of all new HIV infections occur during adolescence. Young people have a right to know how to protect themselves and must have the means to do so. This includes being able to obtain condoms to prevent sexual transmission, and clean needles and syringes for those who inject drugs. Better access to HIV testing and counselling is also needed. To reduce the vulnerability of young people to HIV, Bangladesh, India, Indonesia, Maldives, Myanmar, Sri Lanka and Thailand have initiated life skills-based HIV/AIDS education in schools and community institutions. Such initiatives are taking place at a slow pace, however, given cultural and traditional sensitivities.

Adolescents in Asia-Pacific are in some cases victims of sexual abuse and exploitation. The largest number of children and women trafficked worldwide are in or from Asia, with estimates ranging from 250,000 to 400,000, around 30 percent of the global total. Sexual abuse and exploitation have long-term implications for both physical and mental health, with consequences including depression, suicide, unintended pregnancies and HIV transmission.

### CHILD MARRIAGE DENIES RIGHTS AND COSTS LIVES

When a young girl marries, the consequences reverberate throughout her life. Child marriage, defined by the United Nations as occurring before the age of 18, violates human rights and compromises efforts to reduce gender-based violence, advance education, overcome poverty and improve health.<sup>61</sup> A landmark resolution calling for a ban on child marriage was agreed on 21 November 2014 during the 69th session of the United Nations General Assembly.<sup>62</sup>

Since child brides are under intense social pressure to prove their fertility, many experience early and frequent pregnancies before their bodies can safely carry or deliver children, resulting in high rates of maternal death or permanent

disability. Prenatal deaths are 50 percent higher among babies born to mothers under 20 years of age than among those born to mothers aged 20 to 29.<sup>63</sup>

Although child marriage continues to be a global problem, it is most entrenched in South Asia, where nearly half of all girls marry or enter an informal union before turning 18. Almost one in five girls is married before age 15. Bangladesh has the highest national prevalence, a staggering 66 percent.<sup>64</sup> More than 11 percent of girls there begin bearing children by age 15, and almost 59 percent are mothers by 19. In sub-Saharan Africa, 40 percent of girls under 18 years of age are married; in Latin America, the figure is 29 percent. It is 16 percent in East Asia and the Pacific.<sup>65</sup>

The age of marriage is rising in most South Asian and South-east Asian countries, however. From 1985 to 2010 in South Asia, early marriage declined from 63 percent to 45 percent, with much of the progress occurring among girls under 15. Since marriages of girls aged 15 to 18 are still common, however, more efforts are needed to protect them. Factors that cause child marriage can include poverty, concerns about security and protection of girls, lack of education or distance to schooling facilities, gender discrimination, and cultural and religious traditions.<sup>66</sup>

## TRANSITIONING TO ADULTHOOD DEPENDS ON DECENT WORK

Education and health care propel the start of demographic transition and smooth its course, equipping people with capabilities that eventually prompt declines in fertility and mortality. They also are critical in making the most of any potential demographic dividend, ensuring that a large young workforce can be most productive. Equally important is the ability of economies to quickly absorb young new labour force entrants in decent work. In much of Asia-Pacific, young working-age population are reaching its peak, joining the labour force in unprecedented numbers.

Some barriers stand in their way, however. Not enough decent jobs, poorly matched skills and labour market rigidities all spur climbing rates of youth unemployment and idleness. These are serious concerns, as they can permanently impair future productivity and employment.<sup>67</sup> Rising but unmet youth expectations can also have long-term consequences in terms of social cohesion and stability.

In many cases, young people do not acquire the right skills. While highly-educated youth fare relatively well, those with less or poorer quality education are more likely to end up in low-productivity, rural or informal sector work. Overall, youth employment rates have declined in the past two decades and are expected to continue to fall. In 1991, about 350 million youth across the region worked. Now only about 290 million do, out of a total of 665 million young people (Table 3.12). In the early 1990s, one in every four Asia-Pacific workers was a young person—today, only one in six is.

In East Asia, the youth labour force participation rate fell from 66 percent in 2000 to 55 percent in 2012. The drop has been slower in South-east Asia and the Pacific, from 56 percent to 52 percent. In South Asia, it decreased from 48 percent to 40 percent. Gender gaps have been closing, with the biggest remaining in South Asia. In East Asia, women work at higher rates than men, and their work participation rate is

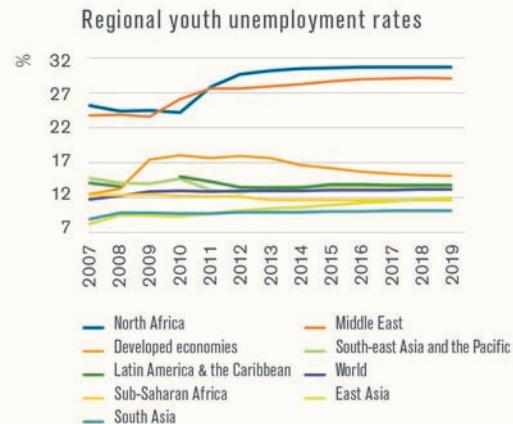
**TABLE 3.12:**  
**Regionally and globally, fewer youth are in the workforce**

Youth employment (millions)

	1991	2000	2012	2018
East Asia	181	132	119	87
South Asia	106	116	112	115
South-east Asia and the Pacific	49	52	50	49
Asia-Pacific*	349	312	292	261
Sub-Saharan Africa	45	59	82	96
Latin America and the Caribbean	42	47	49	51
Middle East	7	9	10	9
World	524	503	499	481

Source: Based on ILO 2016.

**FIGURE 3.7:**  
**Youth unemployment rates in South and East Asia are lower than in other regions**



Source: ILO 2015f.

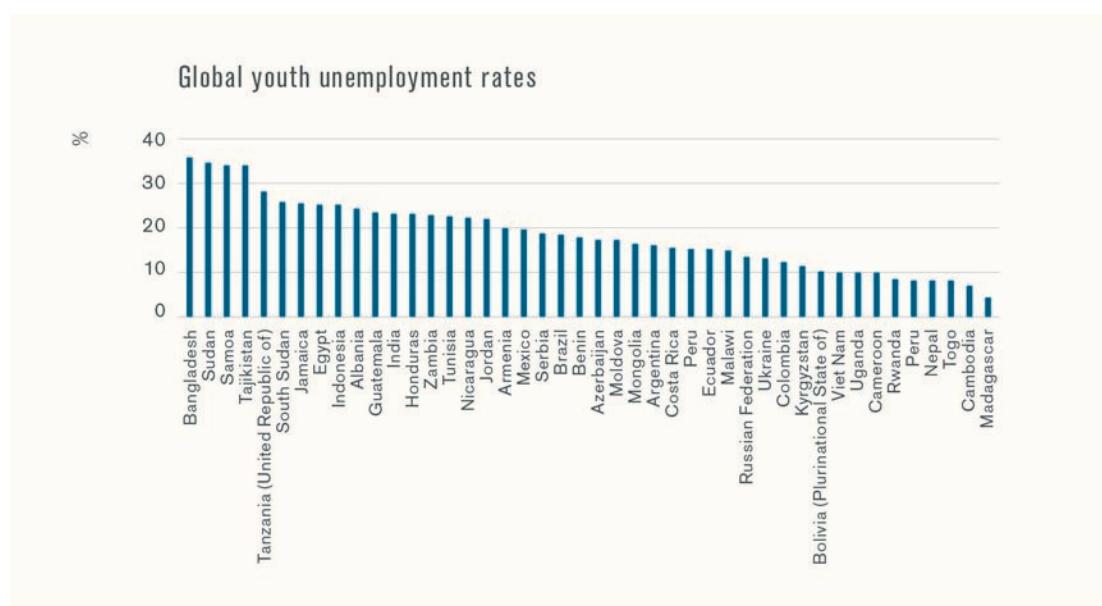
more than two and a half times that of women in South Asia.<sup>68</sup>

Lower employment and labour force participation rates among youth may in part reflect improved enrolment in school, but also the stark reality that it remains difficult for young people to find jobs. Although the youth unemployment rate in Asia-Pacific is still somewhat low compared to other regions (Figure 3.7), it is typically two to three times the general unemployment rate—and growing.<sup>69</sup> In East Asia, the rate increased from 8.7 percent in 2005 to 10.5 percent in 2014, while that of adults remained below 4 percent. Youth unemployment in South-east Asia rose from 9.6 percent in 1996 to 13.6 percent in 2014, even though the creation of jobs appropriate for youth has been fairly robust. In South Asia, youth unemployment was lower at 10 percent in 2014, but this fails to reflect the quality of jobs. The vast majority of employment growth there has been in vulnerable and informal employment, such as in subsistence agriculture.<sup>70</sup>

Youth unemployment challenges confront countries across the region regardless of their stage of socioeconomic development. In nearly half of 13 economies with recent official estimates, youth unemployment exceeded 10 percent. In Sri Lanka, 20 percent of young people in the labour force were unemployed in 2013;

**Youth employment rates are expected to continue falling**

**FIGURE 3.8:**  
**The share of youth who are not in employment or education is high in many countries**



Note: Data range from 2008-2014.

Source: ILO 2016.

Among 358 million youth globally who are not in school, training or employment, 220 million are in Asia-Pacific

the situation for young women was even more alarming at 28 percent. In Samoa, the rate for all young people was 19 percent, but 25 percent for young women, compared with 16 percent for young men.<sup>71</sup>

Competing against older, more experienced candidates makes it difficult for youth to transition from school to jobs. A significant portion of young people—not reflected in unemployment rates—have given up looking for work because prospects are limited; they are not otherwise in school or training.<sup>72</sup> Among the 358 million youth globally who are not in school, training or employment, 220 million are in Asia-Pacific, of whom 101 million live in South Asia.<sup>73</sup> More than one in four young people in Bangladesh, India, Indonesia and Samoa fall in this category. The rate in Cambodia and Nepal, by contrast, is less than 1 in 10 (Figure 3.8).<sup>74</sup> Rates are much higher for young women than young men, and in rural areas compared to urban ones, with the exception of Mongolia. About 300 million youth in the region are considered underemployed.

For young people who do have jobs, a common issue is quality. Many simply cannot afford to be unemployed and are obliged to take any job they can find, even if pay is poor and the job does not correspond to their skills. Trapped

in low-paid, low-productivity jobs, they become vulnerable to poverty, at rates that often exceed those of adult workers—median wages for young workers are generally below their adult counterparts for the same level of education.<sup>75</sup> In Bhutan, the youth working poverty rate surpasses the adult rate by 10 percentage points, while in Viet Nam it is higher by 5 percentage points.<sup>76</sup>

#### A PROBLEM OF LIMITED AND MISMATCHED SKILLS

Despite large numbers of unemployed young people and a constantly growing labour supply, many enterprises struggle to fill technical and management positions because they cannot find workers with the right skills, either among university graduates or young people with secondary education. This reflects poor quality education and weak links between education systems and employers—traditional education systems, in particular, have not been able to provide the technical skills demanded by growing economies. Expanding education and improving literacy rates is not enough; only high-quality, relevant education will reduce skills mismatches and youth unemployment rates.

Most secondary education in Asia-Pacific is

still oriented around preparing for an academic education or a white-collar office job. Yet only a small minority of young people can hope to pursue these. Tertiary education systems typically remain focused on public sector employment, even as many private sector employers, the source of much of the growth in jobs, are looking for different sets of practical and applied skills.

For young people who do not continue into tertiary education, vocational education offers better prospects for employability, as it equips students with practical skills and is associated with business needs. But such programmes in some Asia-Pacific countries, particularly in South Asia, are generally inadequate and poor in quality, requiring fundamental rethinking and sweeping reform.

Effective vocational training can help reduce skills shortages on the one hand and unemployment on the other. Skills can be obtained through structured and specialized institutions, on-the-job practical experience or both. Programmes that combine on-the-job and in-class training provide a combination of soft skills (behavioural skills) and hard skills (technical or administrative skills) that can have a significant positive impact

on employment and earnings.<sup>77</sup> Dual training, such as through internships or apprenticeships, allows young people to apply theories learned in class in real environments, to develop professional skills, such as time management and to gain practical experiences.<sup>78</sup>

In Oceania, Europe and East Asia, more than 20 percent of secondary students enrol in vocational programmes, compared to about 2 percent in South Asia (Table 3.13). Shares are also relatively low in the Pacific island states. Almost all low and lower-middle-income Asian countries have 5 percent or fewer secondary students enrolled in vocational programmes. But 10 percent or more are enrolled in high and upper middle-income countries.<sup>79</sup>

Enrolment rates in vocational programmes have increased in the region since 2000, except for in a few already developed countries, such as Australia, Japan and the Republic of Korea, however, most countries do not have effective and well-distributed vocational systems. More relevant education for youth could be offered through stronger links among governments, educational institutes and the marketplace, helping to limit skills mismatches and facilitate school-to-work transitions.

### Vocational training reduces skills mismatches and youth unemployment rates

Youth comprise a large share of global migrants today, with many motivated by economic and social factors, such as employment or education. Others are forced to migrate due to persecution, conflict or natural disaster. According to United Nations estimates, there were 243.7 million international migrants in 2015,<sup>80</sup> among whom 27.9 million were aged 15-24, and 25.3 million were aged 0-14. Combined, these two groups accounted for 21 percent of total international migrants (Table 3.14).

International students seeking education and career opportunities are important contributors to international youth migration. Within Asia, the movement of students has also been a driver of skilled migration,<sup>81</sup> although a few countries have started to become hosts for foreign students, including China, Malaysia, New Zealand, Republic of Korea and Singapore. In 2013, these countries hosted 7 percent of all

**TABLE 3.13:**  
**Regions have wide gaps in vocational enrolment**

%	All persons		Female		Male	
	1999	2013	1999	2013	1999	2013
East Asia	16	22	17	21	16	22
South-east Asia	9	12	8	9	9	14
South Asia	1	2	1	1	2	2
Oceania	36	27	35	24	37	29
Pacific small island developing states	6	6	4	3	8	7
Arab States	14	10	14	8	15	11
Central Asia	7	14	5	13	8	14
Latin America and the Caribbean	10	10	10	10	9	10
Sub-Saharan Africa	7	6	5	5	8	7
Europe	21	24	19	22	23	27
North America	5	7	6	7	5	6
World	11	11	10	10	11	12

Source: UNESCO Institute for Statistics 2015.

**TABLE 3.14:**  
**International migrants tend to be young**  
 International migrants by age group, 2015 (millions)

	0-14 years	15-24 years	25-34 years	35-44 years
East Asia	0.4	0.9	1.5	1.3
South-east Asia	0.8	1.4	3	2.1
South Asia	1.6	1.8	2.6	2.5
Oceania	0.5	0.8	1.4	1.3
Asia-Pacific	3.5	5.1	8.6	7.3
Sub-Saharan Africa	4.8	3.3	3.7	2.9
Latin America and the Caribbean	1.6	1.1	1.5	1.4
Europe	4.3	7.4	14.3	15
North America	3.3	5.8	10	10.6
Central Asia	0.3	0.4	0.6	0.8
Western Asia	6.7	4.3	10.1	8.6
World	25.3	27.9	49.4	47.2

Note: Asia-Pacific includes East Asia, South-east Asia, South Asia and Oceania.

Source: UN DESA 2015a.

### Young migrants are highly vulnerable to physical and social insecurities

international students.<sup>82</sup> In an effort to attract more, some countries are introducing policies such as work rights for students, simplified visa procedures and permission for graduates to seek employment.<sup>83</sup>

Youth are more likely to migrate in search of jobs particularly when there are challenges finding opportunities at home. Many become providers of remittances for their families that can significantly reduce poverty and in the long-term be a driver for economic development. For some developing countries, remittances make a major economic contribution. For instance, in 2014, the share in Nepal was equal to 29.9 percent of GDP.<sup>84</sup> In countries receiving migrants, young immigrants may ease pressures from ageing populations, and help respond to labour shortages and sustain economic growth.

The rural-urban labour migration of young people in Asia-Pacific has increasingly driven the region's rapid urbanization. Many young migrants, however, are vulnerable to exclusion, discrimination and insecurity—as are the typically very young and older people they may leave behind in rural areas. The consequences

are complex, context-specific and subject to change over time.

The absence of legal migration channels or lack of documents forces some young migrants to choose irregular migration, with heightened risk of abuse, health hazards, poor living and working conditions or low wages. So far, the effort to penalize employers or brokers who recruit irregular migrants has been to a large extent insufficient, resulting mainly in penalties imposed on workers themselves. A more effective approach, consistent with human development and rights, is for countries of origin and destination to cooperate on encouraging regular, safe channels for those who wish to migrate.<sup>85</sup>

Trafficking is another major concern. In East Asia, South Asia and the Pacific, 64 percent of trafficking victims end up in forced labour with another 26 percent trafficked for sexual exploitation in 2010-12.<sup>86</sup> Although trafficking in persons usually occurs to internal migrants, 29 percent of persons in forced labour were international migrants.<sup>87</sup> Across the entire migration process, migrant women of all ages face particular risks of abuse, exploitation and violence, including disproportionately low wages, sexual exploitation, and restrictions on leave and movement.<sup>88</sup> Many countries in South and South-west Asia have restrictions on women's migration, which may increase the chances of irregular migration.<sup>89</sup>

With millions of unskilled, young, undocumented and female migrants on the move, protecting their rights and well-being has become a challenge that must be met. Also at stake are potentially large untapped opportunities for channelling remittances towards greater human development returns in labour-sending countries.<sup>90</sup> This will require better migration policies and closer collaboration among all actors, as well as a clearer understanding of specific concerns for youth migrants.

# YOUTH PARTICIPATION: A RIGHT WITH MANY BENEFITS

Youth involvement in democratic processes upholds their rights, and can contribute economic and human development benefits. When more youth voice their perspectives and needs, there is a greater chance that their issues will feature in development planning, budgets and programmes. This can open opportunities to more effectively steer development, given how large a population share youth are in some countries, and, in time, and with appropriate policies and institutions, to increase the demographic dividend.

Since many Asia-Pacific economies are growing fast, they need innovative and dynamic leaders, including youth, who can offer new insights and pioneering solutions to current challenges. Today's youth are more informed than ever before. Many are progressive and forward-looking, and keen to tap into new technologies, products and markets. Their skills and capacities are vital to the kind of transformational change that the region is pursuing.

Further, their unprecedented access to information has raised their ambitions, and facilitated the articulation of demands. The pressure associated with rising aspirations is already driving higher rates of rural-urban migration, a trend only expected to increase as educational, health and economic opportunities become more and more concentrated in large urban centres. Young people today also increasingly see themselves not as passive recipients of favours and privileges, but as carving out a role for themselves in the development process.

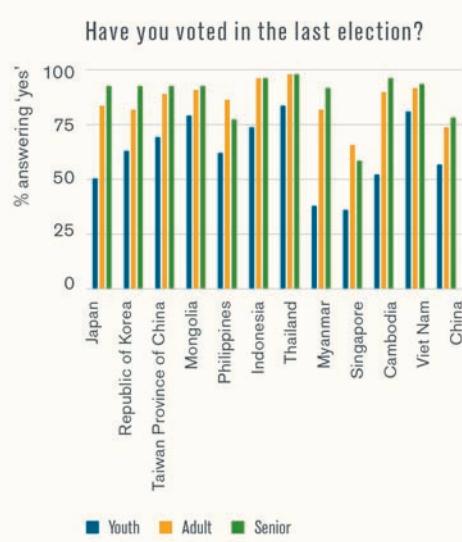
Their expectations of governance are high, particularly in terms of increased transparency, greater social accountability, improved economic performance and greater equality. Pragmatic and concerned with finding better jobs and attaining higher standards of living for themselves and their families, they see democratic governance as a means to that end. For governments to gain youth support and trust, they will need to do more to demonstrate results.<sup>91</sup>

Despite greater recognition of the importance of youth participation, practice lags be-

hind in Asia-Pacific on many fronts. Youth in East and South-east Asia are less likely to vote than adults, for instance (Figure 3.9), and are less active in public affairs.<sup>92</sup> At the same time, they are interested in and knowledgeable about national political and economic issues. They tend to engage through activism and social networks, rather than participating in formal political parties or civic organizations. This may in part be explained by the lack of opportunities to play roles in politics that make a meaningful difference.

Non-participation in elections, however, does not mean that youth are not interested and lack opinions. The 2013 Telefonica Global Millennial Survey showed that youth in Asia-Pacific tend to be more optimistic than those in the rest of the world. Around two-thirds of respondents thought that the economy in the region was headed in the right direction, compared to 50 percent worldwide. Forty-four percent believed that technology is the most important field of study for ensuing personal future success, compared to 36 percent worldwide.<sup>93</sup> Youth were concerned with the environment and upward mobility; they also viewed social inequality

**FIGURE 3.9:**  
**Youth are consistently less likely than adults to vote in elections**



Source: UNDP 2014.

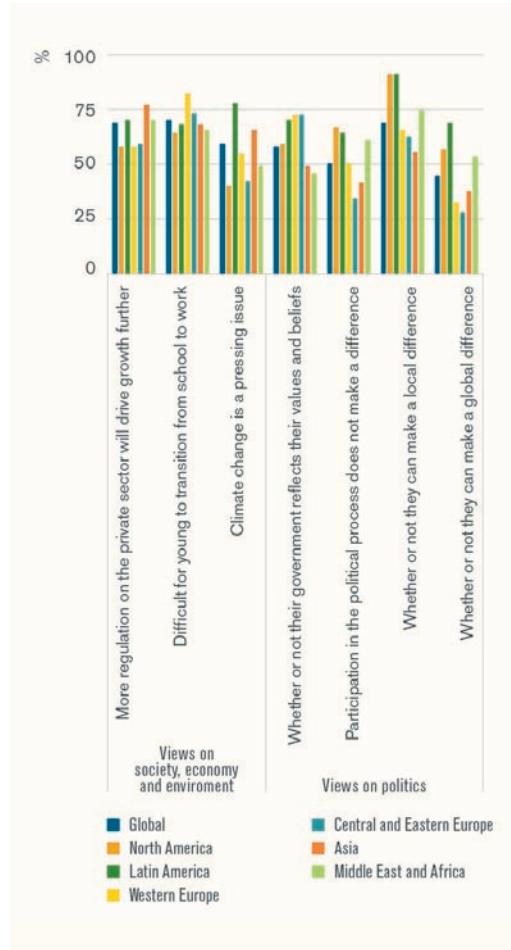
Today's forward-looking youth are keen to tap into new technologies, products and markets

as an important challenge. But they were less likely than youth in other regions to believe in their ability to have an impact locally, globally or politically. Only 37 percent thought that their participation in political processes would be worthwhile, compared to 55 percent to 60 percent in Latin America, the Middle East and North America (Figure 3.10).

To turn around low faith in formal platforms for participation, countries may need to consider new modes for engagement that actively seek to bolster confidence and respond to youth interests. Successful youth engagement strategies rest on genuine opportunities for youth to work with each other and with policy makers in bringing about positive change.

**FIGURE 3.10:**  
**Youth in the region are concerned about many issues, but most do not think participation in politics has an impact**

Asia-Pacific's young people will drive the demographic dividend, but only if supportive measures are in place



Source: Telefónica 2013.

Currently, in many instances, youth feel that they are consulted at an initial stage of development decisions, but are not part of key decisions and programmes later on. Giving them key roles from beginning to end, including in consultations, budgeting, programme implementation, and evaluation and feedback, will require a much stronger degree of commitment from governments, backed by formal mechanisms for continuous involvement.

The notion that youth do not effectively engage, currently widespread among policy makers in Asia-Pacific, underlines the importance of civic education on how political systems work, as has been done in Cambodia and Mongolia (Box 3.8). For the most part, youth civic education is sporadic, however, limited to a few countries and not institutionalized.

## UNLOCKING THE POTENTIAL OF THE NEXT GENERATION

Asia-Pacific's young people will be the driving force behind the demographic dividend and human development in the next few decades, but only if deliberate measures are in place to enhance their opportunities for education, health, decent work and participation.

The quantity and quality of education needs to improve, especially for vulnerable groups, and remain relevant to the demands of the labour market. Health care should be universal, with priorities including further reduction of child and maternal mortality, and access for all to the full range of sexual and reproductive health services. A smoother transition from school to employment would result from easing barriers to starting work, improving flexibility in hiring and job mobility, and encouraging private sector participation in vocational training. Finally, young people need to be fully engaged in civic and political life, and the choices that affect them now and in the future.

## **BOX 3.8:** **Reaching out to youth**

### CAMBODIA:

#### MEDIA PROGRAMMES RAISE AWARENESS

UNDP's Strengthening Democracy Programme, conducted from 2011 to 2015, sought to enhance the civic knowledge and skills of Cambodian youth, and enable them to participate more fully in democratic processes. The programme has its roots in research showing that youth were disengaged, and had limited knowledge of political processes and institutions.

A multimedia partnership with BBC Media Action, locally known as Loy9, produced a radio programme, an online platform, and a popular and entertaining TV show for youth. These aimed at expanding awareness of democratic governance, civic responsibilities, gender equality and other current issues.

Loy9 rapidly became popular among Cambodian youth. One survey found that over half watched the TV programme, and about a fifth listened to the radio broadcast. Together, these programmes reached 2 million Cambodian youth, with even greater penetration in rural areas. Those who watched shows about voting and elections, for example, said that they learned new information, and in recent elections, youth turnout increased.

### MONGOLIA:

#### CIVIC EDUCATION STRESSES DEMOCRATIC PRINCIPLES

In collaboration with UNDP, the Government has embarked on a three-pronged programme to empower youth and increase their participation. First, the academic curriculum was revised to include civic education. The revision stressed democratic principles and human rights. Teachers have been trained to help youth see how democratic governance applies to real-life situations.

The second component focuses on building leadership skills among youth and teaching them to engage with local government leaders on issues impacting community life and well-being, such as the provision of local public services. The third element has mobilized youth groups through social media and other channels to boost awareness of such democratic values as access to justice, freedom of speech and protecting human rights. An international Youth Forum in 2013 highlighted actions to make democratic systems more transparent and accountable, and to pursue peaceful youth activism.

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**Expanding skills  
and education  
requires increased  
public expenditure**

Sources: BBC World Service Trust and UNDP 2010, BBC Media Action, Research and Learning 2014, UNDP 2013.

### PROVIDE BETTER QUALITY EDUCATION AND SKILLS DEVELOPMENT

A good education is essential for human development, including in paving the way for young people to secure decent work. Many Asia-Pacific countries have made impressive gains in education in the last decade, but mainly in primary and junior secondary school. Access to senior secondary and tertiary education, while better on average, still remains extremely low for poorer people. Outside East Asia, education quality is still low and not improving.

**Aim for improved quality:** While the Millennium Development Goals helped accelerate progress in access to education and gender parity, there is less evidence of advances in the quality of education. Quality remains a challenge particularly in public schools, where even secondary

school graduates struggle with basic writing and numerical ability. Teacher shortages pose a serious impediment and could be a starting point for improvements. As against the benchmark of 10 to 20 students per teacher in Europe and North America, the student-teacher ratio is from 20 to 30 students in South-east Asian countries and 30 to 40 students in South Asian countries, with higher ratios in poorer countries. Another priority is to ensure teachers are well trained.

**Boost investment in education:** Low public expenditure partly explains the shortfall in education quality. In 2008, the Oslo Declaration<sup>94</sup> urged governments to spend 4 percent to 6 percent of GDP on education. Only about a third of countries in Asia-Pacific, however, have crossed 4 percent. The share of children and youth does not necessarily determine expenditure. In Bangladesh, Cambodia and Timor-Leste,

**TABLE 3.15:**  
**Some countries with large young populations still invest relatively little in education (%)**

	Share of children and youth in population	Government expenditure on education as a share of GDP
Bangladesh	49	1.8
Bhutan	46	6.8
Cambodia	52	1.8
China	31	4.1
Fiji	46	3.1
India	47	2
Republic of Korea	27	3.4
Kiribati	55	10.9
Malaysia	43	5.5
Nepal	54	3.6
Philippines	52	2.9
Singapore	29	2.9
Sri Lanka	40	1.8
Thailand	31	3.9
Timor-Leste	62	1.6

Source: ADB 2015a, UN DESA 2015a.

## Health-care coverage and performance need to improve to reduce inequities

for instance, where children and youth still make up high population shares, expenditure on education continues to be below 2 percent of GDP (Table 3.15). National allocations to education need to be adjusted, particularly for young countries. At the same time, spending needs to be accompanied by a clear focus on improving quality and learning outcomes, and on distribution, since education finance often still largely benefits better-off groups.

While a majority of countries are providing support for primary and in some cases secondary education, tertiary education is still not available freely. This excludes a substantial segment of society, forcing the majority of youth to go to work instead of continuing their education. Countries can expand access for children from poor families through options such as scholarships and part-time work-study arrangements.

**Be more relevant:** A shift in emphasis towards education that stresses relevant skills and is alert to labour market demands will cultivate a higher quality and more productive workforce.<sup>95</sup> Some countries have introduced work-study

programmes in secondary schools. For instance, Vanuatu's Student Industrial Attachment Program provides work experiences to students so that they can develop real-life problem-solving skills and get a head start on professional development. Malaysia's Technical and Vocational Education and Training seeks to close gaps in the demand for and supply of highly skilled labour. Led by industry experts, the programme facilitates internships in high-technology jobs including in tourism, retail services, urban development, education and health care.

## ACHIEVE UNIVERSAL HEALTH CARE AND SOUND NUTRITION

The Asia-Pacific region has made significant progress in reducing infant and child mortality rates. Progress varies significantly across countries, however, and the region still accounts for a large share of child deaths and child malnutrition. There are still substantial shortfalls in services meeting the specific needs of adolescents. Overall, health-care coverage and performance both need to improve towards the aim of universal provision and the reduction of inequities in health outcomes. Where vulnerabilities are particularly acute, more specific and targeted interventions may be warranted.

Several Asia-Pacific governments, including China, India and Indonesia, have pledged to provide universal health coverage, which is among the targets of the Sustainable Development Goals. Investments in universal access will be vital to support all stages of demographic transition, from a continued decline in infant mortality to care for the elderly.

**Reduce shortfalls in affordability and access:** These are major barriers that deserve early attention in the move towards universal coverage. Currently, a majority of people who can afford it seek health care in private facilities in Asia Pacific. Public services have suffered from many years of neglect and are plagued by challenges such as limited resources, poor administration and lack of available space, although this is not the case in all countries (Box 3.9). Medical insurance systems are still missing, which implies large out-of-pocket health expenses that reduce accessibility, especially for poorer families. In

some cases, a bump in public spending has begun to mitigate these costs. Out-of-pocket payments in India are still high at 58 percent, for instance, but declined 10 percentage points in the last decade, helped by measures such as the free provision of drugs, which account for nearly half of out-of-pocket spending.

The region also needs to rectify the still limited supply of doctors and nurses.<sup>96</sup> Revising national intellectual property legislation could take advantage of flexibilities in trade rules that allow enhanced access to medicines. Public-private partnerships to deliver expanded and/or improved health services could be explored, with due consideration for balancing public and private risks and gains.

Accurate and relevant health information is critical for services to improve their efficiency, cost-effectiveness, quality and safety. Reviewing government policies relevant to health disparities and bringing together data from disparate sources can shed light on effective means to uproot the causes of unequal access to health care.

As appropriate, the decentralization of health services and community participation can help push forward the provision of universal primary health care. For example, decentralization of services to provide immunization, prenatal care and rehydration against diarrhoea have saved many children in developing countries.

**Increase spending on health care:** As recommended by the World Health Organization, in moving towards universal health care, all countries should aim for a minimum health care spending floor of at least 5 percent of GDP.<sup>97</sup> The region on average is above that share, but lags other regions. Health expenditures in Asia-Pacific increased by 17 percent from 1995 to 2012 to an average of 6.7 percent of GDP in 2012, yet the average was 7.7 percent for Latin American countries and 10.1 percent for European ones. Some subregions and countries have yet to hit the 5 percent mark. Among all Asia-Pacific subregions, South-east Asian countries invested the smallest share, about 3.9 percent, while the Pacific countries had the highest share at 9.2 percent. Myanmar at 1.5 percent, Timor-Leste at 2.6 percent and Pakistan at 4.7 percent are among the countries with the lowest shares.<sup>98</sup>

**Promote health equity:** Efforts to improve health care affordability and access and to scale-up investment need to be backed by a reorientation of public policy to explicitly tackle inequities in health outcomes. This should be grounded in health policy itself, with explicit and practical strategies to achieve equity. In New Zealand, for example, guidance has been developed to assist staff working in health planning and funding to incorporate equity considerations during

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**Accurate and relevant health information is critical for efficiency, quality and safety**

### **BOX 3.9:**

#### **Low-cost care and quality medical services improve health outcomes in some Pacific island and other countries**

Several Pacific island countries have set excellent examples of providing state-sponsored health care systems. Out-of-pocket health costs in Kiribati, Tuvalu, Samoa, and Solomon Islands account for less than 10 percent of total health expenditures.

At 17 percent of GDP, the share of public expenditure on health care in Tuvalu is among the highest in the region. From 2007 to 2012, 93 percent of births were attended by qualified medical personnel, and 98 percent of one-year-olds received immunizations. Indicators on child and maternal health are very good, with the proportion of underweight children under the age of five only 1.7 percent, and child mortality at only 30 per 1,000 births.

Brunei Darussalam has high-quality, comprehensive health care that is universal and equitable. An early achiever of the Millennium Development Goal health targets, it has attained commendable progress in child and maternal health care, with 99 percent of deliveries attended by trained staff. Average life expectancy at birth stands at 75 years. High-quality hospitals and clinics are at hand, along with flying medical services for airlifting any citizen in need of emergency care.

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**Immunization saves children's lives and is one of the most cost-effective health interventions**

policy development. Thailand has pursued a deliberate focus on equitable access to medicine and technologies.

Policies in areas outside but closely inter-related with health can also make a difference in ending disparities. Housing, drinking water and sanitation initiatives aimed at improving daily living conditions, for instance, can greatly reduce infectious diseases that are more heavily concentrated among the poor. Education, trade, investment and employment interventions providing equitable access to capabilities and opportunities for well-being can also help, as can social protection across the life cycle. There are roles as well for promoting people's abilities to empower themselves and claim their rights through political and legal instruments.

**Focus investment on a healthy start in life:** Many Asia-Pacific countries, including several in South Asia, need to invest heavily in prenatal and postnatal care, meals at school for children at risk of nutritional deficits, and increased coverage of childhood vaccines and early dental care, which influences overall health. They need to urgently address gender discrimination, especially in access to nutrition and health care, from childhood on. Solutions to some of these issues will require changes in attitudes and behaviours that are rooted in and conditioned by social norms as well as overall economic conditions.

Immunization can save children's lives and is one of the most cost-effective health interventions. It is an essential measure in all countries, but carries an extra rationale in those moving towards the start of the demographic transition. Many countries have made progress on delivering vaccines, yet a third or more of the region's children still do not receive the full set. Coverage is low in India, Lao People's Democratic Republic, Papua New Guinea and the Solomon Islands. Despite being a poor country, Bangladesh has achieved impressive health advances by focusing on selected core interventions, including vaccinations, family planning, oral rehydration therapy, and other maternal and child health services.

Although there is no single cause for child malnutrition in Asia-Pacific, malnutrition among women is a major factor. A woman's

poor health during her own infancy, childhood, teenage and child-bearing years results in low birth-weight children, who tend to be less healthy and are more likely to die prematurely. Another major factor is poor sanitation and open defecation, which, among other impacts, cause children to suffer from diarrhoea and other infectious diseases that reduce the ability to absorb adequate nutrients.

On the other end of the spectrum, developing healthy eating and exercise habits in the first two decades of life are key to avoiding obesity in adulthood. Reducing foods high in saturated fats or salt and providing opportunities for physical activity are important for children and adolescents, and can reduce eventual risks of chronic and debilitating non-communicable diseases.

**Extend services to adolescents:** Across the region, a priority for adolescents, particularly in countries with a growing youth bulge, is access to a full array of youth-friendly health care services. Issues related to homicide, suicide, substance use and abuse, smoking, sexually transmitted diseases and unplanned pregnancies are prevalent among youth. But adolescent health care is still at a nascent stage, and often not recognized as part of national health strategies, at times due to political, religious or social norms. Specific policies for the health care of adolescents need to be in place, coupled with expanded services so that all adolescents can find the care they need for sexual and reproductive health, HIV/AIDS prevention, and alcohol and drug abuse, among other issues. Services need to proactively emphasize outreach and responsiveness to the concerns of adolescents, given the social and economic barriers that may otherwise impede them from seeking care.

#### **TACKLE YOUTH UNEMPLOYMENT**

An astonishing 34 percent of youth in Asia-Pacific are neither in school nor the labour market.<sup>99</sup> Many face long periods of unemployment, which may delay their options to move into adult life, such as by starting a family, and depress lifetime earnings. While job creation for youth is essential, policy makers must give equal attention to the quality of employment and the

scope for entrepreneurial activities, since these will unlock greater productivity, contribute to the demographic dividend and accelerate the pace of human development.

**Smooth the transition to work:** Youth unemployment in many countries largely results from many young people not having the skills demanded by employers. This stems in part from poor quality or poorly aligned educational systems. Policies need to correct this pattern, paying close attention to the transition from education to work, such as by encouraging young people without work to continue their education. Education itself needs to be more skills and career-oriented, and strengthen links to workplaces. Supplementary training may be required so young people become ‘employable’ by industry standards. Opportunities for internships or apprenticeships should be expanded to allow young people to apply theories learned in class in real environments and gain practical experience.<sup>100</sup>

More could be done to shift the current emphasis from ‘job protection’ to ‘security through employability’, including through schools emphasizing technical education and helping to overcome traditional social biases against physical work, which still lead many youth to opt for academic education, even if it lowers chances of getting a job. A process of integrating vocational training into the education curriculum might look towards models such as those in Germany, which has one of the best vocational training systems in the world (Box 3.10).

**Orient economic and labour policies to expand youth employment:** While appropriately training new workers is critical, measures are also needed to create jobs matching their skills. Good coordination among workers, employers and governments can help link education and training policies and programmes with job market demands, and influence job providers to adapt their demands to match skills available. Public policy can play a role in fostering employment-rich economic growth, particularly in sectors most likely to absorb large numbers of young people, and with an emphasis on reaching those who are currently idle or engaged in precarious, informal sector jobs.

Well designed, appropriately funded active

labour policies can support youth employment, such as by offering a comprehensive package of services accessible to all youth, including those who are disadvantaged. Standard support could involve job counselling, job search techniques, mentoring and networking. Japan maintains public employment services for youth that helps them with career counselling and practical vocational training, and supports job matching. One-stop career services centres known as ‘job cafes’ are located throughout the country welcoming youth who may need help with job hunting. Mongolia’s National Programme on the Promotion of Youth Development gathers labour market information and makes it available on an e-labour exchange. It assists with job-matching and placement for students and youth in temporary, contract and home-based work.

**Provide incentives to hire youth.** A number of countries have established these. For example, in China, companies that recruit some proportion of unemployed graduates are qualified to apply for concessional loans of up to 2 million RMB (\$310,000). China also offers tax discounts for young graduate entrepreneurs for their first three years, up to 8,000 RMB (\$1,250) yearly. Mongolia provides a year of wage subsidies to employers for young people above age 16 who are hired from orphanages. The Republic of Korea allows wage subsidies to small and medium enterprises that hire unemployed youth between the ages of 15 and 29; it also grants KRW 800,000 (\$675) to social enterprises that hire unemployed youth. Japan offers employers 40,000 yen (\$320) per month if a young person is hired for three months and for at least 30 hours per week. Some countries also subsidize training for newly hired recruits.<sup>101</sup>

**Ensure that no young person is left behind:** Special attention is needed for young people in conflict zones as they have had limited scope for education and training, and may have been involved in the military or armed conflict for extensive periods of time. Countries in conflict will need to combine policies for education and employment expansion with targeted conflict and post-conflict programmes to enable youth to transition into the labour market.

Special attention is also needed for young

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Education needs  
to be more skills  
and career-oriented,  
and strengthen links  
to workplaces

## BOX 3.10:

### Germany's vocational training system: a model for Asia-Pacific?

Germany's vocational training programmes are recognized worldwide as highly effective. Around two-thirds of high school graduates choose to enter vocational training, an appealing career path for more than 350 occupations. Students have apprenticeships in companies and take classes once or twice a week that complement work experience with theoretical training. Oral, written and practical exams are based on material taught at school as well as on-the-job learning.

Much of the success of the programme is due to meeting multiple needs—among students, businesses and the Government. Students obtain a well-recognized and readily marketable professional certification. A basic monthly stipend of about 680 euros allows them to become independent

at an earlier age than in many countries. In 2013, about 450,000 trainee positions were available, and nearly all of them were filled, demonstrating keen demand.

For businesses, the vocational programme helps identify candidates and employ them at a lower cost. Companies save on training new employees, searching for candidates and advertising for posts. On its side, the Government has been able to meet targets to keep youth unemployment low—it has been beneath rates in all other European countries for decades. This has motivated many European countries, as well as some in Asia-Pacific, such as China, India and Viet Nam, to adapt the German model.

Sources: Young Germany 2013, German Missions in the United States 2016.

### Removing obstacles to doing business can help create jobs for youth

people in remote areas. Protecting the security and welfare of young rural migrants and low-skilled female migrants, as among the most socially and economically vulnerable groups, will enhance their well-being and the potential contributions of migration to human development. Well-managed and implemented social protection programmes should be structured to cover all people across the life cycle, including young workers, and ensure that no one falls through a minimum 'floor' of income and well-being.

**Extend support to youth entrepreneurship.** Young people are creative, enterprising and not afraid to take risks. They bring unique ideas to businesses and markets. Young entrepreneurs often are more aware of and responsive to new market trends, have more faith in other youth and tend to employ younger workers. In the last few years, the number of young entrepreneurs and venture capitalists has increased. An important reason for this trend is that high economic growth rates in China and India have encouraged more Western-trained youth to return home to start their own companies.

Removing obstacles to doing business is an important way to create jobs for youth, especially if coupled with sound management training, advice and mentoring, access to credit and markets,

and labour market reforms. Entrepreneurship development programmes are effective in developing the capacity of youth to start their own businesses, since many have limited knowledge and experience of the processes involved.

Across the region, there has been little emphasis on entrepreneurship development, although Japan offers interesting examples of entrepreneurship education in schools. Its Youth Independence Challenge Plan requires entrepreneurial education that is both participatory and experiential in elementary, junior high and senior high schools, and its Dream Gate service raises awareness among youth about entrepreneurship.<sup>102</sup> In some cases, programmes to cultivate entrepreneurial skills could facilitate the transition from self-employment in the informal economy to microenterprise development in the formal economy (Box 3.11).

**Improve access to finance.** A key barrier to business entry for youth is the lack of financing. Prospects for finding capital for start-ups can be constrained by their brief credit history and limited collateral. Other obstacles include legal and administrative hurdles, red tape, and favouritism that only allows a handful of youth with political connections to thrive in the market, a major loss in terms of the larger youth talent

## **BOX 3.11:** **Bringing youth into business in the Republic of Korea**

In the Republic of Korea, entrepreneurship among young people has declined since the dot-com bubble burst in the early 2000s. In 2000, nearly 55 percent of owners of start-ups were in their 20s and 30s, but that figure fell to 20 percent in 2011. Youth face several challenges to succeeding in venture capitalism. Because the economy is dominated by large conglomerates, small and medium enterprises struggle to find a foothold in a highly competitive environment. Access to finance can be limited. And the education system produces more learners than innovators.

The start-up rate in the Republic of Korea is much lower than in OECD economies with similar income levels. To break this cycle, the Government has taken a number of steps, including by providing generous financial support for youth entrepreneurs, for research and development, and for investments in innovative business products.

Youth Business 1000, for example, was initiated in 2011 to assist young entrepreneurs with exceptional business ideas. The programme opened up youth business curator centres that accommodate up to 1,000 young entrepreneurs, and provided a start-up fund of 1 million won (\$900). Selected participants receive guidance from the Seoul Business Agency and can use programme facilities for up to a year until their business takes off.

In its first year, Youth Business 1000 created 5,892 jobs. It was later extended to involve the Dreaming Youth shop, which sells products from centre graduates at a retail location in downtown Seoul and online. The programme has now successfully assisted over 2,600 young entrepreneurs who have established 1,400 enterprises.

Sources: Ernst & Young 2014, Seoul Solution 2014.

pool and potential business opportunities. Some governments in the region are now assisting young entrepreneurs through different financing mechanisms, including grants, soft loans, subsidies and venture financing. For example, Mongolia offers a one-off grant of up to one million tugrug (\$500) to youth if they start a household-based business or are self-employed.<sup>103</sup>

Crowdfunding is emerging as an alternative tool for young people to stimulate innovation, secure seed money and create jobs. Governments could back crowdfunding with forward-thinking regulations, access to technology, and tools to optimize benefits and manage risks. In addition to improving access to finance for youth, offering fiscal incentives and reducing bureaucratic hurdles can support youth in starting and maintaining their own businesses. Recognizing the importance of fiscal incentives, recently Indian government announced 100 billion rupee (\$1.5 billion) fund, a three-year break from paying income tax on profits, Rs 500-crore (\$75 million) per year credit guarantee mechanism, and exemption from capital gains tax to promote start-ups among young entrepreneurs.

### **EMPOWER YOUTH AS LEADERS OF TOMORROW**

Today's youth are tomorrow's leaders, whether in business, politics, media, academia or non-profit organizations. The more familiar they are with out-of-school, real-life situations and challenges, the better they will be equipped to manage tasks that require maturity and responsibility. Many youth say that they are interested in giving back to their communities or countries, as it gives them a sense of accomplishment.

**Cultivating youth leadership through volunteerism with public benefits.** Volunteer public projects that benefit communities provide youth with multifaceted learning experiences. Young volunteers learn how to solve problems, work together in teams, and execute tasks with limited time and resources. They acquire skills that are not taught in schools but that are highly valuable to future employment. Some may bring to the table new skills, such as those related to technology and youth networking.

There are numerous examples of youth volunteering for community development projects worldwide. For instance, in the Voice of

**Crowdfunding is emerging as an alternative tool for stimulating innovation**

## **BOX 3.12:** **Partnering with youth in public service delivery in the Philippines**

One key concern for youth is quality public service delivery. The Philippines' well-known Check My School programme mobilizes youth volunteers to monitor and report on the resources and facilities of public schools in their local communities. Volunteers work with school administrations to collect a wide range of data, including on the number of teaching and non-teaching staff, instructional materials, computers, budgets and school donations.

This information is stored in a publicly accessible database, increasing transparency and accountability. It also helps in planning and policy making, and in ascertaining school needs. Young Filipinos bring IT and data management skills to the programme, and manage the data platform through a web portal.

Two factors underpin the programme's effectiveness. First, the networks of the Affiliated Network for Social Accountability in East Asia and the Pacific (ANSA-EAP) and the Ateneo School of Government are used to mobilize youth from civil

society organizations and youth groups, as well as socially active individuals. Youth who sign up are given leadership and other forms of training. Second, a significant degree of trust is created by providing youth with access to public documents about educational resources and procurement processes. A Memorandum of Agreement between the Department of Education and ANSA-EAP ensures that partners have access to all of the department's public data, and establishes relationships with local school authorities. This facilitates data collection, but it also demonstrates political commitment to a cooperative relationship between the Government and youth.

Launched in 2011, the programme has been so successful that it has attracted the attention of civil society organizations, international donors and other countries, including Indonesia, Kenya and Moldova, which have expressed interest in adopting the model.

Sources: Check my school 2016, World Bank 2012.

### **Youth offer unique perspectives; their involvement in policy-making should increase**

Kibera project, local youth gathered the voices of poor community members living in Kenya's largest slum. They mapped service provision by collecting data from businesses, health centres, clinics and schools, information that allowed numerous non-governmental organizations and government entities working in the areas to better plan and coordinate their interventions.

In India, young people from labourers' families were trained to conduct a social audit of the National Rural Employment Guarantee Scheme, a large public programme. The young auditors raised specific concerns about financial discrepancies, which led to the recovery of 19 million Indian rupees. The Check My School project in the Philippines is another example (Box 3.12).

**Bring youth into policy dialogues, especially on issues that affect them most.** There is growing consensus that youth can help catalyse better governance overall, with countries increasingly engaging with them on key national topics. About half of Asia-Pacific countries have adopted

national youth policies. More youth are also active in international dialogues, including around Agenda 2030 and the Sustainable Development Goals. International forums discuss integrating youth into mainstream decision-making, such as at the 2014 World Conference on Youth in Sri Lanka, which brought together governments, civil society, academia and youth organizations from over 30 countries.

Youth involvement in public policy-making should increase, particularly in areas where young people are profoundly affected by the choices being made. One priority issue is migration, since in many countries, youth constitute the major group migrating for work. Those seeking low-skilled employment abroad face a host of challenges related to their rights and well-being. Youth should be involved in shaping policies and mechanisms that can safeguard their rights and safety. Similar issues apply to labour standards within countries, where young people make up a large share of workers in factories, the informal sector and various low-wage occupations.

## THE RIGHT START IN LIFE

Young people's choices, capabilities and opportunities have profound impacts not only on their own lives, but also on their societies. While policy makers sometimes see young people as a 'problem' group, a large young population, where youth have the right chances to make their way in life, can catalyse enormous human development gains and the demographic dividend.

Policy decisions can help or hamper this process. A positive childhood, adolescence and youth, with a high-quality education, good nutrition, sound health, ready access to decent employment and an empowered voice in decision-making, can set young people on a successful path. But if many youth end up struggling with

little sense of hope for the future, their potential may be lost—an unjustifiable cost.

Many Asia-Pacific countries are entering a demographic transition, where any dividend depends heavily on young people having the right capabilities and opportunities. This is a critical moment. Decisions made today—about and with youth—will determine the future for everyone. Countries making the right choices will derive tremendous benefits from the energy and idealism of the largest generation of young people in history.



# Chapter 4

AGEING SOCIETIES:  
NEW OPPORTUNITIES TO THRIVE



# 4. AGEING SOCIETIES: NEW OPPORTUNITIES TO THRIVE

People in Asia-Pacific live far longer today than they did a half-century ago, testifying to the success of the region's human development, with its better nutrition, education, health care and economic well-being. As societies age, they face both challenges and opportunities. From a human development perspective, human well-being must extend to all ages and stages of life, a commitment echoed in the call of Agenda 2030 to leave no one behind.

Population ageing is an inevitable consequence of demographic transition. Globally, more than 2 billion people in the world will be over age 60 by 2050; more than 1 billion will live in Asia-Pacific. In 2005, the region, for the first time in its history, had more older people than children under age five.

Given the current speed of ageing in Asia-Pacific, countries have limited time to prepare for an older society. Many will face ageing at lower levels of socioeconomic development than was the case in developed Western countries that aged over a longer period of time, allowing them to become economically prosperous first. A number of Asia-Pacific countries will have to simultaneously juggle traditional human development issues, such as low levels of education and health, and needs for pensions and other forms of support for the aged. Current financial conditions and the narrow window during which these changes have to be made will only heighten some of the complexities.

Growing numbers of older people may contend with issues of income security, access to health services, and community recognition and participation. The traditional family support system is under pressure, a trend intensified by shrinking family size and in some cases the migration of children to cities in search of work. More and more older people will live alone—many will be women, as they live longer. Women as a whole will face greater vulnerabilities,

given disadvantages imposed by gender discrimination throughout their lives. This manifests, for example, in more limited earnings and savings.

The challenges of ageing should not overshadow its opportunities—or the rights of older people, which are the same as for all other age groups. Older people are a vital social resource, and societies do well when they encourage them to share lifetimes of understanding and experience. When countries leave the elderly behind, by contrast, national well-being falters. Countries perform best when they invest in pension systems, access to health care and the social inclusion of older people.<sup>1</sup>

Managing ageing is a complex and dynamic process. Until now, Asia-Pacific governments have mainly focused on youth development, poverty reduction, job creation and the eradication of infectious diseases, paying less attention to the issues of older persons. Given the direction of demographics, however, it is time to begin integrating ageing issues across all elements of national development planning, whether in transport or housing, labour or health care. Ageing is already a serious issue in East Asia. Other subregions have some breathing time—but not much. All countries need to begin preparing for what lies ahead.

## AN ERA OF RAPID AGEING

Asia-Pacific today is ageing more rapidly than all other regions except Latin America and the Caribbean (Figure 4.1). In countries of the West, the doubling of the share of older people, from 7 percent to 14 percent, took about a century, whereas it is occurring in countries of Asia-Pacific over a compressed two to three decades (Figure 4.2). For example, in France, this process took 115 years, compared to a mere 26 in Japan and an expected 18 in the Republic of Korea.

Asia-Pacific has the world's largest number of older people at 489 million, of whom over 209 million live in China. By 2050, the region will have more than 1 billion older people (Table 4.1).<sup>2</sup> The share of older people in Asia-Pacific populations, having doubled from 6 percent in 1975 to almost 12 percent in 2015, is projected to reach about 25 percent of the population by the middle of this century.<sup>3</sup>

Subregionally, the share of older people is currently largest in East Asia and smallest in South Asia (Figure 4.3 and Table 4.1). The level and pace of ageing across the region is diverse, ranging from aged richer countries such as Japan and the Republic of Korea; to rapidly aging middle-income countries such as China, Thailand and Sri Lanka; to several low- or lower-middle-income younger countries such as Cambodia, India, Lao Peoples Democratic Republic and Nepal, which will only start to age rapidly two or three decades from now.

Among countries, the proportion of older people ranged from 4 percent in Afghanistan to over 33 percent in Japan in 2015. Countries with the lowest current shares, aside from Timor-Leste, will likely have larger proportions by 2050, ranging from about 9 percent in Afghanistan to around 25 percent in the Maldives. The older populations of India and China will be around 19 percent and 37 percent in 2050, rising from about 9 percent and 15 percent, respectively (Figure 4.4).

The demographic transition of large and populous countries and territories defines the course of ageing in the region. In 2015, seven Asian countries, namely Bangladesh, China, India, Indonesia, Japan, Pakistan and the Philippines, had 420 million people aged 60 and older, which accounts for 47 percent of people

### BOX 4.1: Who is old?

The United Nations and many demographers use 60 years to refer to older people. In many developed countries, however, age 65 is the reference point for older people and often the age at which people become eligible for old-age social security benefits.

A consistent definition of who is older is further challenged by the changing average human lifespan. Around 1900, people on average lived to between 45 and 50 years in developed countries. Now, life expectancy there reaches 78 years.

Other definitions of 'old' go beyond chronological age. Old age as a social construct is often associated with a change of social roles and activities, for example, becoming a grandparent or a pensioner. It can also be considered a stage at which functional, mental and physical capacities are declining, and people are more prone to disease or disabilities. Discussions with older people in South Africa showed that they associated old age both with experience gained in life and increasing dependence on others. Chronological definitions were not viewed as so important.

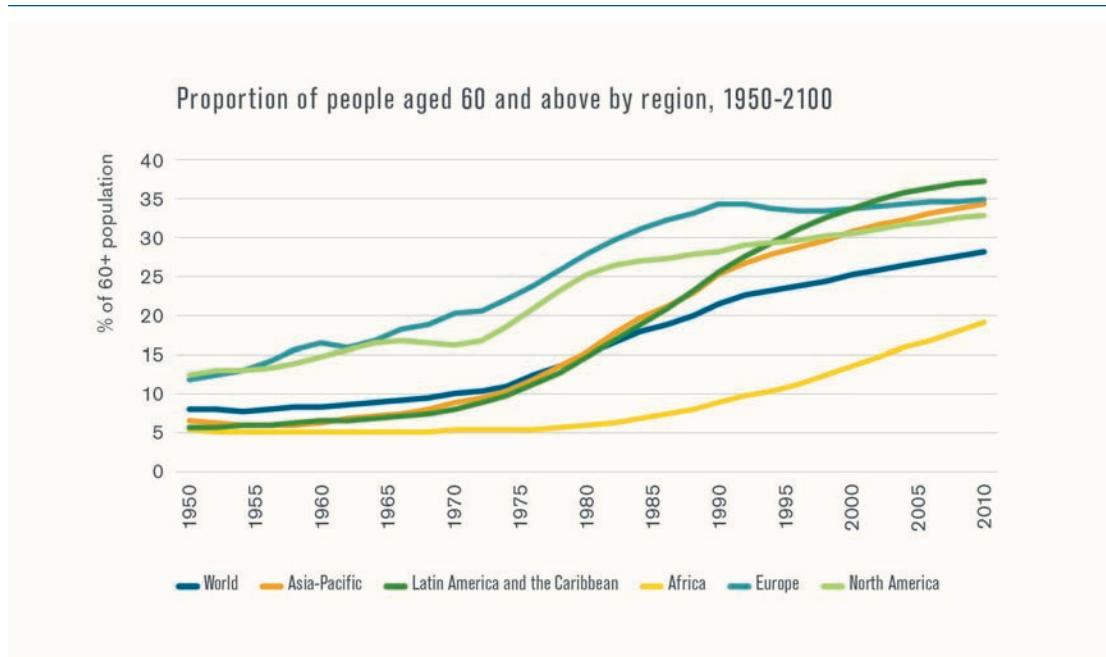
Under any definition, older persons are a highly diverse population group, considering age, sex, ethnicity, education, income and health, among other factors. Recognizing this is required in order to adequately uphold the human rights and address the needs of all older persons, including those who are most vulnerable to poverty, discrimination and other forms of marginalization.

Source: UNFPA and HelpAge International 2012a.

aged 60 and above in the world. By 2050, they will have just over half the global share—more than 1 billion.

The 'oldest old' population, comprising people above age 80, is rising fast in Asia-Pacific, from 0.4 percent in 1950 to 1 percent in 2015. By 2050, the proportion will touch about 5 percent. The number of 'oldest old' will almost quadruple, from 58 million in 2015 to nearly 246 million in 2050,<sup>4</sup> with the largest numbers living in China, India and Japan. Bangladesh, Indonesia, Pakistan, the Republic of Korea, Thailand and Viet Nam will also have signif-

## FIGURE 4.1: Asia-Pacific is one of the fastest ageing regions



Source: Based on UN DESA 2015a.

icant numbers.<sup>5</sup> The growth of the ‘oldest old’ population is currently fastest in East Asia and South-east Asia, but will accelerate from 2030 in all subregions except the Pacific.

### THE FACE OF AGE IS FEMALE

Higher and rising female life expectancy drives the feminization of ageing in Asia-Pacific. Not only do women comprise the majority of older people, but their share tends to increase with age. In 2013, there were 91 males per 100 females 60 years and over. By contrast, the ‘oldest old’ had 69 males per 100 females (Figure 4.5). The ‘oldest old’ sex ratio, however, has increased due to improvements in the health of older men, particularly in East Asia. By 2050, the gender ratio for those 80 years and over is projected to rise to 72 men per 100 women.

The higher life expectancy of women is mainly due to biology as well as some behavioural patterns that, for instance, put young men at greater risk of violent deaths. There is a clear need to incorporate gender dimensions of ageing in public policy and elsewhere, based on women’s longer lifespan as well as the imperative of

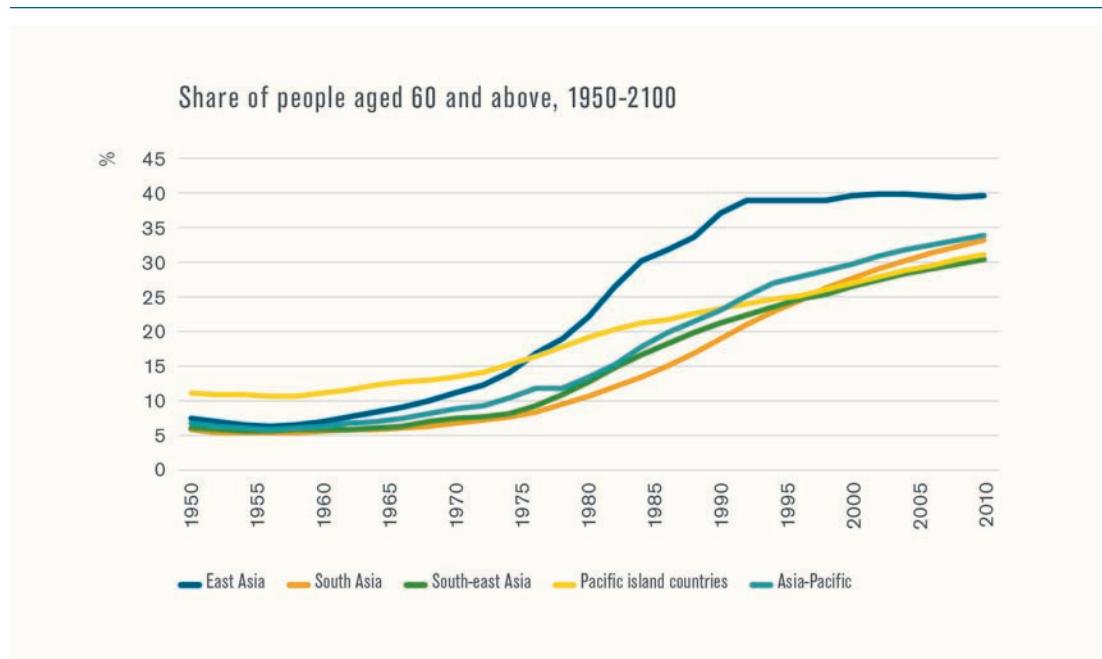
## FIGURE 4.2: A number of Asia-Pacific countries will age in a few quick decades—or less

Number of years required to increase the share of older people from 7 to 14 percent



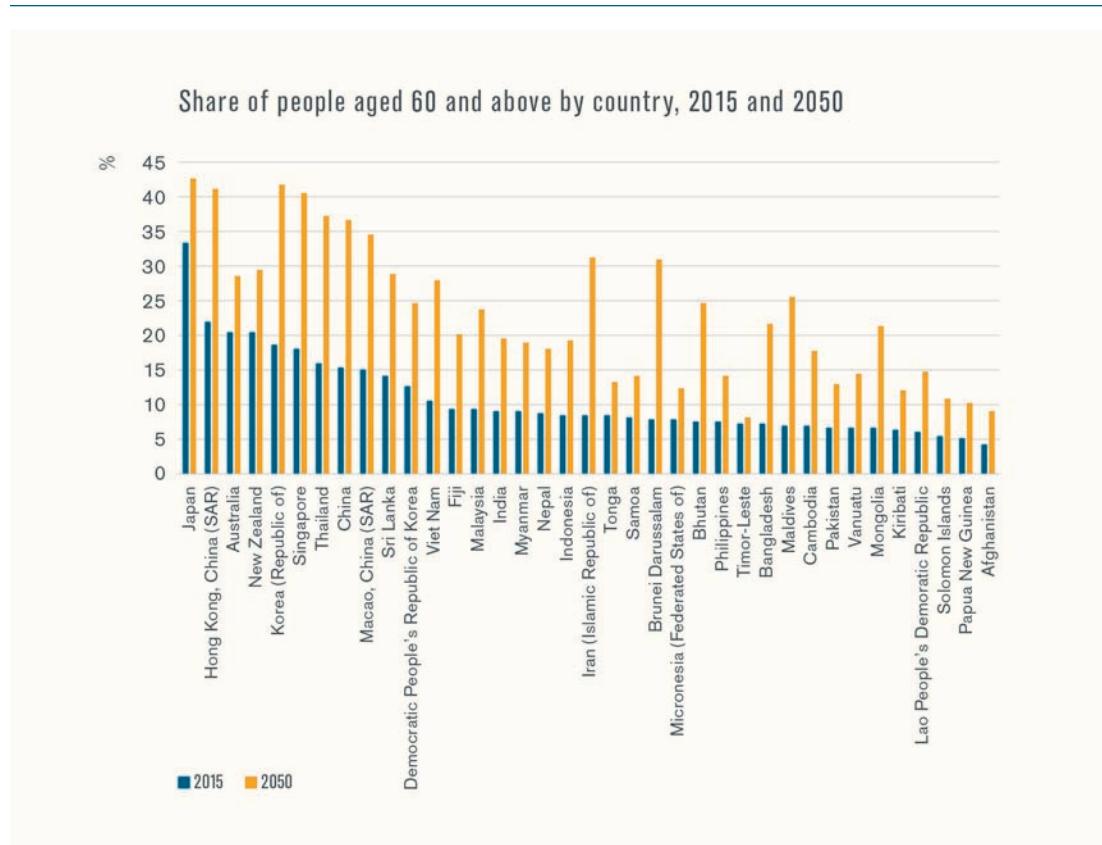
Source: Kinsella and Wan 2009.

**FIGURE 4.3:**  
Ageing will eventually accelerate in all subregions of Asia-Pacific



Source: Based on UN DESA 2015a.

**FIGURE 4.4:**  
Even countries with small shares of older people will see an increase in the coming years



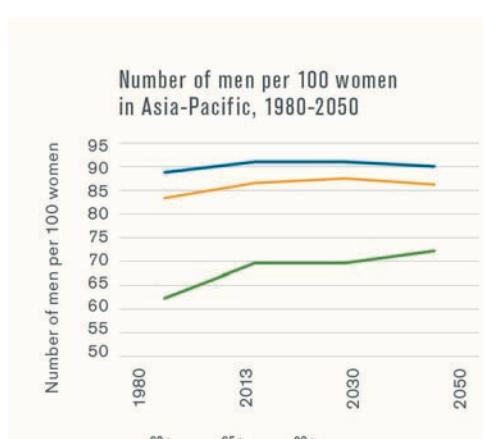
Source: Based on UN DESA 2015a.

**TABLE 4.1:**  
**East Asia is the oldest region and South Asia the youngest**  
Number and share of 60+ people, 1950-2050

	1950		1980		2015		2030		2050	
	Number (in millions)	%								
<b>World</b>	202	8	377	9	901	12	1,402	17	2,091	22
<b>Africa</b>	12	5	24	5	65	5	105	6	220	9
<b>Asia</b>	88	7	168	7	489	12	807	18	1,219	25
East Asia	49	7	90	8	270	17	435	26	578	37
China	40	8	70	7	209	15	358	25	492	37
South Asia	29	6	54	6	153	8	256	12	460	19
India	20	5	41	6	117	9	191	13	330	19
South-east Asia	10	6	21	6	59	9	106	15	167	21
Pacific	1	11	3	12	6	17	10	20	13	23
<b>Europe</b>	65	12	111	16	177	24	217	30	242	34
<b>Latin America and the Caribbean</b>	10	6	24	7	71	11	121	17	200	26
<b>North America</b>	21	12	40	16	75	21	105	26	123	28

Source: UN DESA 2015a.

**FIGURE 4.5:**  
**Women outlive men, especially at older ages**



Source: UN DESA 2013.

systematically responding to gender differences in all areas of life and at all ages.

#### MORE ELDERLY DEPENDENTS

Through demographic transition, the share of older people dependent on working-age people is growing, even as the share of young dependents

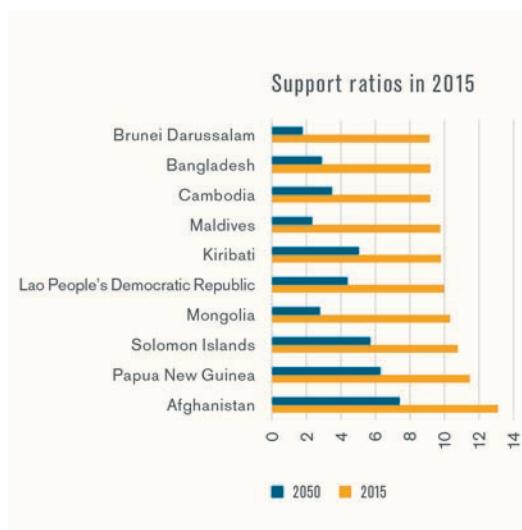
shrinks. The overall dependency ratio, which was nearly 36 percent in 2015, could approach 43 percent in 2050,<sup>6</sup> largely reflecting how the old-age support ratio, or the number of working-age people per older person, is rapidly decreasing. Again, there is considerable variation across countries, however. In 2015, there were about 5 working-age people for each older person in Asia, compared to only 4 for the Pacific island countries. By country, the range extends from 2 persons in Japan to 13 in Afghanistan (Figures 4.6 and 4.7).

About 27 countries have a ratio above 5. Four countries have a particularly high ratio of more than 10—Afghanistan, Mongolia, Papua New Guinea and Solomon Islands, all of which are still fairly young. High-income countries and regions tend to have support ratios below 5, such as Australia; Hong Kong, China (SAR); Japan and New Zealand. They have entered a period of ageing and will continue to see declines in the ratio.

The support ratio of developing countries and territories, while higher than that of developed countries, will likely decrease significantly by 2050, to as low as 1 to 2 persons for Brunei Darussalam; China; the Islamic Republic of Iran; Macao, China (SAR); Thailand and Viet

The number of working-age people per older person is quickly decreasing

**FIGURE 4.6:**  
**Some countries still have a high number of working-age people to support elderly dependents**



Source: Based on UN DESA 2015a.

**FIGURE 4.7:**  
**Older countries have fewer working-age people per elderly dependent**



Source: Based on UN DESA 2015a.

Countries with the lowest shares of young people are likely to have larger proportions of older people by 2050

Nam. Ratios for 12 countries and territories will shrink to 3 or fewer persons. Traditionally, families have been a major source of income security and health care for older people, but this role is becoming less reliable as more women participate in labour markets, birth rates fall, children move away from the homes of their parents, people migrate from rural to urban areas and cultural norms evolve. These forces will increasingly leave older persons bereft of the assistance they received in the past. Falling support ratios do not take into account all of these dynamics, and in reality, it is likely that a significantly smaller number of working-age people may be around to actually help and care for older persons. A further challenge is the estimated global shortage of 13.6 million care workers.<sup>7</sup>

## OLDER SOCIETIES FACE CHALLENGES—AND CAN BUILD ON STRENGTHS

Rapid ageing in Asia-Pacific poses particular issues in terms of human development, including those related to health, housing, poverty and gender. All older people have rights that must be protected, and diverse needs and hopes that should be respected. Many countries have begun to tackle different dimensions of ageing, but there is often scope for more comprehensive understanding and action, including through public policy that recognizes ageing touches every area of life.

### OLD AND IMPOVERISHED

Meeting essential needs for the well-being of older people is among the greatest challenges of ageing, given the continuously decreasing numbers of working-age people and growing pressures on public funds. Poverty rates are higher in many countries among older people,<sup>8</sup> a strong justification for pension schemes, which first emerged in highly developed countries, but have since spread across the globe.<sup>9</sup>

Vulnerability to poverty rises in later life as earnings and employment opportunities

## BOX 4.2:

### Responses to poverty among the elderly are growing but require more attention

**China** faces an urgent challenge of caring for its growing older population, more so because of the legacy of the one-child policy. Among people over age 60, 23 percent or 42 million individuals live below the poverty line, compared with 15 percent of people aged 45-59.<sup>14</sup> With urbanization and the migration of youth to urban areas, many older persons in rural areas in particular lack familial support,<sup>15</sup> despite an expanded social security scheme.<sup>16</sup> A further issue is that while the share of older persons working does not drop below 20 percent until after age 80 in rural areas, it plummets to 20 percent at age 60-64 in urban areas. This causes a significant financial burden with ramifications for older citizens in present and future generations.<sup>17</sup> The need for pension reform to incentivize longer working lives has become increasingly urgent.

Among people aged 65 and older in the **Republic of Korea**, nearly half live on less than half of the country's median household income.<sup>18</sup> This disparity can be attributed not only to early retirement, but also to a young public pension scheme that provides inadequate payments. About 0.26 percent of the 2014 national budget was allocated for services and income for older persons.<sup>19</sup> Older people are provided with a maximum of \$200 each month, which does not, in most cases, cover all medical and provisional expenses.<sup>20</sup> Some of the consequences have been severe, including a tripling in the suicide rate of older persons since 2000.<sup>21</sup>

Until 2009, **Thailand** had a domestic social protection scheme for underprivileged older persons. It was restricted to individuals who were abandoned, lacked a caregiver, were unable to work or did not have enough income to meet necessary expenses. The system fell short of universality, and implementation was difficult given Thailand's expansive informal sector, which involves 76 percent of the

population.<sup>22</sup> In 2009, a universal pension infrastructure was established, closing the eligibility gap.<sup>23</sup> The monthly payment of 500 baht, however, is considered insufficient. The Government has committed to finding new sources of income to raise payments to the national poverty line of 1,453 baht.<sup>24</sup>

#### ALTERNATIVE OPTIONS

A growing share of older people requires identifying financing options to assist those who are poor and vulnerable. Cash benefits can be one option,<sup>25</sup> an approach taken in **Canada** for individuals aged 65 and over. It uses a combination of a universal demigrant (a grant based on demographics), a negative income tax and an earnings-related pension.<sup>26</sup> The demigrant, known as Old-Age Security, is available to any Canadian citizen or legal resident who has resided in Canada for more than 10 adult years and is 65 and older. Eligibility is not restricted to individuals without an earnings-related pension.<sup>27</sup> The negative income tax, known as the Guaranteed Income Supplement, provides a monthly non-taxable benefit to Old-Age Security recipients whose annual income falls below the maximum annual threshold.<sup>28</sup>

These two elements have built an income floor for all older persons, regardless of income level and labour force participation, a feature particularly important for women, who move in and out of the labour force at higher rates than men, and who are more likely to work in informal sector jobs. The third component is contingent on income. Known as the Canada/Quebec Pension Plan, it consists of benefits based on total contribution amounts and duration.<sup>29</sup> This combined approach with multiple transfer channels may offer a way forward for countries in Asia-Pacific.

Rapid ageing  
in Asia-Pacific poses  
challenges related  
to health, housing,  
poverty and gender

Sources: Peking University 2013, Vansant 2015, Shon and Palley 2014, Novak 2015, Harlan 2014, ILO n.d., Suwanrada and Wesumperuma 2013, HelpAge International 2009, Osberg 2001, Financial Consumer Agency of Canada n.d., Government of Canada, Priebe and Howell 2014.

decline, due to factors such as deteriorating health, mandatory retirement and discrimination by employers.<sup>10</sup> Gender discrimination and socioeconomic marginalization are other issues, as is the inherent generational disadvantage of people who spent their working lives in countries when they were at a lower level of human development and may have lacked basic capabilities to build wealth and prepare for old age. Because social insurance programmes, including

pension schemes, have limited coverage in the region's developing countries, older people face significant risks of impoverishment unless they have accumulated adequate savings and wealth.

The 2004 Viet Nam Household Living Standard Survey concluded that not only are many older persons poor, but their presence in a household drives up its poverty as well.<sup>11</sup> In Sri Lanka, a U-shaped relation between poverty and age suggests that poverty declines until ages

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**Vulnerability  
to poverty increases  
in old age, especially  
for women**

55–64 and increases thereafter.<sup>12</sup> In the Republic of Korea, despite very low overall poverty rates, nearly half of people above age 65 live below the poverty line.<sup>13</sup> Box 4.2 sketches issues in China, the Republic of Korea and Thailand.

The older people get, the poorer they tend to become. In Indonesia, the poverty rate increased from 13 percent among the 60-plus population to 15 percent among those aged 75 and above in 2012.<sup>14</sup> Many older people subsist just above the poverty line—and when the poverty line is increased by only 50 percent, the proportion of elderly poor shoots from 13 percent to 42 percent. Poverty rates are higher in rural areas, at 17 percent, compared to urban areas, at 11 percent. A contrary pattern, however, operates in some provinces outside Java in Indonesia, where old-age poverty rates are below those of the non-elderly. This may be explained by cultural habits, earning possibilities, family structures and regionally specific migration patterns.<sup>15</sup>

Among older persons, women are more at risk of poverty, often as a result of lower pension coverage, lower income and fewer benefits.<sup>16</sup> Men hold a larger proportion of paid jobs, while women perform a larger proportion of unpaid care and voluntary jobs,<sup>17</sup> and earn 33 and 20 percent less than men in South Asia and the rest of Asia-Pacific, respectively, in paid employment during the period 2008–2014.<sup>18</sup>

For many women, a lifetime of gender discrimination crosses with age discrimination, leaving them with far fewer tools to manage the vicissitudes of ageing, and resulting in the ‘feminization’ of poverty among the elderly.<sup>19</sup> Women still carry more than half of the work burden at home,<sup>20</sup> and many face employment interruptions due to childbearing and care responsibilities.<sup>21</sup> They comprise a larger proportion of workers in the less remunerative agricultural and informal sectors, have less education and participate in the labour market at lower overall rates.<sup>22</sup>

In South-east Asia, older men have more income from a greater variety of sources than older women, including pension schemes and investments. They are more likely to work, whereas older women tend to depend more on social sources for income, whether from spouses or relatives, or through public provision.<sup>23</sup> Women in general who are widowed, divorced, separated or never married, or who do not have

children, are particularly vulnerable to poverty in old age.<sup>24</sup> Since women, on average, live longer, they have a greater chance of becoming impoverished as they age. Rural women fare worse than rural men as well as urban women and men.

Some countries have begun to pay special attention to older women, because their numbers and vulnerabilities are greater. In the Republic of Korea and Indonesia, the National Plan of Action for Older Persons’ Welfare contains provisions for special education and training initiatives for older women, and health programmes specifically targeting them, as well as policies aimed at increasing women’s employment opportunities.<sup>25</sup>

#### **AT RISK OF DISCRIMINATION, IN NEED OF PROTECTION**

Older men and women have the same rights as everyone else. Yet ageism<sup>26</sup> and age discrimination are widespread. Negative attitudes towards old age and older people are deeply ingrained in many societies. Unlike other forms of prejudice and discriminatory behaviour, these are rarely acknowledged or challenged, leading to isolation and exclusion.<sup>27</sup> Many people fear the ageing process and old age itself, suggesting the need for measures encouraging new perspectives on older age as a time of opportunity, not just a stage of life to be feared.

Older people can be highly vulnerable to deprivation, exploitation and abuse, including in their own homes as well as in institutional facilities. They may be denied the right to make decisions about their personal finances, property and medical care,<sup>28</sup> or lose out on social security entitlements, access to health and opportunities to work.<sup>29</sup>

Discrimination and exclusion linked to age may intersect with other forms, based on factors such as gender, ethnic origin, disability, income, sexuality, HIV status or literacy levels. The result of any type of discrimination is a narrowing of individual choices and freedoms. It also eats away at a country’s progress and prospects for human development. There is clear evidence, for example, that when older people’s right to social security is realized, poverty rates fall, as does child labour, while enrolment rises in schools.<sup>30</sup>

Among international efforts to help fight

## **BOX 4.3:** **A plan of action for older people**

Adopted by 159 countries in 2002, the Madrid International Plan of Action on Ageing offers a bold agenda for addressing ageing in the 21st century. It focuses on three pillars: older persons and development, advancing health and well-being into old age, and ensuring enabling and supportive environments. It puts forward a number of recommendations. Chief among these are to promote the participation of older persons as citizens with full rights, and to ensure that people everywhere can age with security and dignity.

Under the first pillar, the Plan of Action calls for countries to encourage the participation of older people in policy-making, and factor ageing dynamics into employment and social protection policies. Recommendations under the second pillar stress health promotion and well-being throughout the life cycle, geriatric and gerontology training for health-care providers, self-care and support systems, and

responding to HIV and disabilities among older people. The third pillar emphasizes affordable and accessible housing, and a liveable environment that includes the emotional and psychological security of a home and a community that enables older persons to live independently.

The Plan of Action is the first global agreement recognizing older people as contributors to the development of their societies, and committing governments to including ageing in all social and economic development policies, including poverty reduction programmes. It implies that governments, non-governmental organizations and others need to reorient the ways in which their societies perceive, interact with and care for their older citizens. This includes viewing them as agents rather than just objects of change, and as contributors to, not just beneficiaries of economic and social development.

Source: United Nations 2008.

old-age discrimination, the Political Declaration and Madrid International Plan of Action on Ageing so far provide the most comprehensive basis for empowering older people and guaranteeing appropriate social protection (Box 4.3). With the exception of high-income countries, however, most other Asia-Pacific nations are severely underprepared to support and protect their older people. Existing old-age social protection systems generally have low and uneven coverage, and limited benefits. Challenges vary, but for most countries, the top priorities are to expand coverage, raise benefits, and do so in an equitable and sustainable way. This will require major improvements in current institutions, especially in the delivery of health services, cost control and pension management.

Across Asia-Pacific, 40 percent of countries now have overarching legislation on older persons.<sup>31</sup> Australia has the Aged Care Act, the Age Discrimination Act, and the Home and Community Care Act. The Japanese Government has incorporated disability prevention services into long-term care benefits and is exploring ways to promote independent living. India, Nepal, the Philippines and Viet Nam have all adopted national legislation on older

persons, while several Asia-Pacific countries have a national policy, strategy or plan on ageing and/or older persons.<sup>32</sup>

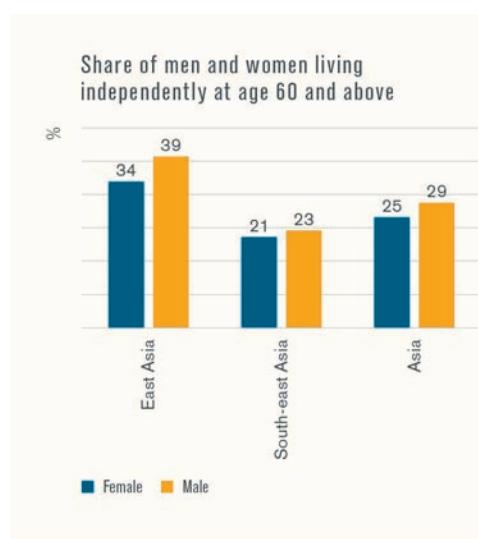
Only a few countries have specific legislation to protect older persons against abuse. One such initiative is the Australian National Aged Care Advocacy Programme, which provides free and confidential services to promote and protect the rights of people receiving residential and community care services. In Japan, the Act on Prevention of Elder Abuse, Support for Caregivers of Elderly Persons focuses on early detection and response to abuse.<sup>33</sup>

### **MORE LIKELY TO LIVE ALONE**

Living alone in old age is typical in developed countries. In developing countries, older people still generally live in multigenerational households. On average, around three-quarters of those aged 60 years or over in less developed regions live with their children and/or grandchildren, compared with about a quarter of older people in more developed regions.<sup>34</sup>

Practices have begun to shift, however, driven by changes in family structures. More than a quarter of people 60 years and above in Asia now

**FIGURE 4.8:**  
**Shifting practices mean many older people live independently**



Source: UN DESA 2013c.

### As societies age, major causes of death shift from infectious to chronic non-communicable diseases

live independently (Figure 4.8), among them, a slightly higher proportion of men than women. Cultural norms and/or men's greater economic independence may explain this phenomenon.

Although co-residence of older people with adult children is higher in East Asia, Southeast Asia and the Pacific, it has declined significantly over time in some countries. In China the rate for people ages 65 to 70 fell from 66 percent in the early 1980s to roughly 43 percent by 2011. In the Republic of Korea, the rate for people 65 years and older decreased from more than 80 percent in 1980 to below 30 percent by 2010.<sup>35</sup>

Both Japan and the Republic of Korea have experienced a pronounced attitudinal shift, with diminishing acceptance of the idea that children should be responsible for the care of older parents. In Thailand, working-age adults anticipate receiving less support from their offspring than they have provided for their own parents.<sup>36</sup>

### INCREASING HEALTH-CARE NEEDS AND COSTS

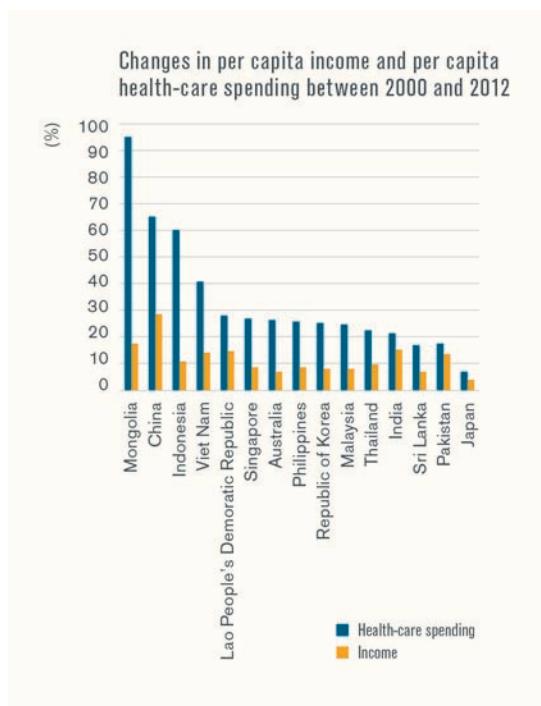
While longer life expectancy signals improved well-being and human development progress, maintaining good health at older ages can be challenging. As societies age, major causes of death and disability shift from infectious to

chronic non-communicable diseases. Globally, 85 percent of people aged 60 or above died from these in 2008. They account for 90 percent of deaths in Australia and New Zealand, and 80 percent in Japan, the Republic of Korea and Singapore.<sup>37</sup> They caused 76 percent of deaths in East Asia, Southeast Asia and the Pacific in 2008, and the share is projected to rise to 85 percent by 2030.<sup>38</sup> Since 2000, deaths from non-communicable diseases have risen significantly in larger developing countries, such as China, India, Indonesia, Pakistan, the Philippines and Thailand. In the Pacific, these diseases are widespread as well, causing an increasing share of premature death.<sup>39</sup> Particular difficulties in the Pacific island countries relate to providing intensive care and treatment for populations scattered across different islands.<sup>40</sup>

Health-care costs tend to escalate with increasing shares of older people, since they use more services<sup>41</sup> and require more expensive treatment, including for non-communicable diseases.<sup>42</sup> A World Health Organization (WHO) report on 23 low- and middle-income countries estimated an economic loss of \$83 billion from heart disease, stroke and diabetes alone from 2006 to 2015.<sup>43</sup> Asia-Pacific's health-care costs have rapidly increased in recent years,<sup>44</sup> outstripping even historically quick rises in income. This exerts significant pressure on government treasuries that will likely continue to grow, especially without advances in more efficient and affordable technologies. Several countries have begun to stress prevention strategies, including through promoting healthy lifestyles to, for example, curtail obesity, which can lead to high blood pressure, diabetes and other chronic conditions.

Between 2000 and 2012, many Asia-Pacific countries registered a rapid increase in per person health-care spending at a rate far above the world average. In high-income countries, except Japan, costs rose by more than 200 percent. They climbed even more dramatically in middle-income countries—over 400 percent in Viet Nam, for example—and skyrocketed nearly 10 times in Mongolia (Figure 4.9). Japan, on the other hand, provides an excellent health-care system where every individual is covered under an insurance programme through their work or a community insurer, and the Government

**FIGURE 4.9:**  
**Per capita health-care expenditure has risen rapidly in the region**



Source: Feng 2014.

covers those who cannot afford insurance. The Government helps keep costs low by monitoring the prices of all drugs and medical procedures.<sup>45</sup>

Universal health coverage has been a goal of the international community since 2010, as reiterated in Agenda 2030. A United Nations General Assembly<sup>46</sup> resolution in 2012 urged all governments to move towards providing all people with access to affordable, quality health-care services. Realizing this goal is crucial for an ageing population, given the higher incidence of disease and disability.

Currently, most Asia-Pacific countries provide public health care, but without much emphasis on older people. Particularly in low- and middle-income countries, health systems are poorly designed to meet their chronic and complex care needs. Government policy still heavily emphasizes the care of children and adults. While heart disease and stroke result in the loss of many years of life, and high blood pressure is a key treatable risk factor for these diseases – only 4 percent to 14 percent of older people in low- and middle-income countries

receive effective treatment.<sup>47</sup> They are far less likely to receive psychological therapies for mental illness and more likely to be prescribed medication.<sup>48</sup>

These tendencies raise issues of equity, suggesting that in the move towards universality, health systems will need to both provide a younger population with curative interventions, and adapt so that older people also have high-quality, safe care, beyond the hospital setting, including for chronic non-communicable diseases and disabilities.<sup>49</sup>

Inequities in access to health care also relate to costs. Out-of-pocket health expenses can be high, particularly for older people who are poor and/or are no longer working. Among 13 Asian countries and territories with 55 percent of the region's population, social medical insurance schemes and out-of-pocket payments are actually regressive in some cases, in that the wealthy pay a smaller share of their income to fund them.<sup>50</sup>

Asia-Pacific countries have been making some efforts to address the health challenges of older people—80 percent have policies, programmes or plans backing accessible and affordable health-care services,<sup>51</sup> although wide differences prevail in implementation. Several countries and areas have universal health-care systems in place, with some offering free access to public health care for all citizens, such as Australia, Brunei Darussalam; Japan; Macao, China (SAR); Malaysia; New Zealand; the Republic of Korea and Singapore.

Some countries and areas, such as China; Hong Kong, China (SAR); the Philippines and Sri Lanka, are making efforts to reform their health systems to reach universal coverage in the near future, including through a deliberate emphasis on older people. China has established a national database and information centre for older people that offers specialized expertise. Other recent reforms include the National Cooperative Medical System, a rural insurance system to protect the health of farmers. Pilot-tested in 2003, the programme was extended and covered 802 million people by 2013.<sup>52</sup> The Philippines has recently moved to universal health coverage of older persons through its state-owned Philippine Health Insurance Corporation (Box 4.4).

Countries have increasingly recognized the importance of promoting self-care for older

**Older people use more health-care services and require more expensive treatment**

## **BOX 4.4:** **Attaining universal health-care coverage for older people in the Philippines**

Since 2014, all citizens aged 60 and above in the Philippines have had automatic health-care coverage through the government-owned Philippine Health Insurance Corporation (PhilHealth). It now covers over 6 million older people.

The Government established PhilHealth as part of a drive for universal health care. The corporation also administers the National Health Insurance Programme, which provides basic health coverage and quality health services for all Filipinos. In recent years, it has expanded benefits to cover specific groups such as people with disabilities. As of December 2013, PhilHealth covered 76.9 million Filipinos.

Contributing to the PhilHealth fund is mandatory for all Filipino workers employed by private businesses and the Government as well as those employed overseas. People aged 60 and above who are working and earning more than the poverty threshold of income also contribute, helping make universal coverage feasible.

Source: Philippines Health Corporation 2014.

Pensions are important guarantees of income security and well-being for the elderly

persons. For example, Thailand has established elderly clubs in all provinces that encourage self-care and social participation. Very few countries have tackled disabilities or HIV among older people, although the Republic of Korea has established a community-based rehabilitation system for older people with disabilities.<sup>53</sup>

### **PENSION SYSTEMS STRUGGLE TO KEEP UP**

Pensions are important guarantees of income security and well-being for the elderly. Amid rapid population ageing in Asia-Pacific, countries need to make sure that public pension systems are designed to meet the needs of older people, and provide them with sufficient resources to live a life of dignity. Because social pensions entail public money, they invoke issues related to budget priorities, coverage, adequacy and sustainability. These in turn are framed by human rights principles inherent to human well-being, and the need to steer the economy on a steady

course by protecting against fiscal deficits.

Given relatively rapid development, public pension systems in Asia-Pacific tend to be fragmented and complex, not having had time to evolve into more integrated and mature systems. In one of the region's most advanced countries, the Republic of Korea, a pension system was only created in 1988. In China, the basic old-age insurance programme for non-public sector employees was established mainly in 1997 (Box 4.5). In Indonesia, it was only in 2004 that a law was enacted to establish a comprehensive social security programme.<sup>54</sup>

According to the World Bank classification, pensions can be put into five pillars. Pillar 0 characterizes social pension that is typically funded from the national revenue to ensure minimum income security at old age and combat poverty. These programs are non-contributory in nature and could be targeted towards some specific groups or be universal, depending upon budget availability. Pillar 1 involves mandatory publicly managed schemes including defined benefits where the amount of pension is connected to individual earnings and defined-contribution scheme where individuals also contribute to the pension. Pillar 2 characterizes privately managed mandatory savings with various investment options, while Pillar 3 consists of privately managed voluntary savings. The final Pillar constitutes of non-financial assets including home-ownership, non-cash savings, and family support.<sup>55</sup>

Most Asia-Pacific countries have contributory pension schemes, either a defined benefit or defined contribution scheme, or a combination of the two (Table 4.2). Contributory systems cover only a small segment of the population, however, mainly public servants and employees in the formal sector. Even for employees in the latter, programmes are often broken down by type of employment, public or private, and sometimes by social status, such as whether someone is a migrant or not.

Both defined benefit and defined contribution systems are inherently inequitable, in that they are available only to some people, generally those with better employment and more means. With defined contribution systems, which require employee contributions, the poor and lower cadre staff may not be able to make adequate contributions, which could deprive them of an

## **BOX 4.5:** **China moves towards universal social security for older people**

In recent years, China has initiated various social protection measures aimed at universal pension coverage. Before 2009, it mainly had two mechanisms for income security among older people: one for civil servants and other employees, based on employer contributions, and another for urban workers, based on social insurance principles. Together, the two schemes covered around 250 million people in 2008, about 23 percent of the population aged 15 and above.

Starting in 2009, China established the New Rural Pension Scheme, and in mid-2011, it announced a national pilot Urban Residents Pension Scheme. These measures were aimed at completing a national framework for universal pension coverage. Participation is voluntary. To encourage people to join, the pensions consist of two components: a social pension paid by the Government, and an individual savings account financed jointly by individuals, collective entities such as state-owned enterprises and the Government. A minimum level set for the social pension can be higher if local governments can fund it.

By the end of 2013, between the pre- and post-2009 schemes, 850 million people, nearly 75 percent of the population aged 15 and above, was covered by a pension.

To address issues of adequacy, equality and sustainability in the schemes, in 2013, China embarked on a number of major reforms. These have included merging the two newer schemes to equalize entitlements, allowing 'portability' so that entitlements can move between the merged schemes and others, and converting employers' liability for civil servants into a social insurance pension scheme.

The Chinese experience shows that if there is political will, extending pension coverage to all citizens within a very short period is feasible. It also demonstrates how combining contributory schemes and non-contributory social pensions may be an effective way to achieve universality.

Source: ILO 2014a.

adequate pension in old age.

As a step towards universal public pension coverage, many countries have established some form of publicly funded social pension, varying in coverage, sufficiency and cost (Table 4.3). Social pensions are an important way to extend coverage to those without access to contributory pension systems and provide the elderly with protection against poverty. The growing importance of these programmes responds to rapid ageing, low coverage of contributory pension schemes, a large informal sector and the weakening of traditional family support systems. Coverage now exceeds that of contributory systems, which reach only around 20 percent of the elderly.

Malaysia, the Philippines, the Republic of Korea, Thailand and Viet Nam all have social pension programmes, but most provide limited support, for which a means test, either by income or age, is required. In Viet Nam, only those aged 85 and over and without pensions are eligible, and the current payment level is about \$7.50 per month. Nepal's monthly social pension is just

\$5, and surveys of elderly persons have found complaints with paltry sums.<sup>56</sup>

Globally, just over half of people above the legal retirement age receive pensions.<sup>57</sup> Coverage is as low as 22 percent in Africa and as high as over 90 percent in North America, Western Europe, and Central and Eastern Europe (Figure 4.10).<sup>58</sup> Where many people work in informal employment, are self-employed or are under temporary contracts, a smaller proportion of people will receive pensions.<sup>59</sup> Many more can rely only on family support or savings they have cobbled together.<sup>60</sup> Migration introduces another dimension. While young people who have moved away from rural areas to live in cities may become eligible for participation in public pension programmes, large numbers of older people left behind in the countryside are not entitled to benefits based on employment.<sup>61</sup>

In Asia-Pacific, pension coverage, including by non-contributory pensions, hovers around the global average of about 47 percent, but falls sharply to just over 32 percent if China is exclud-

Pension systems  
are still weak and  
fragmented in  
the region

**TABLE 4.2:**  
**Most countries in Asia-Pacific have contributory pension schemes**

MODALITY OF PILLARS			
	Pillar 0 *	Pillar 1 **	Pillar 2 ***
<b>East Asia</b>			
China	Targeted Programme	Defined Benefit	-
Hong Kong, China (SAR)	Universal	-	Defined Contribution
Japan	Basic	Defined Benefit	-
Korea, Republic of	Basic	Defined Benefit	-
Mongolia	Universal	National Defined Contribution	-
<b>South-east Asia</b>			
Brunei Darussalam	Universal	Provident Fund	-
Cambodia	"	"	"
Indonesia	-	Provident Fund	-
Lao People's Democratic Republic	-	Defined Benefit	-
Malaysia	Targeted Programme	Provident Fund	-
Philippines	Basic	Defined Benefit	-
Singapore	-	Provident Fund	-
Thailand	Universal	Defined Benefit	-
Timor-Leste	Universal	-	-
Viet Nam	Targeted Program	Defined Benefit	-
<b>South Asia</b>			
Afghanistan	"	"	"
Bangladesh	Targeted Programme	-	-
Bhutan	"	"	"
India	Targeted Programme	Defined Benefit, Provident Fund	-
Maldives	Universal	-	Defined Contribution
Nepal	Targeted Programme	Provident Fund	-
Pakistan	-	Defined Benefit	-
Sri Lanka	-	Provident Fund	-
<b>Oceania</b>			
Australia	Targeted Programme	-	Defined Contribution
Fiji	Targeted Programme	Provident Fund	-
Kiribati	-	Provident Fund	-
Marshall Islands	"	"	"
Micronesia, Federated States of	-	Defined Benefit	-
New Zealand	Universal	-	-
Palau	-	Defined Benefit	-
Papua New Guinea	-	Provident Fund	-
Samoa	Basic	Provident Fund	-
Solomon Islands	-	Provident Fund	-
Tonga	"	"	"
Vanuatu	-	Provident Fund	-
<b>Notes:</b>			
* Pillar 0: Often called 'social pensions' in recognition of their social policy goal of offering a minimum income in old age. Targeted programmes pay benefits only to older people with the lowest incomes. Basic pensions refer to either a flat rate or a sum dependent on years of work. A universal social pension is a non-contributory, non-earning-related scheme for all people above a certain age.			
** Pillar 1: Mandatory publicly managed schemes include: defined-benefit schemes with a formula directly relating retirement incomes to individual earnings; notional defined-contribution schemes, where benefits depend on contributions made and notional interest credited to individual accounts; and provident funds/publicly managed defined-contribution schemes, where benefits depend on the amount of contributions and the investment returns they earn.			
*** Pillar 2: Mandatory privately managed schemes that are either fully funded or are defined benefits schemes.			

**TABLE 4.3:**  
Social pensions are an important way to extend access, but most are still limited in their support

Country	Social pension	Targeting method	Age eligibility (years)	Proportion of 60+ receiving pensions (%)	Amount (% of income per capita)	Cost (% of GDP)
Bangladesh	Old age Allowance	Means-tested	65	31	8.3	0.12
India	Indira Gandhi Old Age Pension	Means-tested	60	12	6.8	0.05
Korea (Republic of)	Basic Old Age Pension	Means-tested	65	68	4.7	N.A
Nepal	Old Age Allowance	Universal but pensions-tested	70 (60 in some areas)	80	17.3	0.35
Philippines	Expanded Senior Citizen Pension	Means-tested	60	N.A	N.A	0.1
Thailand	Old Age Allowance	Universal but pensions-tested	60	73	4.5	0.33
Viet Nam	Social Pension	Pensions-tested	80 (60 for some categories)	10	6.5	0.05

Source: Asher 2012.

ed. Coverage ranges from almost 1 percent in Papua New Guinea and Tonga to 100 percent in Mongolia and Timor-Leste. Coverage in Nepal, a least developed country, is higher than in some middle-income countries such as Malaysia and Sri Lanka. Among 34 countries with available data, 14 have coverage rates of 50 percent or more (Figure 4.11). Pension coverage shrinks if considered only in light of contributory pensions.

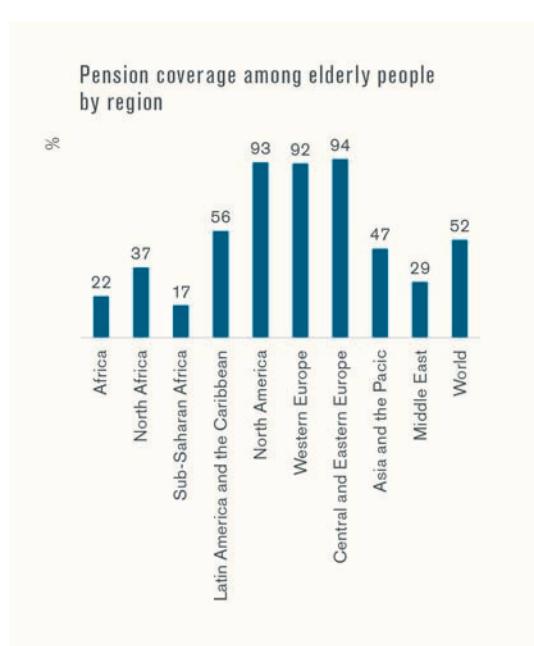
Despite gaps, developing countries in the region have made significant progress over the last decade, with pension coverage increasing in 30 out of 34 countries with data. Countries that have made big jumps include China, Maldives, Thailand and Timor-Leste, among others.<sup>62</sup>

Differences in coverage are explained by several factors, including public policy choices and pension types. In China, for instance, most people are not in the contributory pension system, so they receive benefits from a social protection programme that is fairly small.<sup>63</sup> Thailand's high coverage rate largely stems from defined benefit programmes such as the Old-Age Allowance System, which is a mandatory social insurance system requiring all formal entities with employees to participate, and the National Savings Fund, which acts as a safety net for Thai workers not covered by state pension.<sup>64</sup> Nepal has higher coverage through publicly funded social pensions. In some countries, including Bhutan, Cambodia, Pakistan, Papua New Guinea, Tonga,

and Vanuatu, pensions coverage are relatively low, with coverage extending only to 5 percent or less of the older population.

Actual pension coverage tends to be less than that promised by law. Such gaps occur, for instance, when national institutions are not effective enough in delivering benefits and

**FIGURE 4.10:**  
Globally, pension coverage varies widely



Source: ILO 2014a.

Actual pension coverage may be less than that promised by law

services, and where there are budgetary constraints. Pensions with voluntary affiliation mechanisms, which are more likely for self-, part-time or informal employment, have lower coverage. Globally, more than half of employees are affiliated with a pension scheme, compared with 16 percent of the self-employed. Men are better covered than women.<sup>65</sup>

Besides understanding coverage, it is important to look at the adequacy of pension systems, which indicates the degree to which older people can rely financially on pensions. The variety and complexity of national pension systems, as well as the limited availability of data, make it difficult to find a comparable benchmark for measuring adequacy. Some indicators can provide an estimate, however,<sup>66</sup> such as the replacement rate. It measures how

**FIGURE 4.11:**  
In Asia-Pacific, pension coverage tends to be higher in wealthier countries, but many developing states have made impressive progress



Source: ILO 2014a.

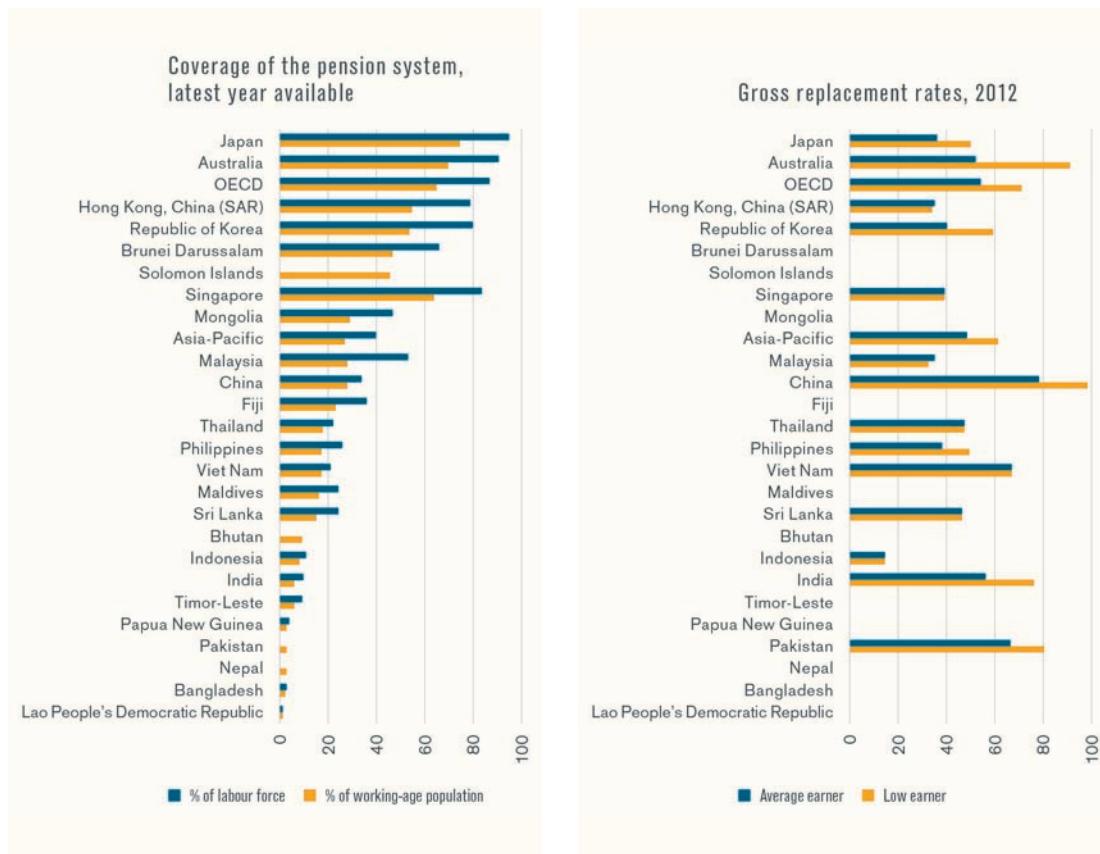
effectively a pension system replaces earnings before retirement. The gross replacement rate is defined as gross pension entitlement divided by gross pre-retirement earnings, while the net replacement rate uses net values taking into account income taxes and social security contributions.<sup>67</sup> The minimum replacement rates necessary to guarantee pension income above the poverty line varies from country to country, but is estimated to be between 50 percent and 90 percent for low-income earners.<sup>68</sup> As shown in Figure 4.12, among countries where data are available, many are below this threshold.

In Japan, for example, the pension coverage rate of 95 percent is very high. But the gross replacement rate of an average earner is only 36 percent, however, and 50 percent for a low earner.<sup>69</sup> In China, the active coverage rate of 34 percent is lower, but the replacement rate for low earners reaches 98 percent, and 78 percent for people who receive an average income. In India, only 6 percent of the working-age population contributes to a pension scheme, yet replacement rates of 76 percent for low earners and 56 percent for average earners are quite high.

Maintaining a balance between the volume of people covered and the level of benefits received is a matter of public policy and involves issues of sustainability. Implicit pension debt, defined as the present value of future pension promises minus prefunding, if any, is an indicator of sustainability. In Asia-Pacific countries with defined benefit pension systems, pension promises are often at least partly funded, which can lead to implicit pension debts larger than the public debt of the country. This has sparked concerns about maintaining pension systems over the long term, for example, in the Philippines and the Republic of Korea.<sup>70</sup>

Worldwide, more than half of total public pension expenditure, amounting to 3 percent of global GDP, is allocated to income security for older persons.<sup>71</sup> In 2010 to 2011, public non-health social protection expenditure for older people was highest in Western Europe at 11 percent of GDP, and lowest in Africa at 1 percent. Asia-Pacific, at 2 percent, is significantly below the global mean (Figure 4.13). If the proportion of expenditure is compared with the share of the older population, Asia-Pacific is worse off than Africa. Among 36 Asia-Pacific countries

**FIGURE 4.12:**  
Pension replacement rates provide a measure of adequacy



Source: OECD 2014.

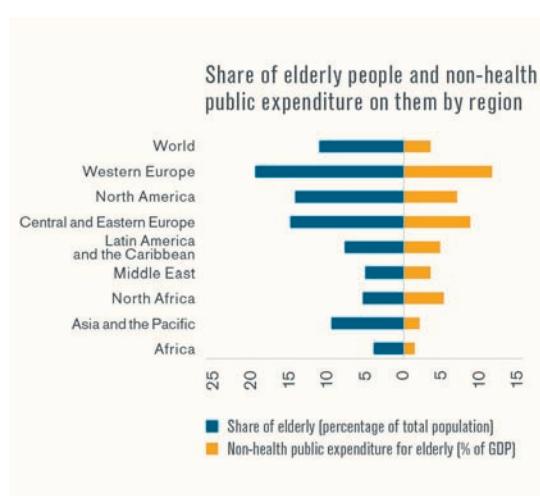
Notes: The pension coverage rate is that of individuals who are actively working and contributing to a pension. It does not include individuals covered by non-contributory pension schemes.

with available data, 17 spent less than 1 percent of GDP on pensions in 2010 to 2011. Australia and New Zealand spent around 5 percent, while Japan spent almost 12 percent (Figure 4.14).

Current low spending on pensions in most Asia-Pacific countries is expected to rise. In emerging economies, there was a 2 percentage point jump in public pension spending as the share of GDP between 1990 and 2010, with predicted climbs in advanced and emerging economies by an average of 1 and 3 percentage points over the next two and four decades, respectively.<sup>72</sup> The proportion of the government budget spent on social pensions ranges from 0.05 percent in India and Viet Nam to 0.35 percent in Nepal. However, research indicates that the cost should range from 1 percent to 1.5 percent of GDP in the medium term, and 2 to 2.5 percent in the long run.<sup>73</sup> The Japanese have had some experience in taking measures to

Pensions in many cases do not provide enough income for self-sufficiency

**FIGURE 4.13:**  
Non-health public expenditure on pensions is very low in Asia-Pacific compared to other regions



Source: ILO 2014a.

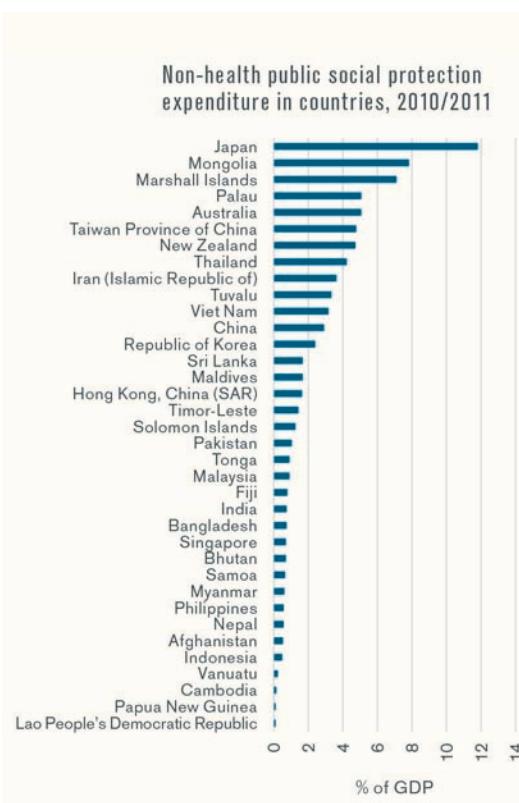
The proportion  
of government  
spending on social  
pensions is low

protect fiscal sustainability during this process (Box 4.6). In all cases, good design, governance and delivery are critical.

While domestic savings as a share of GDP has risen in some high- and middle-income countries with a greater share of older people, and can produce a demographic dividend as well as cushioning the process of ageing for individuals, it does not increase indefinitely. A reversal is especially likely as the number of ‘oldest old’ people grows, given increased needs for medical care and support services. And introducing a pension scheme, regardless of the type, can lead to a drop in overall per capita savings.<sup>74</sup>

Governments in some Asian countries have made efforts to encourage saving—people in Singapore are required to save a high fraction of their earnings through mandatory contributions to a central provident fund. Some East Asian economies, including China, have achieved high-

**FIGURE 4.14:**  
**Social protection spending on pensions lags behind in many countries**



Source: ILO 2014a.

## BOX 4.6: Japan sustains a system by containing costs

Japan's social security system provides public pensions, health insurance and long-term care for old-age security. Pension systems are mainly operated by the national Government, and health-care services by prefectural governments, with key roles for private organizations. The social security system is funded through both private and public sources: 60 percent by insurance contributions, 30 percent by public expenditure and about 10 percent by asset income.

While an ageing population exerts a heavy fiscal burden, the Government has managed to contain costs. In 2009, it spent 10 percent of GDP on old-age and survivor benefits, less than several advanced countries with relatively younger populations, such as France at 14 percent and Germany at 11 percent. The Government has sought to moderate benefits to address rising demand, and the structure of the pension system has been adjusted several times. In 2004, benefits for new retirees were cut by 1 percent a year. People have been encouraged to work longer and take later retirement. Public pensions are progressive, meaning high-income retirees draw fewer benefits.

The sustainability of Japan's medical care and long-term care insurance services will be tested in the next 10 years, however, when the baby-boomer cohort will turn 75. Demand for social security benefits will hit its peak.

Sources: National Institute of Population and Social Security Research 2011, Government of Japan 2016, OECD 2013, Takashi 2014.

er rates of personal saving without government mandates. This stands in sharp contrast with the public pension systems in Europe, and to a lesser extent in Japan and the United States, which tend to provide for retirees out of current taxes.<sup>75</sup> Some examples of successful pension systems are highlighted in Box 4.7.

### ACCESSIBILITY IS IMPROVING BUT STILL LIMITED

Interactions with friends, families and the wider community are vital to older people. As the region's population ages, and more seniors begin

## BOX 4.7: Increasing links between public and private pension schemes

Demographic shifts have catalysed a re-evaluation of pension schemes worldwide. Increasingly common elements, which are often used in combination, include non-contributory schemes such as a social pension, contributory schemes scaled to varying degrees of earnings, mandatory individual savings accounts, and flexible and discretionary arrangements through employers. Familial assistance can also be significant.

The **Danish** retirement scheme provides opportunities for citizens to contribute to private pension funds while simultaneously guaranteeing basic old-age pensions scaled to prior occupations. The system has grown from entirely public to partly private to meet the future challenge of an older population. Population longevity is being linked to increases in retirement age, with a predicted pension age of 69 by 2050.

In **Australia**, the retirement income system synthesizes a means-tested age pension, paid from general government revenue, with a mandatory employer contribution to private sector plans. The means-tested pension provides a basic income to those whose incomes or assets do not meet specified levels. The mandatory retirement saving programme, known as the Superannuation Guarantee, requires employers to contribute 9 percent of earnings, rising to 12 percent by 2020. A final element is voluntary saving.

**Chile's** system incorporates means-tested social assistance with mandatory privately managed defined contribution and employer-sponsored

supplementary plans. Any retiree who has worked at least 20 years and whose pension falls below the minimum level receives additional support to reach that level.

With continued improvements in life expectancy and mortality, the financial sustainability of pension models has been increasingly questioned, particularly where early retirement has placed a strain on reserves. In **Germany**, the benefits of the national scheme go disproportionately to older generations while younger people face higher contribution requirements. This can reduce incentives to remain in the labour force and lead to full withdrawal of pension funds and an early retirement.

Rising pressure to reform public pension systems to contain costs is often spurred by the need to increase domestic fiscal stability and sustainability. Implementing these reforms, however, can incur high administrative costs, and could potentially result in public protests and political instability, underscoring the need to carefully consider different elements in the process of reform and in aiming for sustainability.

Private pension systems may be an appropriate support to public schemes. Policy options to increase cooperation between the two include compulsory or automatic enrolment to raise coverage rates, encouragement to contribute larger amounts for longer periods of time through measures such as increasing retirement age, and establishing outreach programmes to target population subgroups requiring improved access to private pensions.

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Decent, appropriate housing can contribute to active ageing and well-being

Sources: Nguyen 2002, Mason and Lee 2011, Holzmann and Hinz 2005, Abrahamson and Webner 2003, Williams and Fixsen 2012, Melbourne Mercer Global Pension Index 2015, Melbourne Mercer Global Pension Index 2015a, Melbourne Mercer Global Pension Index 2015b, Agnew 2013, The economist 2014b, The Economist 2014c, Longman 2015.

to live alone, elderly communities will increase, making accessibility even more important. To fully align with human development and human rights, these communities will have to be equipped with facilities for transportation, grocery stores, pharmacies, medical facilities, social support services and public parks. Such amenities help older people living alone to stay independent, healthy and happy, and to continue contributing to their communities.

Ageing in place is an important concept that encourages measures allowing seniors to continue living in their own homes and communities,<sup>76</sup>

recognizing that the nature and suitability of housing is one of the major determinants of older people's well-being.<sup>77</sup> Older people spend more time at home or in their neighbourhood than other age groups.<sup>78</sup> While decent, appropriate housing can contribute to active ageing and well-being, poor housing exacerbates chronic conditions and disability. Falls among older people are a major cause of lost independence, with home environments proven to influence their likelihood.

Only some countries in the region have policies or programmes to enable older persons to

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## Many rural older people still contend with poor roads and transport systems

remain in their own homes; more have facilities for affordable and accessible transportation, such as discounts, special fares, concessions or exemptions, and priority seating. For example, India's Ministry of Railways has offered discounts and earmarked separate counters at various passenger reservation centres for senior citizens.

While much more needs to be done in the region, there are examples of good practices and innovations in housing design, assistive devices, transportation and community services. A growing number of national and local governments have adopted policies to make housing and the urban environment more accessible. Many cities offer reduced public transit fares for older persons; some also have special transportation arrangements for those with limited mobility. Building codes have been revised to provide age-friendly features in new construction.

Governments and civil society organizations have sometimes made significant investments in modifications to existing housing and public facilities. In 2008, the Mayor of Seoul announced a move towards an 'age-friendly city' with a '3-10 plan', comprising 10 new care centres for the elderly within each city district, accessible within a 10-minute walk and open until 10 pm.<sup>79</sup> While innovative programmes are mostly found in more developed countries, cities such as Bangkok, Beijing and New Delhi are also adopting new measures, in some cases on a pilot basis.<sup>80</sup>

Some cities are already adopting ageing strategies and targeted policies. For example, the City Council of Brisbane's Seniors Strategy for 2012-2017 focuses on improving pedestrian mobility and transport, infrastructure, and access to public buildings and venues.<sup>81</sup> China has created proposals for 'universities of the third age' to accommodate active older citizens, and is building more nursing homes for others. The Republic of Korea has invested in part-time public sector employment programmes for retirees to help them avoid falling into poverty and social isolation.<sup>82</sup> Globally, the WHO has established a network for sharing experiences on age-friendly cities and communities (Box 4.8).

Accessibility is particularly critical—and difficult—among Asia-Pacific's fast-ageing rural populations. Many rural older people still lack access even to basic health care, for

reasons related to shortfalls in health care systems as well barriers such as poor roads and transport systems. A lack of banking services may pose obstacles to collecting pensions or accessing savings for those who have them. A deteriorating social network due to rural-urban migration can mean older people left behind end up struggling with social isolation and a lack of support. Some promising models to improve accessibility in rural areas are starting to emerge, often through the use of telecommunications technology, including mobile phones. Through telemedicine, for instance, older rural residents can be readily and inexpensively connected to centres of medical excellence.

On the whole, most efforts to accommodate older people in developing Asia-Pacific countries are still nominal, such as seats on public transport. Provisions lack a holistic approach, which results in shortfalls, such as when older persons cannot use a seat reservation on a public bus because it is difficult for them to get into the bus. Reservations for senior citizens to oc-

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### BOX 4.8: The WHO Global Network of Age-Friendly Cities and Communities

The WHO Global Network of Age-Friendly Cities and Communities was launched in 2005 to help create more liveable urban areas for older citizens. The initiative aims to promote the sharing of experiences among communities across the world, and provides guidance for integrating an ageing perspective into urban planning and enacting policies for more age-friendly communities.

The initiative has also produced a guide that identifies the core features of an age-friendly city. It builds on the WHO's active ageing framework, which views ageing as "the process of optimizing opportunities for health, participation and security in order to enhance quality of life as people age." The project has tapped the views of older residents through focus group discussions in a diverse range of cities across the world, covering different regions, income levels and population size. It includes good practices in the areas of public spaces, transportation, housing, social participation, employment and health.

cupy space in some public buildings have little meaning if the buildings lack elevators.

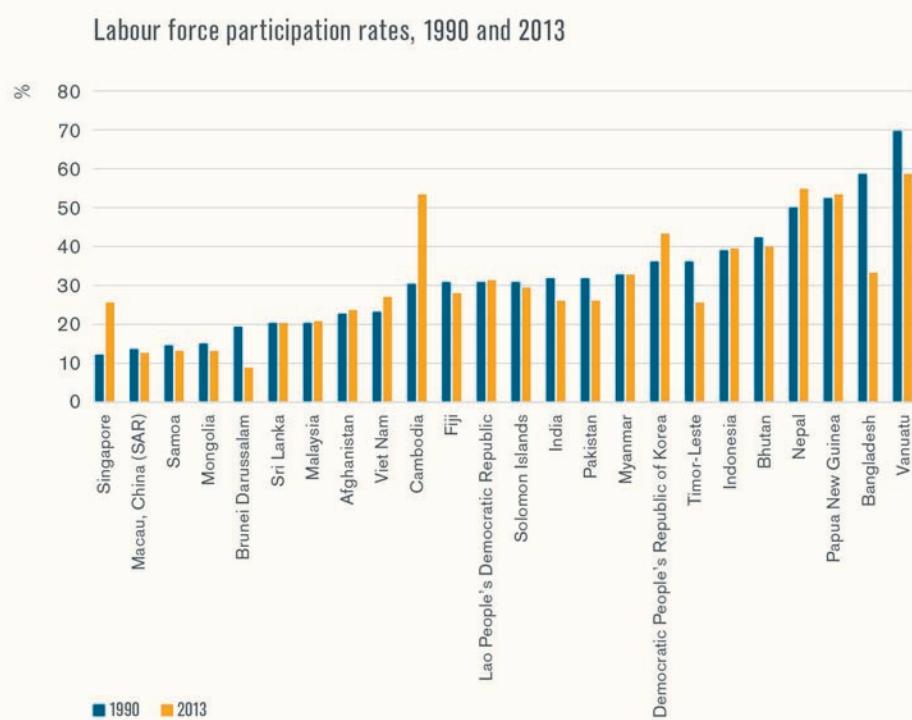
### REMAINING ENGAGED

Many older people remain in the workforce, earn incomes, vote and pay taxes. They also volunteer, and in fact, many organizations would be difficult to run without their older volunteers.<sup>83</sup> Self-employment is the dominant form of their work, commonly at rates of 90 percent and higher in rural areas of East Asia and the Pacific. Older people of 65 and above in East and South-east Asia tend to continue working long hours, particularly in rural areas. In some countries, older men work on average 40 hours or more a week, and women work 30 to 45 hours a week.<sup>84</sup> Women also play critical role within households, such as caring for children. One study found that grandparents in rural China provide care to 19 million children whose parents have migrated to cities.<sup>85</sup>

As people age, they leave the workforce, but in some cases, they exit at rates that may be higher than ideal. The labour force participation of older people has increased in some Asia-Pacific countries between 1990 and 2013 (Figure 4.15); others have seen a decline. For the region as a whole, the rate is low compared to other developing regions—among people aged 65 and above, it is only 34 percent for men and 11 percent for women. This compares with 53 percent of men and 28 percent of women in Africa and 47 percent of men and 19 percent of women in Latin America and the Caribbean.<sup>86</sup> And while Asia-Pacific's labour force participation rate among older people is projected to decline, the rate will likely rise in Latin America and the Caribbean and North America until 2020.

Institutional, legal, social and technical barriers that constrict work force participation for older people in Asia-Pacific include a legal age requirement for retirement, a lack of familiarity with modern technology, limited

**FIGURE 4.15:**  
**Labour force participation rates are low among older people in Asia-Pacific countries**



A variety of barriers constricting work force participation for older people need to be removed

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**Legislation has a role  
in correcting prejudices,  
but may not be enough  
to change employer  
attitudes and practices**

options for lifelong learning, and the reluctance of companies to invest in training or hiring older employees. These obstacles occur despite several international agreements stipulating that older persons have a right to decent work opportunities, free from any form of discrimination. Older workers often face discrimination at workplaces particularly with respect to training and recruitment. Preference is given to the recruitment of younger workers who are assumed will stay longer on the job.

While legislation has a role in correcting prejudices, this may not be sufficient to change employer attitudes and employment practices.<sup>87</sup> Practical considerations should be stressed as well—China, for instance, will have a shortage of 22 million skilled workers by 2020, despite massive investments in education.<sup>88</sup>

Low retirement age is a particular barrier, because it may push people out of the workforce even before they are ready. Among all global regions, and for men and women, retirement ages are lowest in Asia-Pacific,<sup>89</sup> currently ranging from 55 years to 60 years. The gap between life expectancy and formal retirement age is noticeably large in several countries, almost 25 years for men in Singapore<sup>90</sup> and 25 years for women in Viet Nam.<sup>91</sup> China, Sri Lanka and Viet Nam still impose a lower retirement age for women than for men.<sup>92</sup> This is discriminatory and overlooks the reality that women generally live longer than men, and may spend many years in old age without employment or a spouse to provide financial support.

Despite artificially low retirement ages, many people have no choice but to continue working, given the inadequacy of pensions especially in developing countries, and the general weakening of family-based support in the region. Many end up in the informal sector, where working conditions tend to be poor and safety nets are typically tattered, if they exist at all. While there is a pronounced preference for early retirement in developed countries such as Japan and the Republic of Korea, older people in Indonesia and the Philippines fund two-fifths of their consumption from their own labour income.<sup>93</sup> In Indonesia and Japan, they provide more support to their families than what they receive from them.

The poor matching of life expectancy and retirement age has implications for individuals and societies at large. Skilled labour may go to waste, and fiscal pressures linked to pension funds may increase, blocking more productive investments. Recognizing these risks, some countries have begun to promote employment for older persons. China's Silver Age Action Programme organizes retired intellectuals to apply their scientific and technological knowledge and expertise to aid the advancement of underdeveloped regions of the country. Between 2003 and 2010, the programme benefited an estimated 200 million people and generated economic returns worth five billion yuan.<sup>94</sup>

The governments of Indonesia and the Philippines have educational assistance programmes that encourage senior citizens to pursue different types of technical and vocational training. In the Philippines, private companies are entitled to a 15 percent reduction on income taxes paid on behalf of older workers.<sup>95</sup> Indonesia has established centres in almost all of its 34 provinces that provide training to workers in the informal sector, including older ones. In Viet Nam, the 2002 Labour Law guarantees older people the right to decent work while receiving pension benefits.<sup>96</sup>

The workforce is only one channel for older people to participate in their societies. Increasingly, they are a powerful political constituency. In some countries, they show up in large numbers for elections, wielding significant political influence that governments cannot afford to ignore.<sup>97</sup>

Since the Madrid International Plan of Action, many countries have formulated or revised policies on national ageing policy, strategy or plan. In Asia-Pacific, 40 percent of countries have specific and overarching legislation on older persons,<sup>98</sup> with recent examples including the Senior Citizens Acts in India (2007) and the Law on the Elderly in Viet Nam (2010).<sup>99</sup> These acts and regulations are meant to support active ageing and ensure the full participation of older adults in society.

Governments in Sri Lanka, Turkey and Viet Nam have worked closely with civil society organizations representing older persons on national action plans on ageing. Both Indonesia and New Zealand, under the aegis of govern-

ment bodies, encourage regular interactions between older and younger people to discuss intergenerational issues.

Civic and cultural programmes to combat social isolation and support empowerment include the Chinese Older Persons' Chorus Festival and Olympic Games for older persons. In Thailand, over 25 percent of older people, about 2 million in total, were members of senior citizen clubs in 2007. A national Elderly Fund provides financial support for activities of older persons' groups, clubs or networks.<sup>100</sup>

Despite progress, the participation of older persons in society and development is still relatively limited in many Asia-Pacific countries, requiring concerted advocacy to shift mindsets and tackle marginalization. Only a few countries have actually implemented comprehensive policies for older people, in part due to inadequate awareness of the importance of addressing population ageing. Another issue is a dearth of information or evidence upon which to base the design and implementation of appropriate and effective policy responses. Collecting better data and conducting more comprehensive research could shine a light on ageing in the region, and its specific dynamics and impacts in each country. While some countries have now conducted initial surveys on ageing (Table 4.4), large gaps remain on a range of ageing issues. Data on older persons need to be collected regularly, and disaggregated by age, sex, subnational units and socioeconomic characteristics.

## PRESSURES ON FISCAL SUSTAINABILITY

Ageing has profound implications for public budgets. Difficult choices may lie ahead, particularly without sufficient preparations. A major challenge overall will be balancing the needs and rights of different generations, so that expanding older populations have protection and care, but without sacrificing essential services for everyone else.

In some developing regions, such as Latin America and the Caribbean, and Eastern Europe and Central Asia, the state provides generous pension systems. In Asia-Pacific, by contrast, people still rely more heavily on their own labour and the support of their families, especially in rural areas.<sup>101</sup> Nonetheless, several Asia-pacific countries are among those globally with the largest recent increases in spending on pensions. Between 2010 and 2030, pension spending by the Republic of Korea will rise by 4 percentage points, from 2 percent of GDP to 6 percent, above the average of advanced economies, which is 1 percentage point. China's spending is projected to increase by 3 percentage points and Malaysia's by 2 percentage points, both substantially higher than the average of about 1 percentage point for similar countries.<sup>102</sup>

With its current design, China's Basic Old-Age Insurance scheme for urban non-government employees could alone run up a deficit that might be 5 percent of GDP by 2030, with an accumulated total deficit amounting to over 30 percent of GDP.<sup>103</sup> A national social pension plan

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A major fiscal challenge is balancing the needs and rights of different generations

**TABLE 4.4:**  
A number of countries have initiated national ageing surveys to guide policy choices

<b>Australia</b>	National Seniors Australia's Atlas of Productive Ageing 2009, Older Adults at a Glance 2004
<b>Cambodia</b>	Older Persons in Cambodia: A Profile from the 2004 Survey of the Elderly
<b>Chile</b>	Situation analysis of pensioners and their home careers (SENAMA) 2007
<b>China</b>	Survey of the Aged Population of Urban/Rural China 2000, 2006 and 2010
<b>Indonesia</b>	Profile of the Older Population in Indonesia 2010
<b>Japan</b>	Annual Report on the Ageing Society since 2002, National Survey on Elder Abuse 2003
<b>Myanmar</b>	The Elderly Population in Myanmar: Trends, living conditions, characteristics and prospects 2005
<b>Thailand</b>	National survey every five years
<b>Viet Nam</b>	Results on Survey of the Elderly, 2007 (National Committee on Ageing)

## Health-care spending begins a rapid rise when the share of older people in a population reaches around 9 percent

to cover the population at the current poverty line, which is equivalent to 7 percent of GDP per capita, and with an increased retirement age of 65, could incur an annual cost of 0.7 percent to 1 percent of GDP, which is not very high. But a combination of more generous benefits, early retirement age and lower than expected fertility could raise the share to 4.5 percent.<sup>104</sup>

Rising living standards and population ageing are also associated, inevitably, with higher health-care costs, with additional implications for public budgets. The population ageing threshold at which health-care spending begins a rapid rise is around a 9 percent share of older people. While there were only 13 Asia and Pacific countries and areas over this threshold in 2015, 16 more will reach it by 2030.

Most East Asian and Pacific countries spend less on public health care than countries in other regions and subregions, when adjusted for per capita income.<sup>105</sup> Ageing and the accompanying increase in chronic non-communicable diseases are likely to increase costs by 20 percent to 40 percent between 2000 and 2020,<sup>106</sup> however, requiring improved financing mechanisms.<sup>107</sup> Among the world's economically advanced countries, including Japan, health-care spending per capita is about four times higher for people aged 65 and older than for the rest of the population.

While many countries in recent decades have enjoyed historically high rates of economic growth, these are not sustainable, as countries such as Japan, the Republic of Korea and Singapore have demonstrated. High growth rate

periods are generally followed by long periods of low growth, which means slower expansion of government revenue. This will constrain government abilities to fund pension programmes, health care and other forms of support for older people. In a business-as-usual scenario, the transfer of wealth to older people could rise to 320 percent of total labour income by 2030, and 540 percent by 2050.<sup>108</sup> China, where the recent economic boom has produced a sizable surplus, could see it vanish within the next 20 years.<sup>109</sup>

The fiscal support ratio can be used to assess pressures on fiscal sustainability (Table 4.5).<sup>110</sup> Values less than 100 percent indicate a decline in tax revenues relative to expenditures in 2010, which is the base year. The ratio deteriorates in advanced countries such as Japan by 26 percentage points. These countries would have to either increase taxes or reduce public expenditures. Ratios for India, Indonesia, the Philippines and Thailand are higher, suggesting that these countries can expand expenditures at the existing tax rate. The danger, of course, is that countries with favourable demographics in the early to middle stages of transition could implement generous systems of support that ultimately prove to be unsustainable.<sup>111</sup>

## REVERSING LOW FERTILITY RATES AND INCREASING THE FLOW OF IMMIGRATION

A number of Asia-Pacific countries are looking for ways to manage an ageing population. A

**TABLE 4.5:**  
**Fiscal support ratios of some Asia-Pacific countries**

Year	China	India	Indonesia	Japan	Republic of Korea	Philippines	Taiwan Province of China	Thailand
1960	84	96	81	98	76	84	68	66
1980	83	95	77	114	81	85	76	67
2000	98	98	92	111	99	94	94	92
2020	97	102	106	92	97	106	100	104
2040	84	103	109	79	83	114	85	104
2050	82	102	109	74	80	116	78	104

Source: Lee and Mason 2011.

## **BOX 4.9:** **Ageing countries begin encouraging larger families**

Even in the face of ageing, well-designed policies have enabled some countries to keep their birth rates at desirable levels. In Sweden, for example, enabling women to work as well as become mothers has helped birth rates rise. Swedish parents receive 480 days of paid parental leave for each child, of which up to 60 days are reserved for fathers. The law also prohibits women from being dismissed from jobs due to reasons related to marriage or childbearing. In Norway, the state, municipality and parents share the burden of childcare, with the state's share being about 40 percent of the total cost. Subsidized public childcare programmes expanded extensively through the 1980s and 1990s, and nearly 66 percent of children now have access to these. Parents who do not use them can receive an equivalent cash bonus.

Family-friendly policies have helped France attain one of the highest fertility rates in Europe, even as female labour force participation is higher than the average for countries in the Organisation for Economic Co-operation and Development (OECD). France spends a significant 3 percent of GDP on family policies. Additional tax breaks and monthly

stipends kick in from the second child. Women can take maternity leave, reduce the number of hours of work and receive childcare support for up to three years. Immigration has helped keep birth rates high in the United Kingdom, although family policy in the last 10 years has also played a role, including through extending maternity leave from 16 weeks to 54 weeks. Public childcare has been very limited, covering only 2 percent of children under age three, the lowest ratio in Western Europe. Reforms now seek to extend public facilities and provide low-cost care for poor families.

In Asia-Pacific in 2014, the Republic of Korea had the lowest fertility rate. People are disinclined to have more children in part because of high costs of schooling and childcare. Women struggle between choosing a career or staying at home to care for children; only half participate in the labour market. The Government now aims to extend public childcare to cover 30 percent of children by 2017, and also to encourage expansion of private health care. Policies are being devised to reduce the length of the workweek, increase parental leave and cut costs of education.

Sources: Rønse 2004, Ivanovic 2008, Toulemon, Pailhe and Rossie 2008, Toulemon et al. 2008.

shortage of younger workers, economic slowdown and increasing fiscal pressures have led some to encourage people to have more children. In October 2015, China's one-child policy was abolished and replaced with a two-child policy aimed at overcoming the negative socioeconomic implications of ageing. Countries in Europe, including France, the United Kingdom and Scandinavian countries have successfully increased fertility rates close to the replacement level. The Government of the Republic of Korea is incentivizing higher fertility by lowering the cost of education.

Japan's latest draft population policy aims to increase its birth rate by supporting local governments and others in sponsoring speed-dating events and matchmaking, and offering more paternity leave and fertility centres. Australia and Singapore have introduced baby bonus schemes and considerable cash incentives to improve fertility rates. Box 4.9 shows how different national policies have been effective in reversing falling fertility rates.

Although fertility in many ageing Asia-Pacific developed countries may rebound in the coming decades, it will probably not reach replacement level in the foreseeable future. Any increase would need at least a couple of decades before becoming 'visible' to the labour market. In this context, expanding the labour force can be done primarily by increasing female labour force participation, raising the retirement age and encouraging immigration. In most cases, the first two will be sufficient to maintain a reasonable balance between people working and dependents. In other instances, international migration is the only option in the short to medium term to address risks from rapid ageing combined with greater demand for health care.

As migrants are usually younger, migration is often proposed as a quick solution to labour shortages, including among care workers. It can make a significant contribution to the economy and to individual well-being, as long as the process is managed in a way that upholds the safety and rights of people who decide to migrate.

**Some countries want people to have more children to slow the speed of ageing**

Older countries such as Japan and the Republic of Korea used to be migrant source countries. But both in recent years, having increasingly seen the need to attract younger people to their workforces, have amended and adopted laws and regulations to ease the flow of immigrants to their own countries.

## SUSTAINING HUMAN DEVELOPMENT ACROSS LONGER LIFESPANS

Developing Asia-Pacific countries have made significant strides in improving human development. But rapid ageing poses potentially serious challenges to progress without appropriate policy actions, taken urgently. Ageing also offers opportunities that should not be squandered. Countries need to manage their resources—human and otherwise—to ensure that they develop in ways that sustain progress and open opportunities for all segments of their populations, young and old.

Drawing on Agenda 2030 and the three pillars of the Madrid International Plan of Action on Ageing, strategies to guide ageing should be grounded in the active empowerment and engagement of older persons, where they have central roles in decisions on the issues they face. All strategies should be underpinned by core principles such as equity, sufficiency and sustainability.

It will be possible to manage rapid aging while sustaining human development. This will require a number of complementary policy reforms. Measures will be needed on both an individual level, such as through preventive health and financial preparedness, and on the societal level, on key issues such as retirement age and the design of pension systems. The private sector and civil society will have roles to play, such as in extending services and pioneering innovations.

### MAKE AGEING A TOP POLICY ISSUE, BACKED BY INSTITUTIONAL SUPPORT

**Enact national ageing policies:** An ageing pop-

ulation is inevitable, underlining that it must be prioritized in national development policies and plans. These should uphold the rights of older persons to participate in the development process, and to have access to all the capabilities and opportunities on which human development depends, with a special emphasis on quality mental and physical health and long-term care. Policies can cover a wide range of issues relevant to older persons and, more generally, an ageing population, such as using community-based approaches to encourage the meaningful participation of senior citizens in decision-making, sharing information about preventative health care and protecting the rights of older people. Special attention should go to groups facing age discrimination combined with other forms, particularly women.

Equally important is to adopt a national strategy or plan for ageing economies. Countries will change in fundamental ways as age composition shifts. Ageing will impact the size of the labour force, tax revenues, GDP, public expenditures on health care and pensions, and other key macroeconomic indicators that affect not only older people, but the population at large. A long-term vision and planning can help countries secure a healthier, more economically stable future. Plans will need to be backed by necessary budget resources and oriented around clear goals. Countries that start investing now in pension and health care, in particular, stand a better chance of sustaining and achieving additional human development gains.

**Mainstream ageing issues and establish relevant institutional mechanisms.** While many Asia-Pacific countries have enacted ageing-related laws and regulations, implementation remains limited. Countries need to ensure policies and concerns linked to ageing are understood and reflected across a variety of government actions. Entities housed under the ministries of labour, health and social welfare, among others, might serve as instruments to carry forward this process.

Government institutions dedicated to the well-being of older people can help ensure that policy promises get off the ground. They can advocate for the elderly, focus public attention on their challenges as well as the positive social and economic benefits they offer, and

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Countries need to make an institutional and data-driven commitment to the well-being of older people

help coordinate the work of other government agencies on the diverse array of issues tied to ageing, including the economy, labour markets, health care, housing, transportation, and so on. Institutions to conduct inspections, surveys and hearings on ageing interventions can be means to uphold accountability and avenues for older people to participate.

In Japan and Thailand, interministerial councils and commissions on ageing, chaired by the Prime Minister's Office, oversee policy implementation. New Zealand has appointed a minister for senior citizens. Australia, China, Malaysia, the Republic of Korea and Thailand reserve seats in different consultative bodies on ageing for older persons.

**Gather data about older people to guide policy:** Knowledge about population ageing is limited in the region. Building a better foundation of data, evidence and knowledge will help make policies more attuned to reality on the ground. More research is needed on the social, psychological, cognitive and biological aspects of ageing. Data collection should be disaggregated by age, sex, subnational units and socioeconomic characteristics, and collected through periodic surveys that reveal patterns and gauge progress over time. International and regional cooperation can enhance the exchange of information, including across countries at the same as well as different stages of transition.

### STRENGTHEN PENSIONS AND PROTECTION FOR OLDER PEOPLE

**Expand pension and social protection coverage.** With some social traditions and family ties beginning to fray, including through increased urbanization and migration, pension systems will become crucial for older people to live out their lives in a decent, dignified manner. In Asia-Pacific, excluding China, pensions cover only one-third of the population.<sup>112</sup> In a rapidly ageing region, expanding coverage to all will be fundamental to human development. Pension systems need to reach workers outside government services, in formal and informal enterprises, and in urban and rural areas. In some instances, governments will need to partner with the private sector to develop pension systems that can offer

broader coverage.

This process will not be easy or cheap, or necessarily readily sold to either younger or older members of the public. Both have vested interests—the former in minimizing tax burdens, and the latter in increasing or maintaining high benefit levels. Heavy debt burdens that destabilize the economy do not benefit any group.

It is particularly critical to reach workers in lower-income groups, including those in the informal sector and rural areas, who are unable to contribute to pension plans or set aside income. Potential measures include social security programmes and non-contributory pension schemes. While these systems are in place in the region, the financial support they offer is extremely small and needs to increase, especially towards the goal of ending poverty among older persons.

**Make pension systems sustainable.** As countries begin to expand pension systems, attention will need to be paid to design and long-term sustainability. Choices will arise around balancing priorities across generations. It will be important to develop social consensus around what constitutes a fair share.

Pension systems, in general, are complex and often controversial, given multiple possibilities for managing funds, investments and returns. Some countries have been successful in finding a way forward. Denmark's highly rated pension system, for example, offers stable and adequate benefits to its retirees through a strategy where nearly 80 percent of funds are invested in bonds.

In many Asia-Pacific countries, a serious discussion needs to begin around how to start saving for pensions, and to what extent working-age people should be saving now. Should governments develop large welfare systems as in Europe or parts of Latin America; call on people to rely more on the accumulation of personal assets as in Indonesia, the Philippines and Thailand; or use a combination of these strategies?

Broadly, pension systems should aim to be progressive, where benefits are equitably shared, and those with the capacity to contribute more do so. A fair floor of essential benefits could be established for all pensioners. Increasing contribution rates to soften the fiscal burden of

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Pension systems should aim to address the simultaneous challenges of coverage, adequacy and sustainability

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## Mitigating the rise of non-communicable diseases can help keep health care for older persons affordable

pensions should start from the perspective that higher labour taxes depress household income and spending, especially among households with little or no savings—and such households make up the largest share of consumption spending. Better-off households are more equipped to adjust savings behaviour based on income flow.

**Broaden scope for personal savings and investment.** Many people in Asia-Pacific hold personal savings in non-monetary assets such as gold, housing and property. This limits abilities to generate a steady flow of cash for retirement, and reduces the economic benefits of money circulation. The main factors deterring financial investments are high rates of inflation; lack of long-term investment options, including reliable pension schemes; and low confidence in and knowledge of banking systems. Without ensuring a stable macroeconomic environment and stronger financial institutions, countries are losing out on the potential benefits of a large middle-aged working population that tends to save the most.

In many parts of the region, financial markets are at a nascent stage. As economies develop, financial products and services will increase, but people need to be able to use these wisely and effectively, especially if households become increasingly responsible for their own retirement planning.<sup>113</sup> Policy guiding the development of the financial industry should encourage the availability of low-risk investment options, such as annuities and bonds that will help older people earn relatively safe returns. Early on, workers should be encouraged to accumulate savings and assets, and invest them in useful ways. Deeper integration of financial markets in Asia-Pacific could allow the savings of Asia's older, more developed countries to help finance investments in infrastructure and education in younger, less developed countries.

**Strengthen traditional support institutions.** Public policy can play an important role in fostering family support systems for older people. In Singapore, children are now legally required to support their older parents and relatives.<sup>114</sup> The Malaysian Government has offered tax incentives to families who care for elderly members. Both nations have concurrently revised public

housing policies to encourage multigenerational living arrangements. Advertisements and public awareness schemes can also help uphold the importance of the family, and the need to assist older parents and relatives, taking care to avoid discriminatory gender stereotypes that assign a disproportionate burden of care to women.

Preservation of family units will help take excessive pressure off pension schemes, and increase psychological and emotional satisfaction among older people. Studies show that older adults providing home care for their grandchildren have greater cognitive abilities and better health as they remain physically active and mentally engaged. In a number of countries in Europe, taking care of grandchildren has been an important way to allow for maternal employment, especially among low-income families or where childcare is expensive. A combined approach comprised of assuring a minimum income in old age and mitigating challenges to family support can contribute to both financial well-being among older persons and more broadly to social cohesion.

## IMPROVE HEALTH-CARE SYSTEMS FOR OLDER PEOPLE

Population ageing will undoubtedly place an increasing burden on national health-care and budget systems. Early intervention and planning can help countries strengthen health systems while a majority of people who will one day be older are still working.

**Achieve universal health care.** Universal health care can make some of the most significant contributions to human development, and should be a goal in all countries, as emphasized in Agenda 2030. This needs to include an explicit focus on older people, who currently face a number of barriers to access.

Older people typically need more health care, but not all can afford it, particularly those from lower-income households or who live independently. Health-care spending for older adults is about three to four times higher than that of the working-age population, for example, in the United States.<sup>115</sup> To lower out-of-pocket costs, countries need to plan to allocate a greater share of public expenditure on health care, including

for older people. Many advanced countries spend from 0.5 percent to 1 percent of GDP on health care for the elderly, a level that countries in Asia-Pacific should over time seek to attain.

Other deterrents to health care for older people include a lack of access to facilities, particularly in rural areas, and a shortage of trained medical staff, including with skills specifically related to caring for the elderly. By 2030, 5.5 million additional health care workers will be needed in Asia-Pacific.<sup>116</sup> This provides an opportunity to institute training of health workers that explicitly addresses age-related and geriatric care.

Stronger financial and programmatic commitments are needed to support prevention, diagnosis, management and proper care of non-communicable diseases over the course of life. Treating these in many cases requires extending affordable services in poorer communities, and shifting the focus from a hospital-centric model to one in which primary care plays a bigger role, and the treatment of older patients with chronic conditions is managed affordably. Closer ties between formal care providers and informal community health systems might extend care options for the elderly as a whole, given, for instance, the growing role of voluntary and private actors in filling service gaps in many communities. Information about services should be widely available.

**Increase long-term care facilities.** As the proportion of older people living alone rises, they will require more long-term care facilities, including in homes and communities. There is a growing demand for home-based nurses and care providers, but these are still largely missing in most countries in the region. Investments are needed in integrated, person-centred care tailored to the needs of individuals. Other priorities are to increase rehabilitative care, care for disabilities and mental health services geared to older people.

**Promote preventative care.** The current rise in non-communicable diseases underscores the importance of preventive health care, including healthy eating and exercise habits that can minimize common old-age illnesses such as diabetes and heart disease. Proactive strategies to foster active and healthy ageing could include

awareness campaigns to cultivate healthy lifestyles. Health promotion and well-being should extend throughout life, recognizing that disease later in life often starts in childhood.

## CREATE MORE OPPORTUNITIES FOR EMPLOYMENT

Opening more employment opportunities for older women and men requires removing a variety of barriers. Complementary and coherent policy measures need to encourage employment flexibility; promote the employability of older people, both as an issue of individual prerogative and to respond to changing labour market demands; and stop discriminatory attitudes and practices towards older workers.

**Re-think retirement policy.** One priority in many countries, especially those with rapid ageing, may be raising the retirement age, since it clearly lags life expectancy. This is likely to have a positive impact through increases in the labour supply and savings as well as higher household income. People will have more latitude to make choices about when to retire. Government savings will rise because lifetime benefits paid to retirees will be smaller, which will create fiscal space for expanding pension coverage. Similarly, private savings may increase as people remain longer in the labour force.

Increased longevity and improved health around the world have led a number of countries with ageing populations to remove the compulsory retirement age or increase it, and establish a pension-eligible age instead. The retirement/pension-eligible age for Australia, the United States and a majority of European countries is above 65, and in some is expected to increase to 67 in a few years, to help ensure that individuals can sustain themselves financially over a longer lifespan. In most of these countries, the retirement policy remains flexible. For instance, people can choose to work beyond their pension-eligible age, unless they are in specific categories of employment, such as the military or government service. By contrast, in nearly one-fourth of Asia-Pacific countries, including a majority of Pacific island states, people tend to retire before reaching 60, and women even earlier. This pattern needs to

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Skills training  
improves employability  
at older ages

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## Flexible and part-time employment options may be attractive to elderly women

change as the region ages.

Research shows that when healthy and physically able individuals remain engaged in active employment, there are positive impacts on their physical and mental well-being. In both developed and developing countries, more people are inclined to work longer when presented with the choice. Experiences from developed countries show that the designs of pension policies, social security benefits and tax systems greatly influence people's decisions to work or retire. These policies need to be configured so as not to discourage work, and instead support longer years of work for healthy individuals.

**Promote flexible work and prevent discrimination.** Every older adult should enjoy the right to choose to remain employed. Towards that end, work environments can become more inclusive by accommodating the physical and health conditions of older people. Business might be encouraged to retain older workers through flexible employment conditions, including work on a part-time basis, and wages commensurate with productivity rather than seniority. Flexible and part-time employment options may be especially attractive to women, who make up a majority of older people but a minority of the older work force. Company policies may also need to adjust to avoid discrimination against older workers.

Many Western countries have put in place laws to protect the rights of older people, but this alone may not change longstanding discriminatory employment practices. Active collaboration among governments, employers and advocates for the elderly; awareness and education in the workplace; and the championing of good practices among employers could help dispel biased perceptions. Conducting surveys to understand employers' views and to learn from older people about their experiences with age-related discrimination could help design appropriate legislation, and guide efforts to foster positive attitudes and practices.

**Support lifelong learning.** Policies that increase participation in the labour market throughout the lifecycle—both at earlier and later stages of people's lives—can do much to reduce the risk of exclusion or dependency in older years.

Better appreciation and recognition of the value of experienced workers should be combined with occupational retraining programmes and lifelong learning that allows older men and women to take up new occupations and cope with technological change. China, Indonesia, the Philippines and Viet Nam have introduced new programmes and policies to promote employment opportunities for older people.<sup>117</sup>

## SUPPORT ACTIVE AGEING

**Engage older adults in public policies.** As is the case for any other age group, older people have the right to participate in decisions that affect them, including those that shape public policies. In some cases, as older people lend their accumulated experience and knowledge, this can lead to better choices, for them and for younger generations. Most Asia-Pacific countries have begun developing policies and laws on ageing that integrate older people's concerns. New measures emphasize active participation and empowerment of older people in the development process, and encourage support from families and communities. Some countries, such as China and Malaysia, have reserved seats in consultative bodies to provide important roles to older adults in decision-making.

There is still a deep need for advocacy, however, to mitigate the isolation and marginalization of older people, to cultivate positive images of ageing and to encourage a view of ageing as offering new opportunities, rather than being mainly a handicap.

**Promote volunteering and community work.** Older adults are in a good position to contribute to community and social work that can benefit society, as well as keep them active and healthy. While volunteerism is well-established in developed countries, it is still not common in Asia-Pacific. Multiple avenues can be opened so that older people can more easily participate in voluntary activities and community service. For example, seniors can mentor young workers, share their expertise with community development projects, and teach children their culture, history and heritage. Senior citizens' centres or clubs should be established where possible, offering regular opportunities for social inter-

action. Free public transport, and free admission to museums, parks and tourist attractions encourage older people to stay active even on limited incomes.

**Facilitate independent living.** With the shift from joint to nuclear families, and the increasing rural-urban migration of young people, housing and community amenities must increasingly become primary supports in helping older persons live comfortably, and remain active and engaged. A living and working environment friendly to older people facilitates their movement, reduces their risk of injury, enhances their ability to care for themselves and access services, and increases their participation in economic and social activities.

Priority measures include, among others, dwellings that can accommodate those with limited mobility and strength; a clean and safe environment inside and outside the home; transportation that is elderly-friendly, affordable and accessible; walkways that are in good repair and free of obstacles; traffic signals that allow sufficient time for older persons to cross streets safely; places to rest outdoors; and public buildings accessible to those with limited mobility.

## AGEING WITHOUT FEAR

The pace of ageing across Asia-Pacific is still very uneven. Wealthier countries, such as Australia, Japan, New Zealand and the Republic of Korea, have proportionately larger older populations, although middle-income countries, such as China and Thailand, are right behind them. Some countries, with very youthful populations, are on the cusp of potentially realizing their first demographic dividend, including most in South Asia and many in East Asia and the Pacific. By the middle of the present century, however, almost all Asia-Pacific countries will have a larger share of older people.

While various efforts have been made, the region as a whole is seriously underprepared for the challenges ahead—or potential opportunities. In most countries, public support systems are inadequate, and low in coverage and benefits. Many display deep inequities across different population groups. At the same time, the cost of old-age support, both in pensions and health care, has increased drastically and is expected to continue to do so for decades to come.

The onset of rapid ageing is an early warning signal, a call for action. Countries need to build robust pension and health-care systems, create innovative ways to mobilize resources and contain administrative costs, ensure older people can remain active at home and in the labour force, and equip public transport and public buildings to facilitate mobility.

Ageing should not to be feared. With the right planning and preparation, it can be a source of enrichment for individuals and the societies in which they live. Given the diverse stages of demographic transition across the region, countries and individuals are well placed to share experiences and tackle the challenges of ageing together in order to sustain human development for all.

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Given diverse stages of demographic transition, countries can share solutions to the challenges of ageing



# Chapter 5

TAPPING THE HUMAN DYNAMISM IN CITIES



# 5. TAPPING THE HUMAN DYNAMISM IN CITIES

Rapid urbanization is transforming Asia-Pacific. Lured by the promise of better jobs and higher incomes, as well as quality education and health care, people across the region are on the move from the countryside to new lives in cities. Natural population growth, expanded urban boundaries and urban-centred development strategies also bump up the numbers. In Asia-Pacific, 47 percent of people today live in urban areas; their share will swell to an estimated 62 percent by 2050.<sup>1</sup>

Demographic transition and human development—and the links between the two—have profound ties to urbanization, as causes and consequences. Urbanization has long been seen as a key factor in the sharp fertility decline that triggers demographic transition. As transition builds on human development gains to provide a larger workforce, it can in turn dramatically accelerate urbanization, with people coming to cities in search of jobs that can only be found there. Cities also offer improved quality of housing, health systems, education and transportation. People have opportunities to save more and invest in productive activities in urban areas.

Throughout history, cities have been centres of learning, culture, art, medical progress, innovation and productivity. Urbanization is not without complex challenges, however. In the midst of explosive growth, the pressure is on to provide enough decent jobs and extend the reach of essential services. In the coming years, many cities will also need to be at the forefront of national efforts to plan for ageing societies; ideally, they will have prepared by building on dividends afforded by earlier stages of transition. The consequences of unplanned growth are likely to be severe, leading to increasingly unequal cities with high rates of poverty and crime.

The international community has recognized the importance of planning and managing urbanization, most recently in Agenda 2030. It emphasizes that cities will be vital for achieving the Sustainable Development Goals, with the 11th goal calling on countries to integrate urbanization in national development strategies. The 2012 Rio+20 Summit outcome document states that "...if they are well planned and developed, including through integrated planning and management approaches, cities can promote economically, socially and environmentally sustainable societies."<sup>2</sup>

Asia-Pacific's future will be defined by how it manages its cities, given their growth rates. Diverse situations mean that there will be no one-size-fits-all solution. But as a general principle, countries that manage their cities well can look forward to attaining higher and more inclusive human development, and to making the most of the demographic dividend.

## AN URBANIZING REGION

The rapid movement of people to cities is one of the most important development stories of recent decades.<sup>3</sup> In 2010, for the first time in history, globally, more people lived in urban than rural areas. By 2050, the share of urban residents is expected to rise from about half to two-thirds of the total population.<sup>4</sup>

The shares of people living in urban areas in Africa and Asia-Pacific have traditionally lagged those of the rest of the world (Figure 5.1). But both regions are now urbanizing rapidly, resulting in the transformation of economies and societies. In Asia-Pacific, the scale and speed of urbanization are historically unprecedented.

In the last 30 years, Asia-Pacific added more than a billion people to its cities—more than all other regions combined—and another billion will be added in the next 30 years.<sup>5</sup> More than 3 billion people will live in the region's cities by 2050 compared to 1.9 billion people now.

From 1950 to 2015, the share of people in the region's cities increased from 17 percent to 47 percent, and is expected to cross into a majority around 2025. While the move to an urban majority took 210 years in Latin America

and the Caribbean, and 150 years in Europe, countries such as China, Bhutan, Indonesia and Lao People's Democratic Republic will make the same transition in about 60 years, and Asia-Pacific in about 95 years.<sup>6</sup>

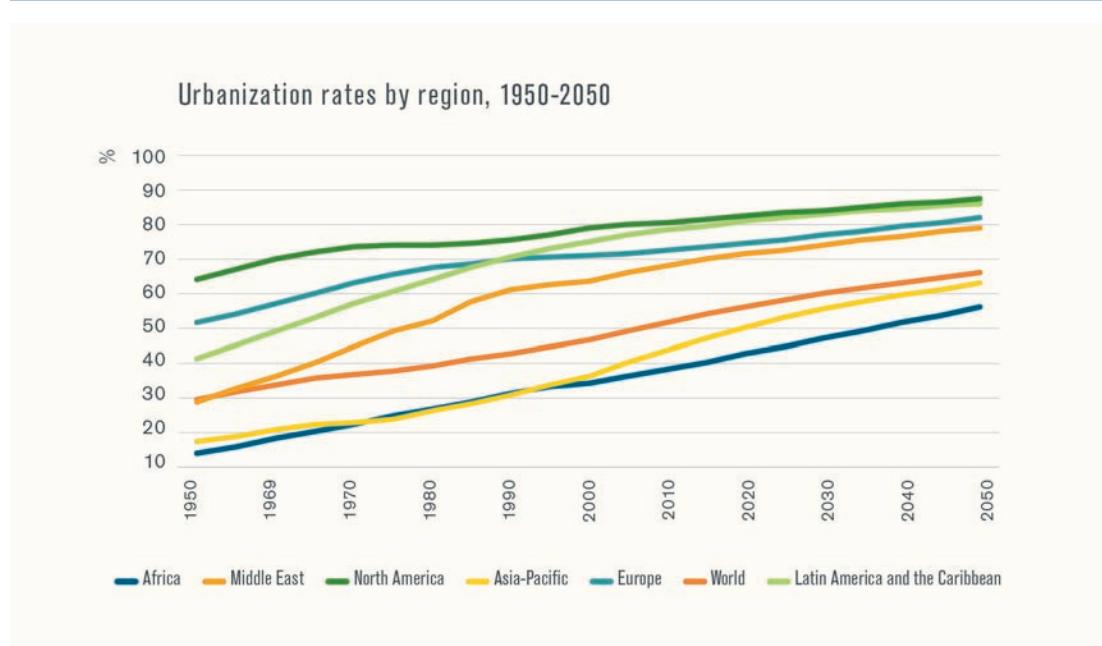
Urbanization in Asia-Pacific has some additional distinctive features. For example, population densities are generally very high compared to elsewhere in the world. And unlike in Western and Latin American countries, where the process of urbanization has matured, and urban population might even decline in the coming decades, Asia-Pacific's cities are likely to continue to grow at least until the end of this century. Recent United Nations projections confirm that urbanization there still has a long way to go, with cities escalating in number and size.

### VARYING SHIFTS TO THE CITY

Among the 1.1 billion new urban dwellers in Asia-Pacific from 2015 to 2050, 589 million will be in South Asia, 268 million in East Asia and 206 million in South-east Asia. East Asia will be the most urbanized sub-region; the Pacific the least. In developed Asia-Pacific, the share of urban residents was close to 90 percent in 2015,

In the last 30 years,  
Asia-Pacific added  
over a billion people  
to its cities; it will  
add another billion in  
the next 30 years

**FIGURE 5.1:**  
**The pace of urbanization in Asia-Pacific has accelerated rapidly**



Source: Based on UN DESA 2014a.

and will surpass 94 percent by 2050. By contrast, urbanization rates in developing Asia-Pacific are much lower, and will not exceed 50 percent of the population until 2025.

Urban growth to date has been fastest in East and South-east Asia (Figure 5.2). In East Asia, urbanization is well above the world average, and is expected to reach 78 percent by 2050, close to that of Europe. Over a century, the number of urban residents in the sub-region will have shot up from 119 million to 1.25 billion people.

Urbanization in South-east Asia has followed a relatively linear growth pattern, from 16 percent of the population in 1950 to 48 percent in 2015, and to an expected 64 percent in 2050. It has been driven mainly by middle-income countries, especially Indonesia, Malaysia and the Philippines, each of which will have an urban majority by 2015. Low-income countries remain more rural, with city residents in 2015 comprising only 21 percent of people in Cambodia, 33 percent in Timor-Leste and 34 percent in Myanmar. Even in 2050, the urbanization rate in Cambodia is projected to remain at less than 40 percent.

In South Asia and the Pacific, urbanization has evolved more slowly. The former reached an urban share of 35 percent in 2015, with an

urban majority expected by 2050. Driven by skyrocketing growth in the urban populations of Bangladesh, India and Pakistan, the number of South Asian city dwellers will grow from 78 million to 1.2 billion between 1950 and 2050. Nepal and Sri Lanka, however, will likely remain at less than 40 percent urban in 2050. Oceania is and will remain the world's most heterogeneous region, where levels of urbanization above 85 percent in Australia and New Zealand contrast with those below 20 percent in countries such as Papua New Guinea and Samoa.

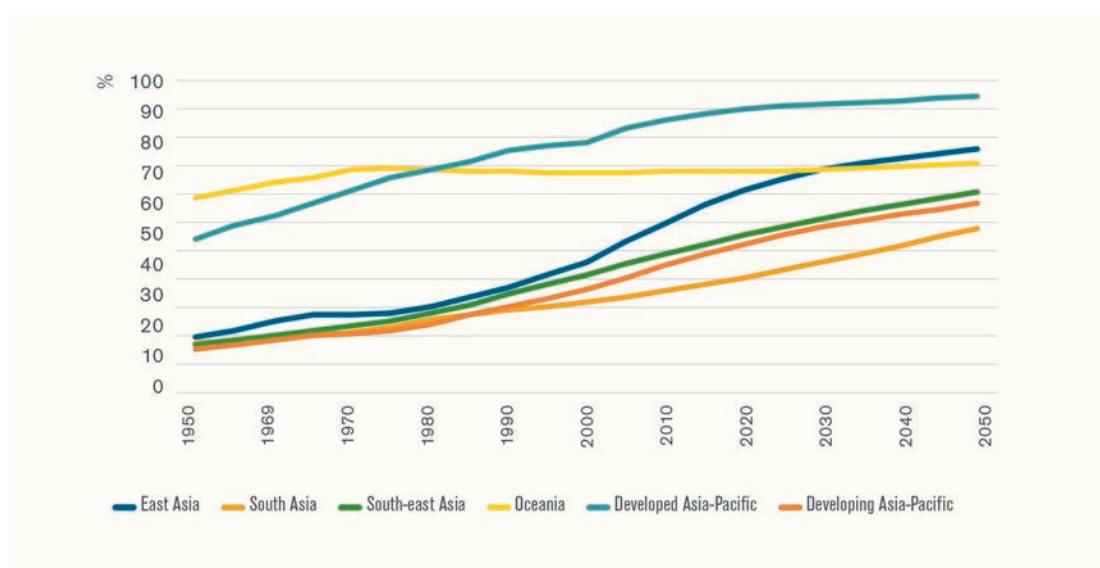
There is considerable variation in the level and speed of urbanization among Pacific islands. Between 1970 and 2015, the share of the urban population increased from 15 percent to 19 percent in Melanesia, 46 percent to 67 percent in Micronesia, and 34 percent to 43 percent in Polynesia. By 2050, urbanization rates are projected to reach 28 percent, 72 percent and 48 percent, respectively. Due to continued reliance on subsistence agriculture, traditional patterns of land tenure and remote locations, countries such as Papua New Guinea and Samoa will continue urbanizing very slowly.

Looking at current urbanization rates, countries can be grouped into three categories: low, medium and high, based on 33.3 percent and

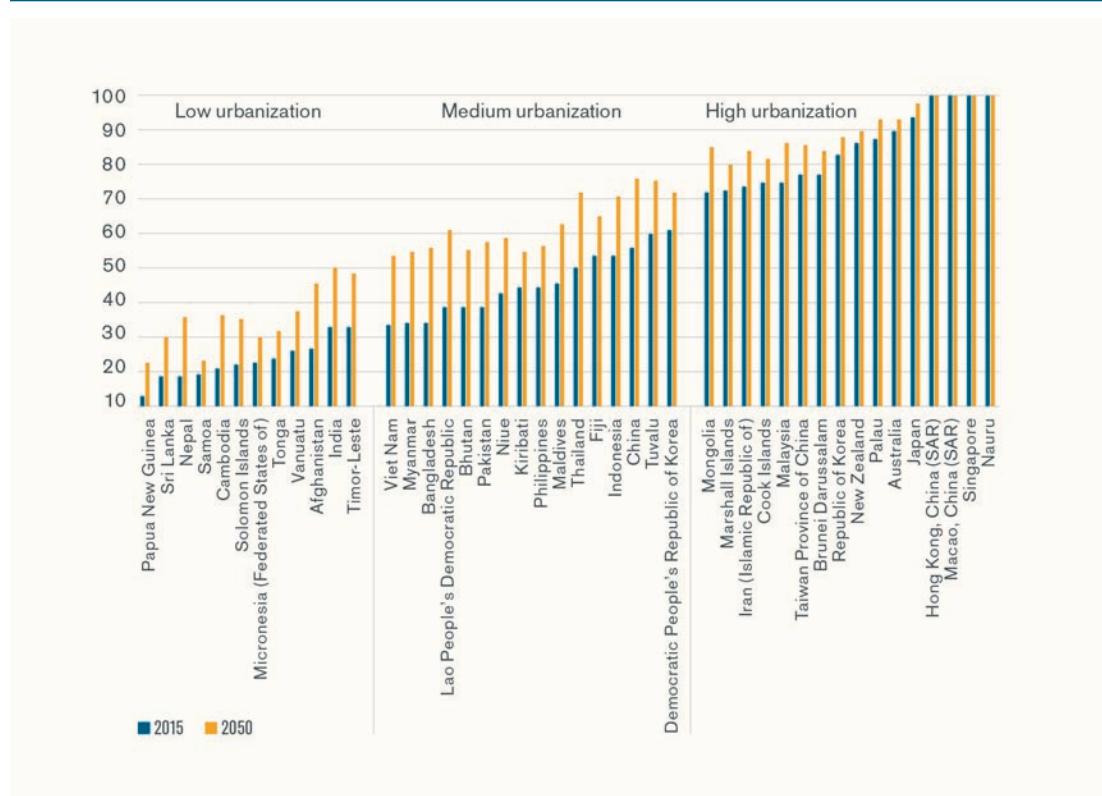
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**South Asia has  
urbanized more slowly  
than East Asia**

**FIGURE 5.2:**  
**Urbanization rates vary considerably within Asia-Pacific**



**FIGURE 5.3:**  
Even countries with fewer people in cities are now urbanizing rapidly



Source: Based on UN DESA 2014a.

66.6 percent cut-off points. Most high urbanization countries are in East Asia, while countries with low rates are in South Asia (Figure 5.3). Pacific island countries cross the high, medium and low urbanization groups. Even countries with low and medium levels, however, are now urbanizing rapidly, with large increases in city populations expected by 2050.

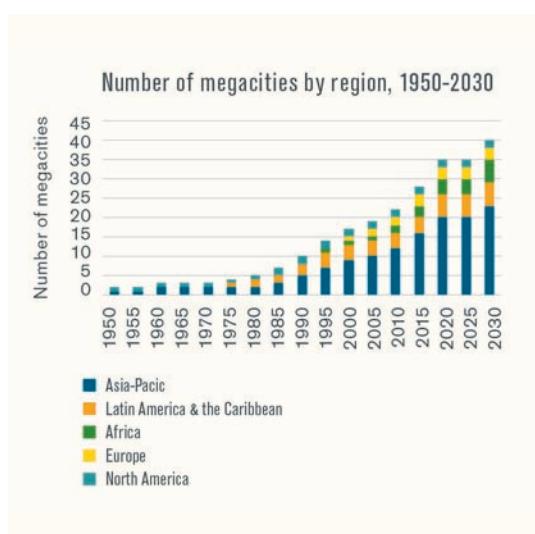
Urbanization rates are projected to increase in nearly all Asia-Pacific countries or areas between 2015 and 2050. Bangladesh, China, India, Indonesia and Pakistan will each have at least 50 million additional urban dwellers by 2050, together accounting for nearly half of global urban population growth.

#### FROM MEGACITIES TO SMALL AND MEDIUM CITIES

Cities in Asia-Pacific are remarkably diverse, starting with their population size, which stretches from less than 300,000 people to more than 30 million. ‘Megacities’ with over 10 million residents have attracted much attention, and will continue to grow in number and size. In 1975, only three cities globally had more than 10 million residents: Tokyo, New York and Mexico City. There were 23 in 2010, with a predicted 37 by 2025, 19 of which will be in Asia-Pacific (Figure 5.4).

Several megacities, such as Manila, Jakarta and Bangkok, have expanded into sprawling mega-urban regions that stretch 50 kilometres to 100 kilometres from the city centre, engulfing small towns, cities and rural areas on the urban periphery on a scale never seen before. In 2025, 10 cities will likely have more than 20 million people, of which six will be in developing Asia-Pacific—Delhi, Shanghai,

**FIGURE 5.4:**  
A majority of the world's megacities are  
in Asia-Pacific



Based on UN DESA 2014a.

Mumbai, Dhaka, Beijing and Karachi. Delhi is projected to nearly double in size between 2000 and 2025, from 16 million to 33 million residents, becoming the second most populous city in the world.

Small cities with populations of less than or equal to 1 million people, and medium cities with populations between 1 million and 5 million<sup>7</sup> are increasing as well in Asia-Pacific (Figure 5.5). The number of smaller cities is expected to rise from 558 in 2015 to 728 in 2050, almost double the number in 2000. During the same time, the number of medium cities is projected to increase from 196 to 255. Countries have already been experiencing this rapid rise. In the Philippines, for example, the number of cities with 300,000 to 500,000 people increased from 5 to 12 between 2000 and 2015. Over the same period, in India, the number rose from 41 to 61. The number of cities in China with 500,000 to 1 million people shot up from 81 in 2000 to 155 in 2015, and is expected to reach 194 by 2030. Medium cities also grew rapidly in China from 58 to 89 during 2000 and 2015, with a predicted expansion to 125 by 2030.

While the rise of megacities is an important trend, they accounted for only 14 percent of the region's overall urban population in 2015, a share expected to rise to only 16 percent by 2025. By

**FIGURE 5.5:**  
The numbers of small and medium cities are on  
the rise



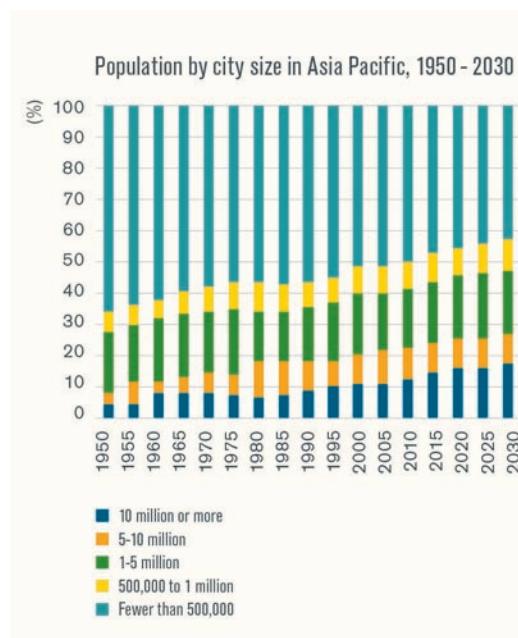
Based on UN DESA 2014a.

contrast, 75 percent of urban dwellers will be in cities with fewer than 5 million people (Figure 5.6). Nevertheless, the share of the smallest cities will likely contract—among those with fewer than 500,000 people, the share is expected to dip to 40 percent in 2025, from 51 percent in 2010. Megacities are most prominent in South Asia—22 percent of urban inhabitants will likely call them home in 2025, compared to only 6 percent in East Asia. A majority of China's urban residents now live in medium cities.

While megacities drive worldwide growth, the contribution of smaller cities will rise. Megacities no longer outgrow national economies, and their share of global GDP is predicted to shrink slightly from 14 percent in 2007 to 13 percent in 2025. Because of their sheer numbers, cities with between 150,000 and 10 million residents will make a rising contribution to GDP growth, and will comprise 50 percent of total growth from 2007 to 2025.<sup>8</sup> Smaller cities, however, face challenges due to lack of experience and limits on, among other elements, their authority, managerial capacities and scope for generating revenues. As they grow rapidly, they may struggle to keep up.<sup>9</sup>

**Megacities still drive global growth, but no longer outgrow national economies.**

**FIGURE 5.6:**  
Most people will continue to live in cities with less than 5 million residents



Based on UN DESA 2014a.

### YOUTHFUL CITIES

Cities are home to greater shares of youth and adult working-age people than rural areas,<sup>10</sup> making them pivotal places to capture demographic dividends. In 2015, youth and adult working-age populations accounted for 67 percent to 70 percent of city populations in East Asia, South Asia and South-east Asia, compared to 60 percent to 62 percent of rural ones. Rural areas are home to increasing shares of older people, with shares increasing at a faster rate between 1980 and 2015 than in urban areas (Table 5.1). Cities attract youth and young workers from rural areas in part because of the diversity they offer in terms of education, jobs and economic opportunities.

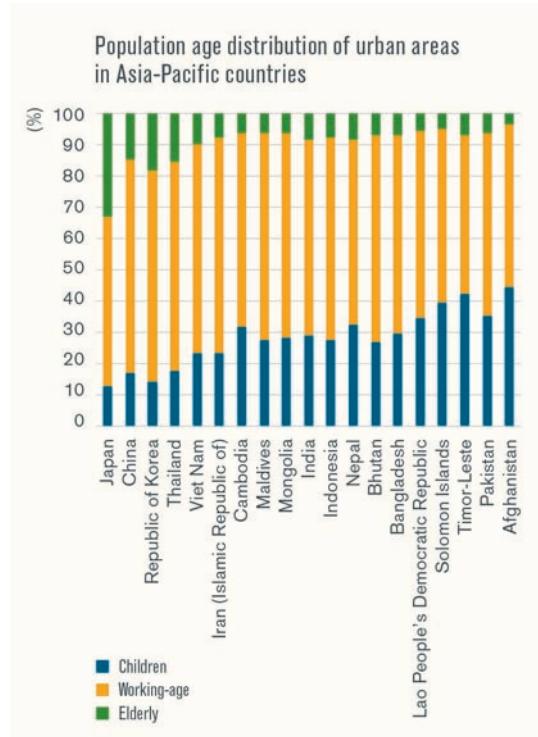
While most rural areas now have more people who are either children or elderly, the split between young and old differs by stage of development (Box 5.1 and Figure 5.7). In more developed countries, the share of older residents in rural areas is higher than that of low- and medium-income countries.<sup>11</sup> In Japan, the share of people above 60 in rural areas went up from 25 percent to 35 percent in just 15 years, from

**TABLE 5.1:**  
Cities attract young and working-age people, making them key to the demographic dividend

	Population share (%)		Rural		Urban	
	1980	2015	1980	2015	1980	2015
<b>East Asia</b>						
Children (0-14)	37	21	27	16		
Youth (15-24)	19	12	20	14		
Working-age (25-59)	36	50	44	54		
Old (60+)	8	17	8	16		
<b>South Asia</b>						
Children (0-14)	41	31	37	25		
Youth (15-24)	19	18	22	20		
Working-age (25-59)	34	42	36	47		
Old (60+)	6	9	5	8		
<b>South-east Asia</b>						
Children (0-14)	43	28	36	25		
Youth (15-24)	20	17	23	18		
Working-age (25-59)	32	45	36	49		
Old (60+)	6	10	6	9		

Based on UN DESA 2014a.

**FIGURE 5.7:**  
More developed countries have higher shares of older rural residents



Notes: Data are taken from household survey data included in the United Nations Demographic Yearbook 2013. All surveys are from 2009 to 2013 except Lao People's Democratic Republic (2005).

Source: Based on UN DESA 2014a.

## BOX 5.1:

### Age distribution in urban and rural areas tracks human development and demographics

	Republic of Korea		Indonesia		Nepal	
	2000	2014	2000	2014	2000	2014
Human Development Index	0.731	0.898	0.531	0.684	0.384	0.548
GDP per capita (constant 2005 \$)	15162	24,566	1073	1,854	290	426
Urban share of population (%)	74	82	31	54	9	19
Median age	27	41	21	28	19	23

Sources: World bank 2015d, UNDP 2014, and UN DESA 2014a.

Changes in shares of different ages in Asia-Pacific countries have had varying consequences for urban and rural areas, in many cases aligned with the stage of development. The experiences of Indonesia, Nepal and the Republic of Korea over the last 30 years show this process at work.

The Republic of Korea's transition to a high-income developed country is well documented. Between 1980 and 2013, GDP per capita rose from \$3,926 to \$23,893.<sup>12</sup> In 2013, it was classified as a 'very high' human development country with the world's 16th highest score on the Human Development Index. The Republic of Korea has urbanized and aged quickly since 1980, moving from 57 percent to 82 percent urban as the median age rose from 22 to 41.

Development has come relatively quickly to Indonesia. In 2013, it was a 'medium' human development country. From 1980 to 2013, GDP per capita tripled from \$556 to \$1,810, the urban population grew from 22 percent to 52 percent, and the median age rose from 19 to 28.

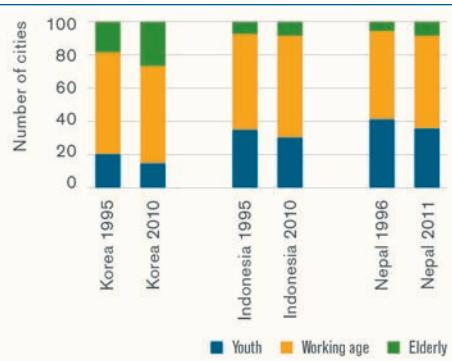
Despite progress, Nepal is one of the region's remaining least developed countries. In 2013, it was classified as a 'low' human development country, GDP per capita was \$409, the urban population share was one of the lowest in Asia-Pacific at 18 percent, and the median age was 23.

The three countries are in different stages of both development and demographic transition. Ageing in the Republic of Korea is already well advanced relative to both Indonesia and Nepal. This is most evident in rural areas, where the 60-plus population share was 27 percent in 2010. This process is largely still on the horizon in both Indonesia and Nepal. Urban areas in both countries retained about the same share of 60-plus people over the last two decades, although the share in Nepal increased slightly, and rural areas in both are now slightly older than urban areas.

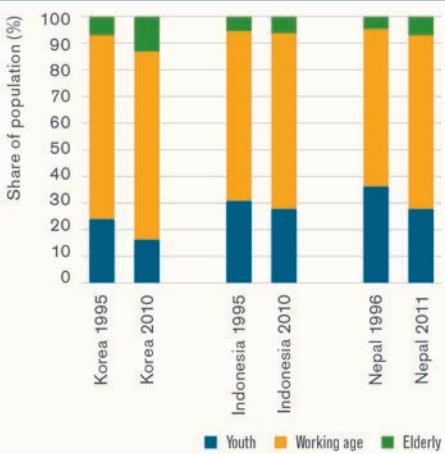
The dynamic is reversed when it comes to the working-age population. In the Republic of Korea, the share in urban areas was nearly 70 percent in 1995 and has remained largely steady since then, while the share in rural areas declined. The share of workers increased in all areas in Indonesia and Nepal, especially in cities.

All three countries are seeing a declining share of children. In Nepal, fewer children and an influx of migrant workers to cities has depressed the share of children in urban areas, although it is still sizable at 28 percent. Indonesian cities have not changed as dramatically, but about 28 percent of people in urban areas are 14 or younger. The share of young people has dropped most sharply in the Republic of Korea.

**FIGURE 5.B1:**  
**Population distribution in urban areas**



**FIGURE 5.B2:**  
**Population distribution in rural areas**



## Social, cultural and economic incentives drive migration to urban areas

1995 to 2010.

In the region's middle-income countries, the share of the population above age 60 is growing in both rural and urban areas. In Thailand, for example, it increased from 9 percent to 12 percent in urban areas and from 10 percent to 13 percent in rural areas between 2000 and 2010. While there is not yet a significant difference between rural and urban areas in middle-income countries, rural populations are slightly older. Asia-Pacific's lower-income countries are in general still the youngest overall.

In recent years, growth in the shares of urban working-age people have been most pronounced in lower-income countries. In Nepal, for example, the share increased from 59 percent to 65 percent from 1996 to 2010, and in Cambodia it went from 58 percent to 70 percent.<sup>13</sup> In both countries, shares of working-age people in rural areas also went up, but more slowly and from a lower level. In 2010, the working-age population accounted for 55 percent of people in rural Nepal and 61 percent in rural Cambodia. Middle-income countries are also experiencing a shift to higher shares of working-age people in cities. In Indonesia, for example, the share rose from 63 percent to 66 percent from 1995 to 2010, while the rural share went from 57 percent to 61 percent.

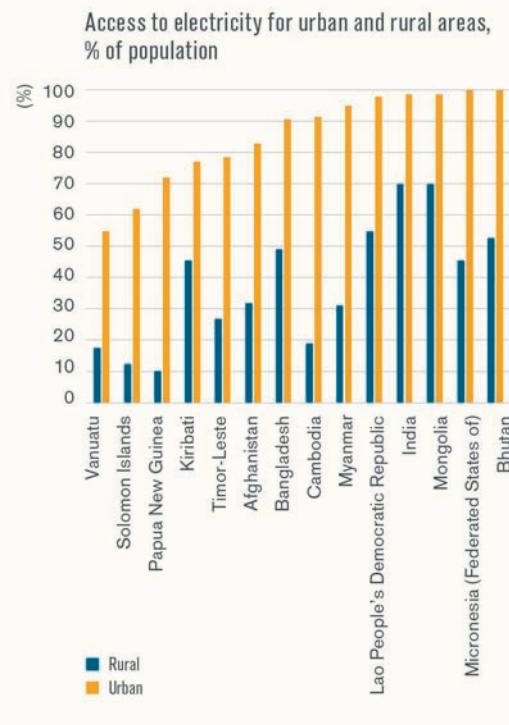
Many countries have sizable urban young populations. People below age 14 make up 30 percent or more of urban residents in Afghanistan, Bangladesh, Bhutan, Lao People's Democratic Republic, Pakistan, Solomon Islands and Timor-Leste. Their share is more than 20 percent in most countries with data available, with the exception of China, Japan and the Republic of Korea.

## MAKING THE CHOICE TO MIGRATE

The decision to migrate from a rural community to a city is a complex one,<sup>14</sup> driven by a mix of economic, social and political factors. Across Asia-Pacific, people move in search of better education, work and services, to escape climate risks and environmental damages, and to discover new social, political or cultural opportunities.

Conditions in both rural and urban areas influence the reason to move. Many rural areas are characterized by poor education, declining

**FIGURE 5.8:**  
**The urban-rural gap in services such as electricity, particularly in less developed countries, can be wide**



Note: Data are for 2012.

Source: Based on World Bank 2015a.

agricultural productivity, low incomes from farming and few opportunities for off-farm rural employment. A pool of surplus labourers has been left in search of new options, with urban centres seen by many as offering more and better jobs, across a range of occupations, and for higher wages. Some urban areas are home to labour-intensive manufacturing and export-oriented industries that have been significant employers of migrant labour, as in Bangladesh, Cambodia, Indonesia, Sri Lanka and Viet Nam.<sup>15</sup> Remittances from migrant labour now comprise a large share of rural household income in many Asia-Pacific countries.<sup>16</sup>

Big gaps in basic services also send rural people to cities (Figure 5.8). In Cambodia, 90 percent of urban residents have consistent access to electricity; less than 20 percent of rural dwellers do. In Nepal, migrants often choose destinations based on access to schools and hospi-

tals.<sup>17</sup> The importance of these preferences varies based on income level, as disparities in public services matter more to poorer populations.<sup>18</sup>

Many rural and remote areas face escalating environmental pressures, such as from degraded land and deforestation, as well as threats from the increased frequency and severity of extreme weather events that impact rural lives and livelihoods. Droughts and floods have caused people to abandon their rural communities for cities—often permanently and not by choice.

Migration in response to environmental factors is not a new phenomenon, as people throughout history have moved based on seasonal weather changes or in response to extreme weather events. But the intensity of environmental change in recent years is contributing to a growing number of ‘climate migrants’. The 2010 floods in Pakistan, for instance, affected up to 20 million people, and after six months, the majority had not recovered their prior standard of living, returned home or regained access to services. Rural people were more commonly impacted, slower to recover and more likely to be out of their homes for a longer period.<sup>19</sup>

Non-economic social, cultural and political reasons can also push rural-urban migration.<sup>20</sup> Cities are seen as places with more social and political freedoms than traditional rural communities. This can be especially true for people experiencing discrimination.<sup>21</sup> In some cases, the attraction is simply the excitement of modernity and the prospect of life in a dynamic metropolis.<sup>22</sup> Changing cultural norms are reflected in the perception of agricultural work as a lower status form of employment. All of these drivers appeal particularly to younger people, and help contribute to their predominance among rural-urban migrants.

Cities can be especially attractive to women, who might have more limited opportunities in traditional rural areas. The opportunity to challenge existing social relations and norms, escape social constraints of the local community, and exercise new freedoms related to social interaction and political participation can be enticing reasons to migrate. A large share of rural-urban migrants have been women in some Asia-Pacific countries,<sup>23</sup> more commonly in South-east Asia, especially Myanmar, Thailand and Viet Nam, than in South Asia.<sup>24</sup>

## KEEPING UP WITH AN URBAN BOOM: POTENTIALS AND PITFALLS

Urbanization has long been linked with higher living standards. Most of the world’s richest countries are also the most urban (Figure 5.9).<sup>25</sup> In Asia-Pacific, excluding the fully urban islands of Hong Kong, China (SAR); Macao, China (SAR) and Singapore, the richest four countries—Australia, Japan, New Zealand and the Republic of Korea—have more than 80 percent of their populations living in cities. Most of the poorer countries are still predominantly rural, including Afghanistan, Cambodia, Nepal and Papua New Guinea.

A similar relationship holds for urbanization and human development (Figure 5.10), where urbanized countries have the highest Human Development Index scores, while the least urban have among the lowest. Cities concentrate industries and highly skilled workers, generating jobs, increasing levels of technology, and improving skills development and education. Through economies of scale, they can provide social services and infrastructure at costs that can be up to 30 percent to 50 percent cheaper than in sparsely populated rural areas.<sup>26</sup> People in cities typically end up healthier, better educated and wealthier than their rural counterparts.

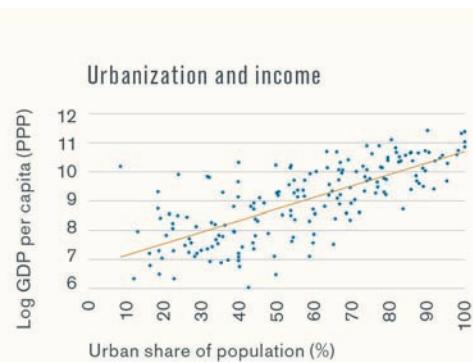
In most countries, urban areas are the main source of economic activity, usually exceeding their share of the national population.<sup>27</sup> Opportunities for innovation and the concentration of economic activity influence the birth of new industries, and the growth and transformation of existing ones. Transportation costs are lower, with large urban areas typically well connected to markets. Many are magnets for a disproportionate share of foreign direct investment.

The world’s cities in aggregate now account for 80 percent of global GDP.<sup>28</sup> Large cities in China, with more than 1 million people in each, generate 56 percent of total national GDP, a contribution expected to reach 75 percent by 2030.<sup>29</sup> But how much individual cities produce varies, based on factors such as location and the quality of city governance. For those in the midst of demographic transition, it also depends

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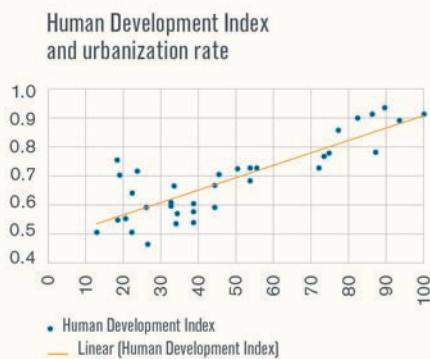
Countries that  
are more urban are  
also richer

**FIGURE 5.9:**  
**Wealth tends to rise with urbanization**



Sources: Based on UN DESA 2015a and World Bank 2015a.

**FIGURE 5.10:**  
**Urbanized countries rank higher on the Human Development Index**



Notes: Human Development Index values are from 2014, urbanization rates are for 2015.

Sources: based on UNDP 2015a and UN DESA 2015a.

The benefits of urbanization have not been equally shared

on the ability to nurture a capable workforce, and absorb its talents through the generation of decent work.

Whether measured in terms of growth, human development or demographic dividends, urbanization's full potential can only be reached one way: through the people who live in cities. Sound urban management is imperative so that cities become places where every resident has opportunities to thrive. Issues of equity and access are paramount, particularly since the benefits of urbanization have not been equally shared.

## URBAN POVERTY AND SOCIAL EXCLUSION

One of the most compelling challenges for Asia-Pacific cities today involves urban poverty and social exclusion, with future human development prospects largely hinging on how well these are managed. They often result from the failure of governments to plan for and accommodate burgeoning urban populations. Many new city inhabitants end up poorly integrated into city structures, including those necessary for secure and well-paid jobs, adequate housing, and high-quality education and health care.

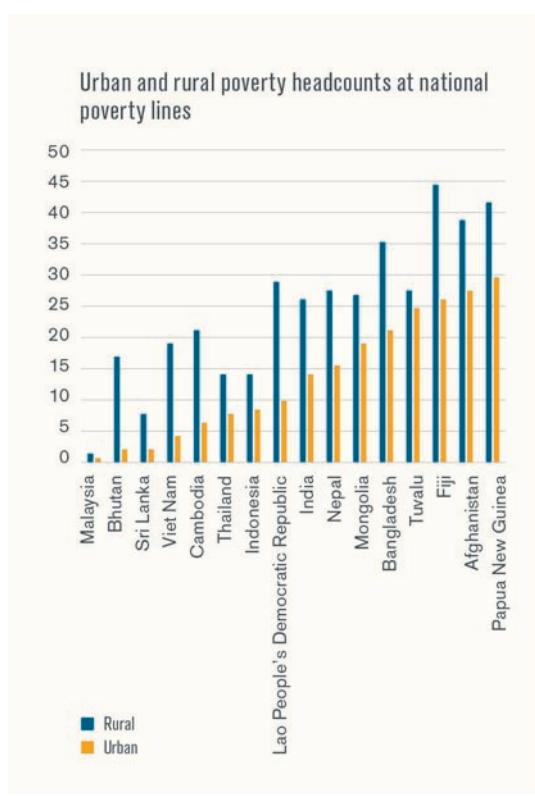
In Viet Nam and Thailand, for example, rural-urban migrant households tend to have fewer assets, live in worse housing conditions, are further from quality public schools, and have lower adult educational levels than urban native households.<sup>30</sup> In several countries, new arrivals lack access to formal systems of social protection or legal status, which exposes them to risks.

Urban poverty rates are generally lower than those in rural areas in Asia-Pacific (Figure 5.11). As city populations are so large, however, the numbers of urban poor are still high in many countries. For example, despite significant progress in reducing urban poverty in India in the last two decades, it still has about 81 million impoverished urban residents.<sup>31</sup>

Differences in the pace at which poverty rates are falling in rural and urban areas are in fact reshaping the face of poverty in Asia-Pacific. Rural poverty in the region has declined by 2.5 percentage points annually, but urban poverty, while lower, fell by only 1.5 percentage points. The share of urban poor among impoverished people overall increased from 18 percent in 1990 to 23 percent in 2008, reflecting the 'urbanization' of poverty.

The level of urban poverty and pace of poverty reduction vary between East Asia and the Pacific and South Asia. In the former, the prevalence of urban poverty dropped sharply from 24 percent to 4 percent from 1990 to 2008 (Table 5.2); the poverty rate in rural areas is now five times higher. South Asia also substantially reduced urban poverty, but not as rapidly. Its share of the urban poor within Asia-Pacific has risen significantly, from 47 percent in 1990 to 80 percent in 2008. Across the region, urban

**FIGURE 5.11:**  
**Poverty rates are lower in cities**



Note: the data used for each country is for the latest year available.

Source: Based on World Bank 2015a.

poverty is lower in the largest cities,<sup>32</sup> since many small towns offer services not much better than those in rural areas.

Many towns and cities, however, suffer from relatively poor standards in terms of public water supply, sanitation, drainage and waste management services. This underscores the importance of urban poverty reduction strategies grounded in an integrated approach of developing basic infrastructure and essential services while also promoting employment and livelihoods, particularly for women and other vulnerable groups (Box 5.2).

Across Asia and the Pacific, measures of urban inequality tend to be higher than national averages (Figure 5.12). Patterns of urban development often exacerbate inequalities. Poor areas of cities, especially slum areas, are typically disconnected from road and transportation networks, communications technologies and energy grids. People there usually cannot obtain decent formal jobs, high-quality education and health care, good housing and the benefits of social safety nets. They are more likely to be disillusioned about the role of government and less willing to participate in civic or political activities.

Policies and the allocation of urban resources in many instances tend to favour the middle class and wealthy.<sup>33</sup> They draw more benefits, including better protection against negative aspects of urbanization, such as crime and violence.<sup>34</sup> Bias can affect land allocation practices that push the poor to the urban periphery and hazardous areas, depriving them of secure access to jobs, housing

**TABLE 5.2:**  
**In South Asia, the share of urban poor has fallen, but their numbers have risen**

	Poverty incidence (\$1.25 a day)				Number of poor			
	1990		2008		1990		2008	
Region	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban
East Asia and the Pacific	68	24	20	4	734	137	227	37
South Asia	51	40	38	21	426	122	408	152
Developing Asia	60	30	29	14	1160	259	635	189
Developing World	53	21	29	12	1471	298	889	271

Source: ADB 2014e.

## BOX 5.2:

### Pioneering urban poverty reduction initiatives in Bangladesh

Despite significant reductions in the incidence of urban poverty from 35 percent in 2000 to 21 percent in 2010 in Bangladesh, urban poverty conditions, particularly in slum areas, are still severe. Initiatives such as the Urban Partnerships for Poverty Reduction (UPPR) and the Urban Governance and Infrastructure Improvement Project (UGIIP), which engaged international donors, national and local governments, and community beneficiaries, have contributed to further reductions through capacity development and community participation. They have proven so successful that the Government of Bangladesh has made a commitment to scale them up.

The UGIIP focused on improving urban governance and infrastructure by helping local governments enhance capacities to deliver municipal services, while simultaneously encouraging public engagement in the process. Sixty-five municipalities partic-

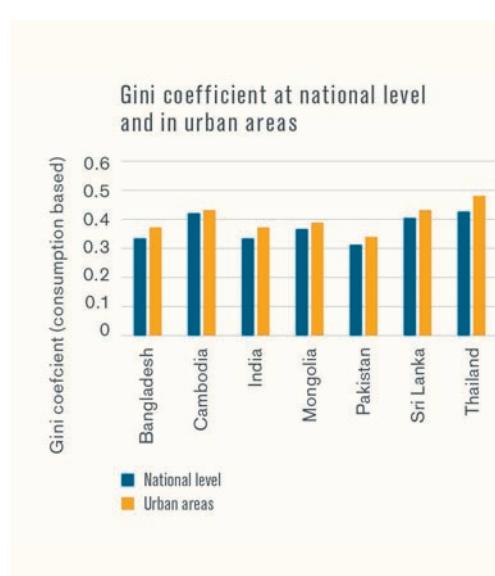
ipated and achieved impressive results. Efficiency in tax collection improved, staff learned to use computers to issue trade licenses and water bills, accounting and billing were computerized, streets were cleaner, residents became more aware of their responsibilities, and annual budgets and development projects were discussed and endorsed by citizens.

By developing the capacity of 3 million slum dwellers to plan and manage their own development, the UPPR has worked to break the cycle of poverty. It mobilized more than 800,000 urban poor households to form inclusive groups and prepare community action plans. It also assisted households to access credit through a community banking scheme, and savings and credit groups. A settlement improvement fund improved access to clean water and sanitation.

Source: UNDP-Bangladesh 2015, ADB 2012, Ferdousi and Dehai 2014.

Slums are still prevalent even in prosperous cities

**FIGURE 5.12:**  
**Inequalities in urban areas are often worse than national averages**



Notes: Displays consumption-based Gini coefficients and compares estimates for urban areas to those for the whole nation in approximately the same year: Bangladesh (2000), Cambodia (2004), India (2005), Mongolia (2008), Pakistan (2005), Sri Lanka (2007) and Thailand (2006). Urban Gini coefficients represent the estimate for all urban areas in each country except for Thailand, which uses the Gini coefficient for Bangkok.

Sources: Based on UNESCAP and UN-HABITAT 2010, World Bank 2015a.

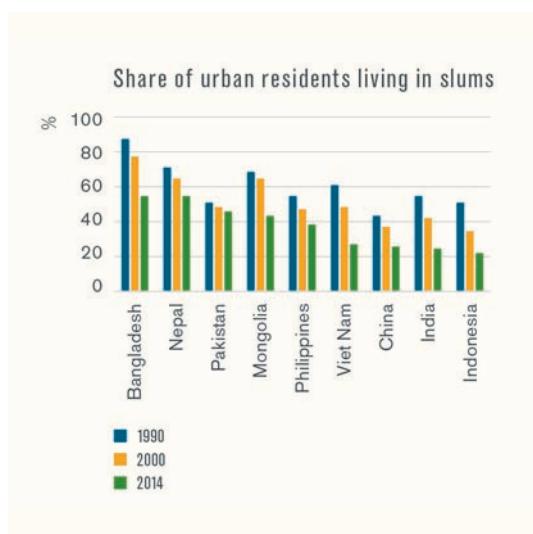
and land. Poor women, the young and old are even more severely affected by these situations, as they are more vulnerable to exploitation.<sup>35</sup>

Inequalities in the region's sprawling slums are larger than in the cities (Figure 5.13),<sup>36</sup> especially in South Asia. In Bangladesh and Nepal, about 55 percent of urban residents struggle to survive in slums, as do 45 percent in Pakistan. While there has been progress in reducing slums in the last two decades, particularly in East and South-east Asia, they are still prevalent even in some rapidly growing economies. The share of urban residents living in slums is 27 percent in Viet Nam, 38 percent in the Philippines and 25 percent in China.

While shares of slum dwellers have fallen in some cases, their sheer numbers, on average, have risen. In Bangladesh, the number climbed from 20 million to 29 million from 1990 to 2014, even as the share fell from 87 percent to 55 percent. The number increased over the same period in China and Pakistan (Figure 5.14).

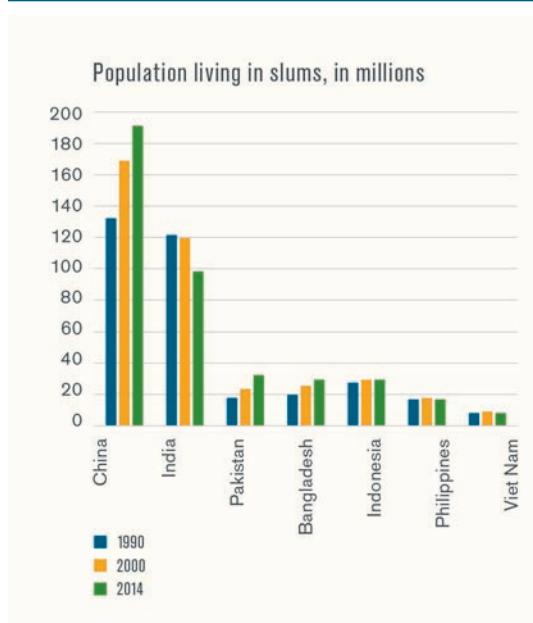
One of the key targets in Agenda 2030 is to upgrade slums, and ensure access to adequate, clean and affordable housing. Singapore offers an example of how this can happen. Ranked today as Asia's greenest city, and as having the

**FIGURE 5.13:**  
**High shares of urban residents still live  
in slums**



Source: UN DESA 2015a.

**FIGURE 5.14:**  
**The number of people living in slums  
is increasing**



Source: UN DESA 2015a.

best business environment and being the best place to live, Singapore was once a city with polluted rivers and massive infrastructure and housing shortages. In the 1950s, more than 50 percent of its people lived in slums and squatter settlements. In 1960, the government initiated a new public housing programme to provide affordable housing for low-income communities. Based on careful planning and coordinated development, guided by well-equipped institutions and regulations that have evolved as needed over time, and rooted in the principle of being responsive to people's needs, the programme has had a central role in making Singapore the flourishing city it is today. More than 80 percent of people live in publicly constructed housing, 90 percent of whom are homeowners. Over 99 percent of the city's slums have been cleared as alternative, improved housing became available, contributing to urban renewal. Satisfaction with public housing consistently surpasses 80 percent.<sup>37</sup>

## ENVIRONMENTAL SUSTAINABILITY

In driving economic activity and human development gains, cities consume vast quantities of energy, water and other resources, and generate more greenhouse gas emissions and waste than rural areas. The responses of city governments to these challenges will have direct consequences on human development and the long-term sustainability of both cities and nations—and the world.

World Health Organization (WHO) latest data on 2,000 cities show pollution worsening globally, but the problem is most acute in Asia-Pacific. In 2014, 15 of the 20 most polluted places were in India and China. The others were in Bangladesh, the Islamic Republic of Iran and Pakistan. Of the worst 100, nearly 70 were in Asia and only a handful in Europe or the United States.<sup>38</sup>

Air pollutants in particular are extremely hazardous to human health, with consequences such as respiratory illness, lung cancers and premature deaths among babies. In a number of Asian cities, levels are significantly above WHO recommendations. Growing public concern has motivated stepped-up efforts to curb pollution, such as by imposing traffic rules to reduce private

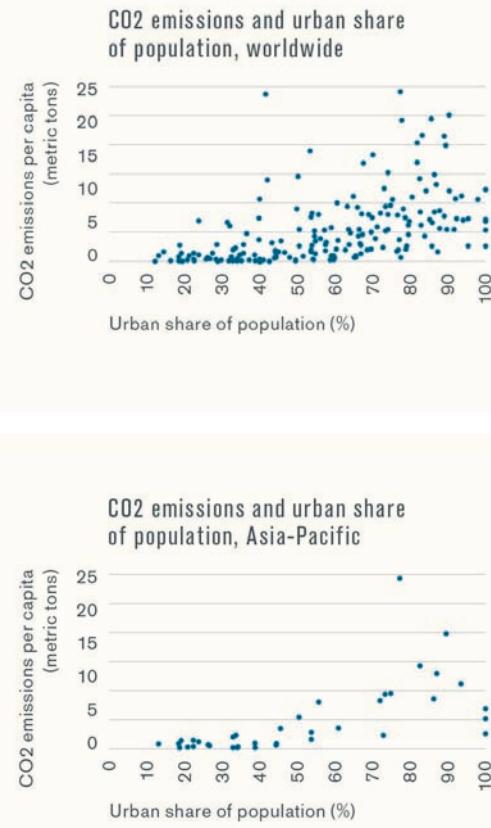
15 of the 20 most  
polluted cities in  
the world are in India  
and China

vehicles on the road. Beijing issued its red alert, the highest of a four-level alert system, twice in the last five years, leading to a complete halt in traffic movement, industrial work and commuter movement. So far, actions like these have not significantly curtailed pollution, but they have brought some additional benefits such as reducing road congestion and fuel usage, and raising public awareness.

Rapid urbanization also spurs greenhouse gas emissions (Figure 5.14)—the world’s cities as a whole emit around two-thirds of the total even as they occupy only 2 percent of total land area.<sup>39</sup> One encouraging dimension is that as cities develop, they can more efficiently control emissions. In some large cities, including Seoul, Tokyo and Sydney, per capita emissions

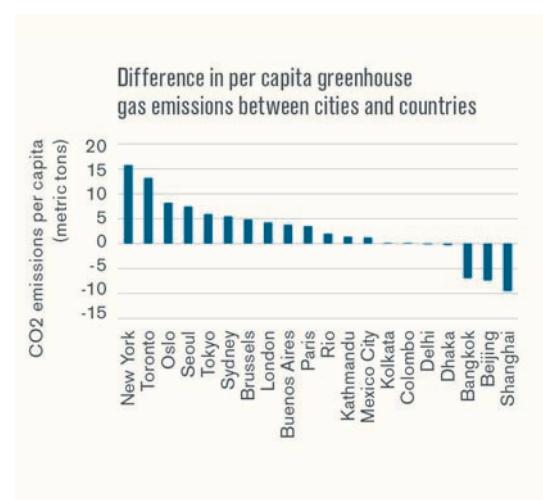
**FIGURE 5.15:**  
As people move to cities, greenhouse gas emissions rise

Cities tend to have a larger climate footprint



Source: UN DESA 2015a.

**FIGURE 5.16:**  
Per capita emissions in Asia-Pacific developing country cities are higher than national averages



Source: World Bank 2015a.

are lower than national averages—a trend so far largely taking place in the most developed and advanced cities (Figure 5.16). Elsewhere in Asia-Pacific, Dhaka, Bangkok, Beijing and Shanghai all release emissions at higher rates than the national average.

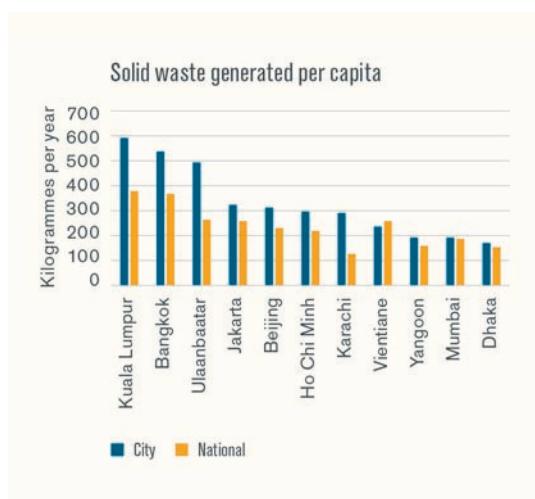
People in cities typically generate more solid waste than those in rural areas, and the largest cities tend to surpass national averages (Figure 5.17), as is the case for Kuala Lumpur, Bangkok, Ulaanbaatar and Jakarta. With urban expansion, this problem will become even more acute, and cities will need to develop ways to both manage and decrease waste. In the Republic of Korea, the Government’s Extended Producer Responsibility system, for instance, requires manufacturers to recycle a certain percentage of their waste. Since its implementation in 2003, it has saved an estimated \$1.6 billion, in addition to providing environmental benefits.

While the risk of natural disaster has always been high in Asia-Pacific’s cities, climate change poses ever worsening threats (Box 5.3). Rising sea level threatens cities in low-elevation coastal zones, including Tokyo, Dhaka, Shanghai and Mumbai. Greater water scarcity is likely in the future, as flooding contaminates freshwater supplies. Urban infrastructure is often ill equipped to deal with natural disasters. For

the poor, the risks are even greater, as many are forced to settle in areas with the least protection from flooding and other dangers. With limited savings or coverage by social safety nets, they may be unable to recover from a disaster, which can perpetuate the cycle of poverty and limit human development across generations.

In 2011, 70 percent of Asia-Pacific cities with more than 750,000 people were considered at high risk of natural disaster. This translates into 562 million vulnerable people—a number that will undoubtedly grow. Across the region, 73 cities are deemed particularly vulnerable, being at high risk of at least two different natural hazards.<sup>40</sup> These include Tokyo (cyclones and floods), Shanghai (cyclones and floods) and Kolkata (droughts and flood). Manila is one of the most vulnerable cities; already home to 12 million people, it is in danger of being hit by cyclones, earthquakes and floods.

**FIGURE 5.17:**  
**Cities tend to generate more solid waste than rural areas**



Source: Waste Atlas 2015.

### BOX 5.3: Effective planning can reduce urban vulnerabilities

Coastal cities and urban areas in Asia-Pacific, especially those with dense populations in slums, are highly vulnerable to natural disasters, with the risks expected to increase dramatically through climate change. In the last few years, urban flooding has affected millions of people in Bangkok (2011), Chennai (2015), Dhaka (2015), Jakarta (2013), Karachi (2009) and Manila (2012). In Dhaka, 30 percent of people live in slums near water edges that make them more vulnerable to coastal flooding. In Jakarta, 40 percent of the land is below sea level, leaving the city highly vulnerable to flash floods during rainy seasons. A number of Asia-Pacific cities are susceptible to earthquakes, particularly where city structures do not comply with adequate building codes, as was observed in the fatal 2015 earthquake in Kathmandu.

Better city planning, early warning systems and effective urban governance can help reduce the risks and impacts of natural disasters. Understanding and communicating risk, reducing risk and managing risk are three key elements that countries in the region need to look into as part of sustainable urban development planning. In particular, greater attention need to go towards building resilience and ensuring city development adapts to climate shocks.

Many urban areas  
are highly vulnerable  
to natural disasters

#### DISASTERS IN ASIA-PACIFIC: 2005-2014



Source: UNDP 2015b, The Guardian 2010.

## MANAGING THE REGION'S CITIES<sup>41</sup>

As Asia-Pacific's cities grow, they confront vast demands for land, housing, jobs, infrastructure, water, energy and social services. Many are already operating at nearly full capacity, and lack the necessary institutions, policies and investments to provide additional services and infrastructure for growing populations. In terms of governance, cities and urban governments in Asia-Pacific are among the weakest in the world.

If urbanization is not well managed and soon, however, Asia-Pacific will likely not sustain the momentum of economic growth or human development, and it will lose much of its demographic dividend. The most serious impediments include weak public administration and limited authority, inadequate capacity, financial deficits,

and public policies biased towards the middle and upper classes. These are not new issues, but unprecedented urban growth will increasingly complicate the ability of policy makers to respond effectively, underlining the need to tackle persistent challenges earlier rather than later.

Asia-Pacific currently has diverse administrative and political systems to manage its cities, ranging from those that are more centralized and top down, as in China and the Republic of Korea, to those that are more decentralized, for example, in Indonesia and the Philippines. Customary and traditional laws and governance systems prevail in some places, often coexisting with modern state institutions, as in Malaysia and many Pacific island states.

Most governance systems are plural and multitiered (Table 5.3), spanning central governments, state/provincial governments, local governments, and an array of autonomous municipal corporations and metropolitan bodies.<sup>42</sup> The composition, powers and practices of local governments vary, typically deriving from legislation or directives from higher levels of government. In towns and smaller cities, the governance structure generally includes a policy-making body such as a town or city council, and an executive arm such as a mayor. But these bodies are often vested with only limited authority. Central governments usually remain responsible for raising most tax revenue, spending the largest share of the public budget, and defining rules for how subnational governments operate, even if the latter are charged with local service delivery.

The Philippines has three levels of local government: province, city and municipality, and barangay. While all chartered cities<sup>43</sup> have their own corporate and administrative entities governed by specific municipal charters, the national government has strong influence over local governments, which have limited authority to collect taxes and largely rely on central revenue allotments. In Malaysia, by contrast, local governments collect assessment taxes, create by-laws, and grant licenses and permits. They provide basic amenities, collect and manage waste and garbage, and plan and develop the area under their jurisdiction. The Federal Ministry of Housing and Local Government coordinates and standardizes practices across the country.

Municipal governments in Asia-Pacific are among the weakest in the world

**TABLE 5.3:**  
**Most countries have multiple tiers of government**

Country	Levels of government and administration (number)
Cambodia	<b>3 levels*</b> - · Province (23 including 3 municipal) and capital · District (159) and municipality (26) · Commune and sangkat (municipal commune) (1,621) divided into villages
India	<b>3 levels*</b> - · State (28) · Union territory (7) including federal district · Urban local bodies: municipal corporation (138), municipal council (1,595), town council (2,108); rural local bodies: zilla (593), samity (6,087), gram/village (239,432)
Indonesia	<b>3 levels*</b> - · Province (33), special region (2) and capital city · Local government: kota (cities, 98) and kabupaten (districts, 410) · Desa/villages: very limited roles (69,249)
Philippines	<b>3 levels*</b> - · Province (79) · City (112) and municipality (1,496) · Barangay/village (41,944)
Notes: * not counting central government.	

Source: Smoke 2013.

## **BOX 5.4:** **The Metro-Manila Development Authority: Mandated responsibilities come with limits**

In 1995 the Congress of the Philippines passed a law establishing the Metro-Manila Development Authority and designating Metro-Manila as a special development and administrative region. The Authority was given powers related to metro-wide development planning; transport and traffic management; solid waste disposal and management; urban renewal, zoning and land use planning; health and sanitation; urban protection and population control; and public safety.

But despite its mandated responsibilities, the Authority cannot override local authorities. It can carry out its responsibilities only without affecting the autonomy of local government units (7 cities and 10 municipalities) within its area. As a result, often it acts as an adviser.

Source: Oreta 1996.

## **BOX 5.5:** **An urban infrastructure deficit in Karachi**

The population of Pakistan's largest city, Karachi, has more than doubled since 1990, making it one of the fastest growing cities in the world. Despite multiple urbanization plans, implementation obstacles prevail. These include frequent procedural delays, an unclear institutional framework and weak coordination among municipal agencies.

The lack of planned citywide infrastructure has resulted in significant service deficits. For example, the Karachi Circular Railway, the only nationwide commuter train, terminated service in 1999. Future population growth will only compound this gap, which will be further exacerbated by the environmental consequences of increased use of private vehicles.

Sources: Gopinathan 2014, Kahn 2014, Qureshi and Huapu 2007, Dawn News 2015, World Bank 2015d.

In some cases, local or national governments can set up metropolitan entities, such as the Metro-Manila Development Authority. But such arrangements are complicated in practice and require clear policy and management structures, and the capacity to address interjurisdictional issues (Box 5.4).

Large metropolitan areas—including mega-urban corridors (e.g., the Mumbai-Pune development corridor in India), megacity-dominated metropolitan regions (e.g., Metro Manila in the Philippines) and subnational mega-urban regions (e.g., the Pearl River delta region in China)—usually have governance structures falling in one of three basic types.<sup>44</sup> These may allow autonomous local governance, where each city, town and municipality within the city-region is in charge of its own planning, policy-making, regulation, etc. Under mixed regional governance systems, the most common type, authority and responsibilities are distributed to different institutions and levels of government. Unified regional governance involves a single governing body that plans, manages, finances, supports and maintains services in an area-wide territory.

The devolution of administrative powers in some countries permits the election of heads of city administration and more autonomy, such as in terms of budgets. Motivations and models for decentralization are diverse,<sup>45</sup> but a common tendency is for fiscal decentralization to fail to follow on the heels of administrative decentralization, leaving cities with responsibilities, but not much control over resources to pay for them. The chronic imbalance between government—especially local government—responsibilities and local revenues is in fact an important contributor to weak governance and corruption.

Especially in small cities, local governments have limited authority to collect revenues, low capacity for financial management and planning, and difficulty accessing private capital, issues that result in a failure to fully harness local revenue mobilization potential, and undercut abilities to provide essential services and infrastructure (Box 5.5). Table 5.4 summarizes revenue mobilization authority in three megacities: Jakarta, Manila and Mumbai.

Most local governments remain highly dependent on intergovernmental transfers, with amounts varying. In the Philippines, the man-

Limited authority  
to collect revenues  
is one major challenge  
for local governments

**TABLE 5.4:**  
**Revenue mobilization options vary considerably for the region's major cities**

Authority		Jakarta*			Manila			Mumbai**		
Control Over:	Rate setting	Base setting	Collection	Rate setting	Base setting	Collection	Rate setting	Base setting	Collection	
<b>Revenue</b>										
Property tax	P	N	P	F	F	F	P	P	F	
Taxes on vehicles	F	F	F	N	N	N	N	N	P	
Fees	F	F	F	F	F	F	P	P	F	
User charges for services	F	F	F	F	F	F	P	F	F	
<b>Expenditure</b>										
Expenditures from own-revenue			F			F			F	
Expenditures from inter-governmental transfers			P			F			P	
<b>Inter-governmental transfers</b>										
Distributable pool			Formula based			Formula based			Formula based, ad hoc	
Distribution across local governments			Formula based			Formula based			Ad hoc	
Purpose of transfers			Unconditional block grant, conditional earmarked grant			Unconditional block grant			Unconditional block grant, conditional earmarked grant	
Management of transfer system			N			N			N	
Discretion to borrow			P			F***			P	

**Notes:** Control of the local government: F = Full control; N = No control; P = Partial control.

\* Property tax is in the process of devolution to the local government level. This will give full authority over base setting, collection, and, up to a limit, rate setting. Jakarta is currently piloting bond issuance.

\*\* In theory, the city has control over setting rates. In practice, the state exercises considerable control through its approval powers.

\*\*\* Local government units are accorded the power to undertake loans and borrowings subject to a statutory debt limit; annual debt service cannot exceed 20 percent of income.

Source: Sud and Yilmaz 2013.

## Poor urban infrastructure reduces urban economic prospects

dated transfer is 40 percent of gross national internal revenues, which accounts for 94 percent of total transfers to subnational governments. In Indonesia, the amount is set at a minimum of 25 percent of the national budget, constituting about 75 percent of local government revenues. While most countries have more than one type of transfer, there is a trend towards consolidation.

All cities need resources for infrastructure and services for their citizens, given direct links to human development and the realization of the demographic dividend. These also improve city competitiveness and growth prospects—or the opposite where gaps occur. Dhaka's inadequate and intermittent power supply costs an estimated 8 percent per year of GDP, for instance.<sup>46</sup> In Latin American cities, poor or inadequate infrastructure is estimated to have reduced urban economic output by 10 percent to 15 percent. The impact seems to be

even higher on small firms and home-based enterprises, which cannot afford more reliable private sources, such as power generators and wells for water.<sup>47</sup>

Successful cities anticipate demand rather than playing constant catch-up, yet as urban populations expand, infrastructure demand often quickly outstrips supply due to constrained municipal finances. Providing even the most basic infrastructure becomes difficult. For Asia-Pacific as a whole, an estimated \$8 trillion will be needed for national infrastructure in the areas of energy, transport, telecommunication, water and sanitation from 2010 to 2020 to redress historical underinvestment and keep up with population growth;<sup>48</sup> much of this will investment will have to be made in urban areas

# REALIZING THE FULL PROMISE OF URBANIZATION

How countries and cities respond to the challenges of urban poverty and inequality, pollution and climate change, and governance will determine whether or not they deliver broad-based human development and optimize benefits from the demographic transition. The current exclusion of large segments of urban residents from the economic, social and political life of cities needs to be reversed, because it is unjust, and contradicts the Agenda 2030 emphasis on inclusive development. By depriving some groups of basic human capabilities and rights—to be educated, healthy and earn a decent income—it also undercuts the potential for higher productivity and making the most of the demographic dividend.

Governments and all others with a stake in a liveable urban future will need to commit to improved services, the generation of decent employment and extended protection measures, particularly for the most marginalized. This includes as well a sustainable urban environment that supports the health of all citizens, and manages resources so that they are equitably available for generations now and in the future.

Where cities fail to ensure urban inclusion and liveability, they can end up with a growing class of urban poor and deepening social division. Urban populations will likely continue to split along class lines, where the middle- and upper-classes will enjoy well-paying jobs, high-quality health care and schools, a clean supply of water, and safe housing in clean neighbourhoods. The poor will be marginalized to the worst work and living areas, without equal access to high-quality services, and with diminishing capabilities. This does not have to be the future of Asia-Pacific's cities—but it may be, without timely and deliberate policy interventions.

## FORMULATE COMPREHENSIVE NATIONAL URBAN STRATEGIES

National and local governments need to become more strategic and sensitive to the full range of threats and opportunities posed by rapid urbanization, with the speed at which it is occurring

leaving little time for adjusting or learning. A clear, far-sighted view of where cities should head is key, and a national strategy on the role of urbanization in national development is a first step forward. It could help to identify urban development priorities, provide national and regional spatial plans, and better coordinate actions by national and local actors, including the private sector.

Under it, governments at all levels can help cities become more equitable, efficient, sustainable and environmentally friendly, including through making informed trade-offs on the use of scarce resources such as land and water. The strategy should be linked to overcoming governance fragmentation in public policy formulation and implementation, as key to addressing issues such as disorderly expansion in urban peripheries. A sound property rights protection system and transparent land registry are critical in leveraging rapid urbanization for economic development.

**Plan land use to connect urban and rural areas.** This should be an integral aim of national urban strategies. The various disparities between rural and urban areas, in particular, suggest the need for an ‘evening out’ process, including through targeted investments and an equitable distribution of resources to help reduce spatial inequalities. A broader territorial perspective can emphasize stronger connectivity between cities, towns and rural areas, and promote two-way links, including to foster economic opportunities and enhanced quality of life in rural areas.

Urbanization could catalyse rural economic development by pulling large numbers of underemployed and unemployed rural workers into urban areas. Market and other urban-rural connections could help stimulate the development and application of modern farming practices, and the growth of vibrant rural non-farm activities. Investments in better services and enhanced human capital in rural areas can also yield benefits, including to slow the tide of rural-urban migrants<sup>49</sup> where that is warranted, and to ensure that if people do choose to move, they have skills to compete for well-paying jobs in urban areas and can contribute to labour productivity and thus economic growth.<sup>50</sup>

In some sense, the region cannot get its urbanization strategy right without fundamentally

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Rapid urbanization calls for proactive planning and sound management

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## **City governments need to have the necessary resources and authority for better planning and service delivery**

shifting a mindset that separates rural from urban development. Like the two sides of the human brain, these areas are closely intertwined; each can either limit or unlock possibilities in the other.

**Integrate sectors and services.** National urban policy should provide a general framework to orient actions by the diverse ministries and service providers with an impact on urbanization. Housing, transport, basic infrastructure and other policies need to become more flexible and adapted to the realities of cities and towns. Housing, land management and property administration responsive to needs that vary across different age groups—such as requirements by elderly citizens to have accessible buildings and transport links—require specific policies and improved legal and regulatory frameworks. Coordinated planning and implementation of diverse policies helps ensure that they are well aligned and build on each other.

### **MOVE TOWARDS MORE EFFECTIVE GOVERNANCE AND INSTITUTIONS**

Strengthening the capacities of national, regional and city governments to develop more liveable, productive, inclusive and sustainable cities requires a strong legal foundation, capable institutions and adequate financial instruments, including to manage decentralization, coordination and collaboration. Sound planning, based on a well-defined understanding of often rapidly shifting trends and dynamics, including those related to the demographic transition, should be aligned with a vision of how a city can deliver human development, in a sustainable manner, to all its citizens.

**Aim for well-designed and managed decentralized government.** This is the foundation of effective urban service delivery. The devolution of appropriate responsibilities and resources should cover issues such as clearly defined functions, accountability, independent financial resources, and autonomy to make decisions on investment and service delivery. City authorities need adequate technical and managerial skills, and strong capacities to design, implement, monitor and evaluate local public policies and

works. Moving towards a more proactive, bottom-up urban policy, in other words, calls for more than designing a new territorial administrative structure.

Both horizontal and vertical coordination are important. The first works across sectors, such as transportation and land use, and neighbouring towns and cities. The second orchestrates actions by central, provincial and city governments. An integrated urbanization ministry, such as India's Ministry of Urban Development, can help champion the urban agenda and facilitate consistent coordination.

**Make governance inclusive.** Participatory governance can propel well-balanced urban development, and should ensure the involvement, on an equal footing, of women and all other excluded groups. Elected local governments can do much to ensure, for instance, that quality services reach everyone in a fair manner. Decentralization can change the way citizens interact with governments. In Indonesia, the introduction of direct elections of provincial and local government executives and legislatures has helped make them more accountable to local electorates. The Philippines witnessed a noticeable increase in citizen participation in local governance through new mechanisms for consultation, including local referenda and a requirement that members of non-governmental organizations comprise 25 percent of local development council representatives.

**Improve information flow, including through technology.** In many Asia-Pacific cities, it can be difficult to find information about municipal activities; data collection and management is generally poor. But some, such as the Bangkok Metropolitan Authority, publish information on the use of funds, and citizens are free to request information via official procedures. Bangladesh has enacted comprehensive right-to-information legislation, yet some 29 percent of citizens have reported facing harassment and 8 percent have recounted having to pay additional money when seeking information from public authorities.<sup>51</sup> India is developing 100 'smart' cities that harness digital and information technology to improve the quality of life. Smart cities are essentially urban clusters with smooth transportation links,

e-governance, and better social infrastructure, including for health care and education. ICT will be used to improve day-to-day city management and provide real-time information guiding efficient service provision.<sup>52</sup>

Increasingly, Asia-Pacific cities are using new technologies, especially e-governance, to bolster transparency and access to information. In India, Mumbai has set up an online public complaint management system, while Bangalore has posted the city's quarterly financial statements online.<sup>53</sup> Malaysia's Ministry of Housing and Local Government has instructed all local authorities to use computers and the Internet for public transactions.<sup>54</sup> In general, several issues block more widespread application of e-governance, however, including a 'digital divide', problems in connecting different systems across government entities, and security and privacy concerns.

#### **SECURE ADEQUATE FINANCE AND DISTRIBUTE IT EQUITABLY**

Many cities need to find ways to address the chronic imbalance between local government

responsibilities and their revenue. As a basic starting point, each city, regardless of size, needs a well-defined administrative area over which it has full autonomy, and a clear formula for intergovernmental transfers. In Organisation for Economic Co-operation and Development (OECD) countries, governments have created transparent, formula-based finance-allocation mechanisms, rather than ad hoc ones, to fund their cities. Over time, if capacity for local government administration improves, localities can often boost local resource mobilization, such as through better tax assessment and collection practices. They can also ensure more equitable distribution, and plan more systematically for infrastructure investment, operations and maintenance (Box 5.6).

Large metropolitan governments have significant economic bases and can be expected to have higher local revenue mobilization capacity, compared with smaller cities. They might be capable of self-financing given their economic resources and potential fiscal capacity. Such an arrangement favours making proportionally larger transfers to smaller and medium cities with insufficient capacity to fund public services.

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New partnerships,  
alternative financial  
instruments and  
effective resource  
mobilization underpin  
successful cities

#### **BOX 5.6: Better financial management boosted income in Ahmedabad, India**

About 80 percent of Ahmedabad Municipal Corporation's income is derived from taxes levied on residential and non-residential properties, and goods imported into the city. But at one point, the collection rate was very low, so in the mid-1990s, the Corporation decided to implement a series of improvements.

These included stiffening penalties for avoidance of taxes on goods, and the preparation of valuation books on the basis of prevailing market rates. Goods entering the city were randomly verified to prevent underinvoicing and undervaluation. Additional vigilance squads were deployed in round-the-clock checking of vehicles entering the city, and checkpoints were equipped with systems for rapid communication.

In terms of property taxes, stronger enforcement was taken against defaulters, including by shutting down water and drainage services. Warrants were issued for attachment of movable and immovable properties. Properties were put to auction for tax recovery.

Through these strategies, the city's income rose by 50 percent after one week and doubled after one month. Later, the city registered its first annual surplus in 10 years. After paying off its debts, the municipality decided to access the debt market and obtained a credit rating, becoming the first South Asia city to obtain a rating of A+.

After six months, the rating was improved to AA, higher than that of the national Government. The city issued municipal bonds in 1998 and raised \$25 million from over 5,000 investors to finance infrastructure development.

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## Investing in essential infrastructure propels growth and human development

**Consider alternative instruments of finance to increase fiscal self-reliance.** These could include user fees, real estate taxes, municipal bonds, land-based financing instruments, development impact fees,<sup>55</sup> tax increment financing, special tax districts, business improvement districts within cities, and redistribution of property tax base growth within a metropolitan area.<sup>56</sup> Options should be considered based on a sound assessment of local capacities for management. Municipal bonds are increasingly used to raise capital, where bond markets have begun to emerge. In Viet Nam, Ho Chi Minh City issued the country's first municipal bond in 2003 to supplement capital for infrastructure investment. Principal and interest payments came from the city's budget. This opened a new fundraising channel and was replicated in other Vietnamese cities.<sup>57</sup> Similar instruments have been used in Bangladesh, Indonesia and the Philippines.

User fees and charges are another option for funding. In many Asia-Pacific countries, user fees cover substantial parts of urban services such as electricity, water and public transport. They can be beneficial both for containing excessive demand and increasing the supply of public services. Appropriate user fees for environmentally sensitive services such as waste collection, water treatment and transportation can help contain environmental degradation. A congestion charge or parking fee can be an effective instrument for regulating traffic and decreasing air pollution, while funding urban infrastructure.

**Explore new partnerships to finance infrastructure.** In the Philippines, Mandaluyong City used a public-private partnership to rebuild its public market. In China, India and Indonesia, public-private partnerships have been used to stimulate affordable housing construction for the poor.<sup>58</sup> Careful consideration needs to be given to these partnerships to ensure they provide a public benefit and minimize public risk, however, including through a clear initial process of assessment, and sound project design and management.

**Ensure resources reach the most vulnerable.** Raising sufficient resources only serves human development goals if they are used to promote balanced growth and reach underserved or

disconnected populations. Fair and effective resource allocation has always been a challenge in Asia-Pacific, both at the local and national levels.

Allocations in urban areas need to prioritize providing services to vulnerable communities and reaching all people at all stages of life. Intergovernmental transfers should aim to equalize economic and income disparities among local governments, recognizing that the dominance of primary cities in Asia-Pacific has often resulted in skewed regional development. One approach is to compensate for inequalities through income transfer mechanisms and targeted investments in disadvantaged areas, such as in infrastructure and public education. Effectiveness depends on long-term strategic planning to allocate resources appropriately, ensuring they reach first the poorest and most vulnerable communities.

## IMPROVE INFRASTRUCTURE TO MAKE CITIES MORE COMPETITIVE

A substantial infrastructure gap exists across the region, with cities plagued by power cuts, poor quality roads, inefficient ports, inadequate schools and insufficient transit systems, among other issues. While some progress has been made in narrowing the deficit over the past few decades, much more needs to be done to remove bottlenecks and upgrade systems that make cities competitive and positioned to sustain economic growth.

**Close the infrastructure deficit.** To make cities more liveable, governments need to provide high-quality infrastructure—physical and social. Asia-Pacific's ability to continue growing at current rates and advance its human development will largely depend on adequate transport, energy, water, waste management, banking services, telecommunications, drainage, flood control and preparation for the adverse effects of climate change, among other issues. Infrastructure provision needs to be inclusive, reaching all citizens—including through targeted investments to reach the most marginalized people. It should also be environmentally sustainable. Integrated transport infrastructure, for instance, can link people to jobs, convey products, connect economic centres, stimulate business development and reduce air pollution.

## **BOX 5.7:** **How competitive are Asia-Pacific's cities?**

The Economist Intelligence Unit developed the 2025 City Competitiveness Index to rank the competitiveness of 120 cities across the world based on their ability to attract capital, businesses, talent and visitors today and in 2025. The index includes 27 qualitative and 5 quantitative indicators.

North American, European and Asia-Pacific cities—namely New York; London; Singapore; Hong Kong, China (SAR); Tokyo; Sydney; Paris; Stockholm; Chicago and Toronto—are the top 10 most competitive cities today and are likely to retain their advantages until 2025, despite concerns over ageing populations and infrastructure. Many cities in China and

the Republic of Korea have already made it into the top 50, while a number of Indian cities are expected to soon catch up with East Asian ones. Mumbai is among the top three in terms of rapidly improving competitiveness.

The quality of a city's infrastructure and institutions along with easy maritime access help them rapidly ascend in the overall rankings. Cities of all sizes can be competitive. For example, in 2025, the top 10 most competitive cities are expected to range from the world's biggest (Tokyo, with an estimated population of 37 million) to some of the smallest (Zurich, estimated population 1.4 million).

Source: The Economist Intelligence Unit Limited 2013.

**Build competitiveness:** Many factors that affect countries' competitiveness, such as infrastructure, the presence of educational and research institutions, and the quality of public administration, are directly linked to urbanization. While some Asia-Pacific cities are successful in attracting talent and investment, and ensuring prosperity and good public services for their citizens, others are struggling to cope with challenges such as the large-scale influx of people from rural areas or the inability to provide decent jobs or housing.

Currently, North American and European cities, along with some in Asia-Pacific, namely, Singapore; Hong Kong, China (SAR); Tokyo and Sydney, are among the world's most competitive, an advantage they will likely retain until around 2025, despite ageing populations and infrastructure (box 5.7). Developing cities in Asia-Pacific countries need to reinvent themselves and build their competitiveness, including to leapfrog rivals in other parts of the world. Some key priorities are to increase institutional effectiveness, establish mature and well-recognized financial systems, improve quality of life, bolster appealing urban social elements, maintain a safe and clean environment, and aim for global appeal. One important aspect of physical infrastructure is citywide high-speed wireless networking, which can eliminate the need to lay cables, improve communications, and help draw new talent and investment.

### **INTEGRATING CITIZENS INTO URBAN ECONOMIES, SOCIETIES AND POLITICAL PROCESSES**

Since exclusion is a critical impediment to human development in urban areas, every effort needs to be made to integrate marginalized populations and new arrivals. Beyond targeted spending on infrastructure and services, this includes support for finding decent work, and encouraging greater citizen participation in governance.

**Open doors to migrants.** Carefully crafted policies for rural-urban migrants should aim at protecting their rights and well-being, including by ensuring access to justice, health-care, education and other essential services. This can enhance development outcomes in both urban and rural communities. Urban migration registration systems and unemployment insurance, access to finance and job training are among the tools to help migrants gain a foothold in the urban economy. Initiatives targeting young people should promote skills development, employment opportunities, and social and political participation, since youth who migrate to cities often have limited means and low levels of education, and are at high risk of exploitation.

**The rights of all citizens should be protected, including rural-urban migrants**

**Take special measures related to age, gender and disability.** Cities will need to adapt their structures to accommodate a growing number of older people—a process already underway

in East Asian cities, and occurring in the near future in many others. This entails taking proactive measures to ensure adequate health care, financial security and opportunities for civic participation. Many large cities need to review and extend social pension schemes. Both Hanoi and Ho Chi Minh City have increased the benefit level above the mandated rate, but these pensions have reached only 63 percent of targeted populations, compared to 89 percent in other urban areas and 78 percent in rural areas.<sup>59</sup>

Urban planning strategies also need to pay specific attention to the rights and needs of women and girls, as well as people with disabilities. Safe street lighting and adequate policing can reduce rates of gender-based violence. Ramps and elevators are among the many interventions improving mobility for the disabled.

**Tap the benefits of citizen participation and collaboration.** Building well-designed, inclusive and ecologically friendly cities demands partnership and decision-making involving a spectrum of actors—national and local governments, civil society, community-based organizations, non-governmental organizations, international supporters, academia and private sector entities. Since governments may not possess all the resources required to provide urban infrastructure and services at the rate and scale demanded, citizen participation can be a way to build consensus on priorities, efficiently allocate scarce funds, and pinpoint the most needed improvements in economic and social development.

Bridging the still often wide gap in many Asia-Pacific cities between citizens and governments involves strengthening lines of accountability, and increasing government transparency and openness. Governing approaches need to commit to responding to citizen needs. In some cases, greater local accountability has come through involving local users in evaluating service delivery, establishing benchmarks for institutional and service quality, strengthening the performance of the civil service and enacting anti-corruption legislation.

International assistance has in some areas helped push practices of public engagement forward. Through participatory budgeting and allocation mechanisms in Bangladesh, Indonesia,

Pakistan and the Marshall Islands,<sup>60</sup> citizens influence choices to allocate public resources in their community. In Pune, India, municipal authorities have involved residents in budgeting processes at the ward level, leading to better solid waste collection and public transport.<sup>61</sup>

**Encourage citizen action.** Citizen action also opens room for participation, as well as innovation and creative problem solving (Box 5.8). Increasingly, urban dwellers, rich and poor, are organizing to improve local government responsiveness. The Asian Coalition for Community Action Program supports a community process of citywide upgrading in 150 Asian cities, including through conducting community-driven surveys, networking, building partnerships, dealing with eviction problems and strengthening community savings among the urban poor.<sup>62</sup>

Women have organized to influence solid waste management in Pammal, a rapidly growing industrial town on the periphery of Chennai, India's fourth largest urban region. They initiated a neighbourhood-wide clean-up and waste-recycling campaign eventually championed and expanded by the mayor of Chennai.<sup>63</sup>

## BUILD ENVIRONMENTALLY SUSTAINABLE CITIES

The massive growth of Asia-Pacific cities over the past 40 years has significantly affected the environment, with fallout felt from the local to the national levels, and even across borders. Increasingly, the environmental costs of not dealing with rapid urbanization will be excessive and difficult to reverse. It is more cost-effective to begin now to plan and work towards sustainable urbanization.

**Scale up environmental management.** Urban areas need new environmental management measures to protect their environments, clean up pollution and waste sites, and reduce carbon emissions, as highlighted in Agenda 2030. There is deepening understanding of the need to improve energy efficiency, develop renewable energy and cleaner production technologies, adopt green growth strategies (Box 5.8), and put cities at the centre of national plans to mitigate and adapt to climate change.

Conservation and efficient use of resources should be central principles in green urbanization strategies. Massive amounts of solid waste, for instance, could be turned into a resource through composting, recycling, the production of bio-gas and so on. Since buildings generate 40 percent of greenhouse gas emissions, green housing programmes can encourage use of sustainable materials, and efficient heating and cooling systems. Another priority is renewable energy. In the Republic of Korea, Seoul plans to expand its renewable energy share from 1.5 percent in 2007 to 20 percent by 2030, with nearly half to come from hydro energy.<sup>64</sup>

**Consider compact cities.** Fostering urban agglomeration and promoting green and compact cities need to be at the core of national urbanization strategies. Left to themselves, private developers tend to favour building on lower cost peripheral land, which may contain housing costs in the short-term, but at the expense of long-term transport costs for households and capital infrastructure costs for government. Urban sprawl and the spread of low-density settlements can make public services more expensive and difficult to provide, and dramatically increase traffic congestion and emissions. Denser forms of urban development, encouraged through restrictions on the expansion of the urban boundary, may help achieve more sustainable patterns. Countries such as China, India, Japan and Republic of Korea have begun pursuing the concept of compact and smart cities, including to reduce per capita carbon emissions.

**Plan for disasters.** Cities need to ensure they are equipped to minimize damage and recover from natural disasters, particularly given growing threats from climate change. Impact assessments should identify vulnerable locations, populations and sectors, and climate change and disaster risk reduction should be integrated into urban planning and development. Strict regulations should govern development projects in high-risk areas, and standard building codes should be improved.

**Make a political commitment.** Building sustainable cities depends critically on the political will of governments, combined with a supportive

## BOX 5.8: A programme in Thailand empowers slum dwellers to solve housing issues

Launched in 2003, the Baan Mankong programme, implemented under the Ministry of Social Development and Human Security, has used a people-driven housing development process where slum communities are empowered to find solutions to housing problems in their cities. The programme stresses improved access to credit, training, land and infrastructure, as well as more supportive regulations and policies. It has cultivated partnerships among poor communities, local authorities, development agents and landowners in slum upgrading.

By 2011, the programme had supported nearly 91,000 households in 277 cities. Among other achievements, it has helped solve eviction problems, develop secure land tenure, upgrade slums, and repair and develop housing.

Source: Community Organization Development Institute 2016.

administrative, financial and legal framework, and robust planning that connects the many issues at stake. China has started to build a low-carbon economy and called for a new style of people-centred urbanization in its first urbanization policy released in March 2014.<sup>65</sup> Its focus is on making cities fairer for migrants and the new middle class, with the aim of repairing social exclusion, and embracing sustainable city management as an explicit means of sustaining growth. China has recently pledged to spend \$280 billion on measures to reduce air pollution over the next five years, while requiring 15,000 factories, including state-owned enterprises, to disclose data on airborne emissions and water discharge (Antholis 2014). The Republic of Korea has started promoting low-carbon and green growth in urban areas (Box 5.9).

**Green growth  
strategies are urgently  
needed in cities**

## ADAPT TO CITY DIFFERENCES

There is no single strategy for guiding urbanization, at the national or local level. Priorities and choices depend on a variety of factors—such as the scale and speed of urbanization, the pace of rural-urban migration, available resources, technical and administrative capabilities, and political appetites.

## **BOX 5.9:** **The Republic of Korea embarks on low-carbon, green growth**

In 2008, President Lee Myung-bak launched 'low-carbon, green growth' as the Republic of Korea's new vision for national development for the next 60 years. National carbon emissions have grown fast during decades of rapid urbanization and industrialization, leaving the Republic of Korea among the top emitters globally.

The country's green growth is now guided by a comprehensive set of objectives, strategies and implementation actions. The objectives are: to promote a synergistic relationship between economic growth and environmental protection, improve people's quality of life and bring about a green revolution in their lifestyles, and contribute to global action to fight climate change and other environmental threats. The ultimate aims are to reduce greenhouse gas emissions by 30 percent, and for the Republic of Korea to rank among the world's top five green energy powerhouses by 2020.

Green growth is supported by political commitment, interministerial coordination, public investment, enabling legislation and public-private-community involvement. To kick-start the process in 2009, the Presidential Committee on Green Growth was established. Supported by 12 task forces of public and private sector experts, the committee has

prepared various sectoral and issue-specific plans, roadmaps and initiatives including the national green growth strategy (2009-2050), and convened public hearings and seminars to generate public support. The Framework Act on Low-Carbon Green Growth was passed, mandating a cap on emissions. It establishes a system of mandatory reporting of carbon emissions by all carbon and energy-intensive industries.

Overall, four main policy instruments have been identified for green growth: public investment in infrastructure and research and development to support a low-carbon society; regulations and incentives to stimulate market development and support an energy-conserving society; market correction measures to account for externalities and strengthen climate actions; and moral suasion through education and mass media campaigns.

Since 2009, the number of venture start-ups in green industries has increased by more than 40 percent. The national bullet train network is being expanded to connect most major cities nationwide by 2020, and the number of households who have joined a carbon point system to curtail emissions reached 2 million in 2011.

**Policy-making  
must respond to the  
unique challenges  
that each city faces**

Source: The Republic of Korea Culture and Information Service 2011.

Some differences arise from demographic transition, with cities likely to track overall national trends. Countries on the cusp of transition might draw benefits from encouraging people to come to cities, given the association with reductions in fertility and mortality rates. At that point and further into the transition, cities offer jobs essential to the well-being of individuals and to prospects for reaping a demographic dividend. On the far curve of transition, as cities age, priorities need to include elements of access and protection vital to older citizens.

The stage of transition can also determine the source of urban growth, which in older countries tends to be from migration, and in younger countries stems from migration as well as still higher fertility rates within cities themselves. The source of growth has different policy implications, but all should be aligned with human development aims. For example, if 'push' factors such as rural poverty drive ru-

ral-urban migration, then viable responses might include fostering rural development, including through measures to raise farm productivity, and incentivize small and medium non-farm enterprises. On the other hand, 'pull' factors propelling rural-urban migration likely reflect urban dynamism. In this situation, countries can focus on urban services infrastructure such as housing and transport to sustain consistent quality of life.

**Tailor urban strategies to city size.** Whether the issue is finance, participation or sustainability, urban strategies will likely differ based on the size of cities. Megacities attract the greatest share of national and international investments. Their management is complex, involving interjurisdictional coordination. Some priorities for action include developing new urban management strategies—a city-wide mega-politan body, for instance, might be set up to oversee efforts by all

local authorities to provide public services and develop resource allocation plans. These cities could in many cases rely more heavily on their own financing rather than transfers from higher levels of government, perhaps freeing resources for smaller cities in greater need. New laws and appropriate wealth transfer mechanisms could back strategic resource planning to equitably distribute resources among all municipalities and peri-urban areas within the megacity and its adjoining areas.

By contrast, smaller cities face critical problems with poor infrastructure, limited technical capacity and constrained resources. Their priorities may need to include capacity-building initiatives that hone urban planning and management skills, enhanced infrastructure and essential services, and collaboration with neighbouring cities to define competitive niches to take advantage of economies of scale, such as through joint service delivery.

**Realize the potential of small and medium cities.** In recent years, small and medium cities have grown rapidly in many Asia-Pacific countries. They act as economic growth centres and are important as bridges between rural and large urban areas. Their potential has not yet been fully exploited, however. An increased focus on them could bring about not only higher economic growth but also greater efficiency, as they often do not face constraints such as serious traffic congestion and rental costs. Booming and dynamic small and medium cities could also play a key part in reducing income inequality and promoting balanced spatial development.

## THE REGION'S FUTURE DEPENDS ON CITIES

The unprecedented speed of Asia-Pacific urban transition has left many of the systems and institutions that manage cities behind. But countries should not view urbanization as a problem. It is in fact a powerful tool to unlock human development and capture historic demographic dividends offering enormous impetus to progress.

City and national planners need to act now to catch up, because urbanization will only accelerate. Long-range strategies should capture the scale of the coming changes, adopting investments and reforms aimed at development goals that extend beyond short-term political cycles. Governments at all levels must be committed to social inclusiveness, environmental sustainability, and improved quality of life for all citizens, rather than economic growth and efficiency alone. City planners must take up the imperative of designing specific strategies for young people, working-age people and the elderly, both as an issue of equity and to tap demographic benefits.

Across the Asia-Pacific region, urban areas are already taking actions and adopting innovations to achieve sustainable and inclusive cities. Reform can be a difficult and fragile process, dependent on sustained political support and commitment. It must remain closely attuned to diverse needs. But given the impact of urbanization on people's lives, and the potentially greater dividends for development over the long term, the region's future depends very much on better managing its cities.



# Chapter 6

AN AGENDA FOR ACTION:  
SHAPING THE FUTURE



# 6. AN AGENDA FOR ACTION: SHAPING THE FUTURE

The last several decades have deepened understanding of the dynamic relationships between population patterns and human development. Human development leads to demographic transition, which in turn can produce a demographic dividend with significant positive consequences for human development. Societies become more prosperous, productive, healthy and well educated. People are better off.

These outcomes, however, are not automatic. While demographic transition is likely to occur in every country, accelerating its arrival and realizing the full promise of any potential dividend depend largely on policy choices to steer the process. If these choices are not made, or are made poorly, a historic opportunity for human development gains will be lost.

In the world as a whole, the right choices are no more important than in Asia-Pacific, home to half the human population. They are particularly critical at a time when the need for development to be sustainable and inclusive is increasingly obvious and backed by international consensus through Agenda 2030. If resources—whether human, fiscal, environmental or any other form—are not marshalled judiciously today, and the most made of them, they will not be around tomorrow, undercutting prospects for generations to come.

Most Asia-Pacific countries, at this moment in time, are in a fortunate position. With more workers, and fewer older and younger people dependent upon them than at any point in history, they are on the cusp of a unique moment to accelerate and sustain human development. Earlier chapters of this report provided detailed recommendations of potential public policy choices. This chapter outlines some priority options that might be pursued early on, recognizing that these need to be tailored to

different country and even local contexts. There are no one-size-fits-all solutions.

Some proposals generally apply to all countries; others break down across three broad stages of demographic transition, loosely defined as having a large working-age, young or ageing population. Some countries will need to consider implementing policies from different categories at the same time, because they bridge different stages of transition within their own populations. Since urbanization is a profound challenge and opportunity in many parts of Asia-Pacific, with deep connections to demographic changes, a few priorities are highlighted here as well.

## FOR ALL COUNTRIES, SOME COMMON PRINCIPLES

While national context is the starting point for designing any human development strategy and defining the stage of demographic transition, some broad considerations can help set a framework for diverse policy choices.

**Integrate demographic changes into national development plans and strategies.** Demographics might once have been considered a pursuit mainly for people working on population issues, but today, given the potential power of a demographic dividend, it is understood as relevant to many elements of public policy. To leverage demographic opportunities and accelerate human development, demographic considerations need to be integrated across core national development plans and strategies. They also need to be factored into policies and plans in many other areas, among them economic management, education, health, gender equality, youth, ageing and urbanization.

As India has recently done when formulating its 12th Five Year Plan(2012–2017), countries can use emerging demographic trends in allocating investments in education, skills training, health, job creation and social protection, among other arenas. This approach would be consistent with the 2030 Agenda, where governments in Asia-Pacific and around the world commit to an integrated approach to development, and to taking population trends and projections into account in national development strategies and policies.<sup>1</sup>

A sound understanding of demographic transition should guide this process. In countries with large shares of children and youth and high population growth rates, for example, such as Afghanistan, Kiribati, Pakistan, Papua New Guinea, Samoa, Solomon Islands, Tonga and Timor-Leste, demographic opportunities may not open fully without adequate investment in child survival and education, and without upholding sexual and reproductive health rights, including to give families the ability to choose the spacing and number of children.

Ageing societies such as Japan, Republic of Korea, Singapore and Thailand, where a

small workforce supports a burgeoning retired population, may need to adopt policies to encourage population growth. Tax incentives, family friendly employment and subsidized day care are among the measures encouraging young people to have more children.

**Increase investment in human capabilities.** Human capabilities, such as those gained from health and education, are essential at all stages of demographic transition and human development. They help initiate transition, make the most of the dividend, and ensure that momentum is maintained even as societies age. Strategies focused on human capabilities should take a comprehensive vantage point, recognizing that capabilities can and should be cultivated throughout the life cycle.

Different priorities in various phases of demographic transition may be informed by rising and falling population shares, and principles of generational balance and fairness. A country with many young children, for instance, might earmark a greater portion of resources for early childhood development and primary schools. On the other hand, a country with a large share of youth might focus on tertiary education and decent employment opportunities. An ageing society might provide special education and training on emerging technologies for older people, while scaling up pension benefits. The overarching aim should be to work, over time, towards the universality of services essential for building and sustaining human capabilities, in line with the core Agenda 2030 principle of leaving no one behind.

**Manage macroeconomics well and deliver decent jobs.** Sound macroeconomic management is fundamental for countries at all stages of demographic transition and development. Alongside overall goals for growth and stability, policy choices need to be made in line with potential demographic benefits and inclusive human development. Of particular importance is the intersection with policies related to labour and livelihoods, as these are the main conduits for most people to translate capabilities and opportunities into higher levels of well-being that, individually and collectively, offer social and economic returns. As the 2015 global Human

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A sound understanding  
of demographic  
transition is key

Development Report argues, decent work is essential for youth to get a productive start in their lives, to make the best use of a large workforce and to help meet the needs of the elderly.

There are multiple avenues to link economic objectives with the generation of enough decent jobs. These might include fostering employment-intensive sectors, particularly, in the short term, those best equipped to absorb the current workforce. Private sector development is critical, and in many countries rests on greater ease of doing business and sound property rights regimes, with special emphasis on small and medium enterprises that typically deliver most employment. An inclusive and deeper financial sector, which effectively mobilizes savings, channels them into productive investment, and fosters entrepreneurship, innovation and productivity is another priority.

**Unleash the potential and power of women.** The region's record on gender equality is still poor, despite advances in some countries. Among world regions, the highest pay gaps are in South Asia, where women earned a full third less than men from 2008 to 2014.<sup>2</sup> This is a loss in terms of meeting internationally agreed human rights standards. It is also a serious impediment to making the most of demographic transition and advancing human development. Gender equality should be understood as an immediate policy priority of central importance not just for women, but for societies and economies as a whole, since women are key to increasing labour force participation and employment rates as well as productivity.

Countries need to review the variety of barriers to women, even in highly developed countries. These may include laws that require women to retire at earlier ages than men, despite longer lifespans.<sup>3</sup> They might involve social norms and practices that tolerate gender-based violence, even if it is against the law.

Most countries in the region still have far to go in integrating women fully into political and economic decision-making. The continuing gap reduces the likelihood that policies and plans will fully support women to realize their rights, cultivate capabilities and make powerful contributions to development. All countries need to work to achieve the target in the Sustainable

Development Goals on ensuring women's full participation and equal opportunities for leadership in all levels of economic, political and public decision-making.<sup>4</sup>

**Deepen regional integration.** Considerable diversity in demographic patterns across Asia-Pacific countries is a rationale for improved regional integration. Current forms of cooperation focus mainly on trade among countries. But taking demographic considerations on board recognizes that many relevant issues cross national borders. Demographic differences among sub-regions could be harnessed to enhance financial and labour integration, and increase prospects for all countries in the region to capture demographic dividends.

One priority issue might be migration, since countries at different stages of transition have different workforce profiles. Ageing societies may struggle to find workers, while those in the earliest stages of transition may face a surplus. Cooperation might prove beneficial in easing imbalances and developing organized strategies for migration that are beneficial to migrants as well as sending and receiving countries. Freer movement for work would include more flexible visa regimes and should entail strong protections for migrants' safety and rights.

Another priority might be financial integration. East Asian countries, where high savings have been made possible in part by favourable demographic in the last few decades, are looking for opportunities to invest. South Asian countries, with a large share of working-age people, might need to attract increased capital inflows because of their relatively large labour pools and potential for productivity growth. Cross-border cooperation will be crucial as well in filling deficits in infrastructure. Among cities, it could help define and coordinate comparative advantages in order to reduce unsustainable competition for resources and foreign direct investment, among other concerns.

Since all countries will pass through demographic transition, there may also be scope to cooperate in learning from each other, across countries at the same as well as different stages. As transition proceeds quickly, while policy and institutional structures to manage it typically evolve more slowly, countries in the region need

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Demographic differences among subregions could be harnessed to enhance financial and labour integration

to share experiences, including to overcome obstacles and capitalize on opportunities.

**Collect more and better data.** While the importance of demographic transition and potential dividends is increasingly endorsed, many Asia-Pacific countries still do not have adequate data to gauge and manage the process. The collection of high-quality data needs to be geared towards monitoring the demographic profile overall, as well as the impacts of public policy measures aimed at youth, workers, older people and migrants, and related issues such as urbanization. This would be consistent with—and might build on—the data revolution called for as part of the Sustainable Development Goals. Regional and national Human Development Reports and reports on progress towards the goals could become important tools for additional data gathering and analysis.

Better measurement and more systematic analysis could define the significant contributions of unpaid work to human well-being as well as to the potential size of the demographic dividend. Governments have already agreed in Agenda 2030 to recognize and value unpaid care and domestic work, including through collecting stronger data on the proportion of time spent on unpaid domestic and care work by sex, age and location.

migrate, the process is a safe one.

**Prioritize job creation in national development strategies.** Decent and productive work is fundamental to human development, as emphasized in Agenda 2030, which calls for full and productive employment and decent work for all. Employment growth has fallen behind economic growth in Asia-Pacific, however, underscoring the urgency of reinvigorating job growth. To accommodate changes in age- and sex-specific population and labour force participation rates and achieve unemployment rates at or below 4 percent for adults and at or below 8 percent for youth, approximately 300 million new jobs will be needed across Asia-Pacific from 2010 to 2030.<sup>5</sup> In South Asia, where poor quality employment is already pervasive, the challenges will be severe as the number of jobs that will need to be created from 2010 to 2030 is much higher at 238 million than the number of jobs created at 198 million from 1990 to 2010.<sup>6</sup>

To create more—and decent—employment, governments will need to focus on encouraging private sector development as the backbone of economies. This could entail supporting new enterprises, simplifying business regulations, increasing trade and market access, and probably revisiting tax codes. Targeted growth is needed in sectors yielding high numbers of jobs as well as those that improve productivity and allow better educated people to find jobs matching their skills. The latter will be particularly important in East Asia, South-east Asia and the Pacific, where job creation needs will likely be lower than they have been – at 62 million from 2010 to 2030 compared to 221 million from 1990 to 2010.<sup>7</sup> These countries now have opportunities to create high skills jobs based on the considerable investments they have made in educating and training in the previous decades.

Stimulating pro-employment growth may call for strengthening and implementing national job creation plans. The mandate for these should not lie only with the Ministry of Labour, but with multiple ministries and departments, including finance, labour, commerce, industrial development, transportation, manufacturing, agriculture, trade, youth and women. To promote high-tech industries, for instance, the labour ministry will need to work together

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Better measurement  
and analysis could  
capture substantial  
contributions from the  
unpaid work of women  
and older people

## MAKING THE MOST OF DEMOGRAPHIC OPPORTUNITIES

For most Asia-Pacific countries, the rapid growth of working-age populations and corresponding decline in dependent populations presents incredible possibilities. But countries on the verge of demographic transition must manage well to make the most of a potential demographic windfall. They will need to develop plans to build a stronger and healthier economy, and improve job prospects and overall well-being for a growing number of workers. Measures may be needed to mitigate adverse effects from underemployment and informal work, which have grown in the region, and ensure that when people choose to

with ministries overseeing youth, education, technology and foreign affairs. Success depends largely on a shared vision, adequate resources and seamless coordination. As the 2015 global Human Development Report recommends, this process must aim for equal access to new technologies, and be geared towards equipping people to seize opportunities in the changing world of work, including through the updating of skills through their lives.

**Protect workers' rights and safety.** The Sustainable Development Goals call for protecting labour rights, and promoting safe and secure working environments for all workers. Protections should cover all sectors of employment, in rural or urban areas, and apply to all migrants. Priorities include progressive formalization of informal sector employment, expanding social protection, establishing and enforcing a minimum wage to eliminate working poverty, adopting legal guarantees of workers' rights backed by processes to uphold them, eliminating child labour and any other practices that violate human rights, and setting and implementing basic workplace health and safety standards.

**Stimulate small and medium enterprises.** These are responsible for two-thirds of total employment in Asia-Pacific, and are vital for inclusive growth. Helping them expand in size and number will be essential to responding to a growing workforce. Much depends on boosting their relatively small shares in trade and limited access to finance, among other serious obstacles to growth. Other assistance could encompass expanding market access, enhanced use of appropriate technology, and easing disincentives to enter the formal sector, such as excessive business regulations and minimum capital requirements. One-stop service centres could provide assistance with managing formalization, but also advisory, training and other services on issues related to establishing and sustaining a smaller enterprise.

Countries could also support these businesses through enhancing the skills of people involved, establishing development banks or designing loan guarantee schemes, offering fiscal incentives, providing market support and regulation, and supporting research and development, among other measures.

**Promote structural transformation and greater productivity.** Economies with large working-age populations need to shift from mainly low-productivity agricultural activities to high-productivity activities in other sectors in order to improve competitiveness and stimulate productivity. Malaysia provides an example, as it successfully transformed from a traditional plantation-based economy to a sophisticated manufacturing and services economy within a generation.

To help the process along, policy makers need to promote entry into regional and global value chains, and broader regional economic integration. A conducive environment depends on incentives for research and innovation, expanded skills training, the diffusion of new technology and investment in infrastructure, among other avenues.

Policies, regulations, institutions and progressive workplace practices can be geared towards equipping enterprises to improve productivity and remain competitive. Workplace practices include good working conditions, continual learning, sound labour and management relations, and respect for workers' rights. Linking wages more robustly to productivity will ensure that both labourers and entrepreneurs share the benefits of productivity growth.

**Mobilize savings and channel them into productive uses.** The extent to which a country realizes its demographic dividend depends in part on how well it mobilizes savings and channels them into improved productivity and human well-being, such as can be gained through investing in essential infrastructure for education, health, roads, ports, electrical grids, water systems, and so on.

One key element is ensuring that people have mechanisms to accumulate wealth for old age, including through safe and readily accessible instruments for saving. A large portion of Asia-Pacific's savings is currently invested outside the region, given the shortage within the region of long-term financing instruments. Expanding these has tremendous potential. More developed bond markets, for instance, could build on lessons from successes in Malaysia, Republic of Korea and Singapore. In low-income countries, banks are still the most important source of financing; many remain state-owned. Reforms could improve the allo-

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An employment-oriented growth strategy is essential for achieving a demographic dividend

cation of loans to the most productive economic sectors, and extend more loans to small and medium enterprises, since larger corporations in many cases can access international financial markets.

Another priority is to lay the foundation for pension systems in anticipation of inevitable ageing. Investing in these systems while the workforce is still large means that as workers age and withdraw from the labour force, there will be sufficient resources for them to enjoy a decent standard of life. While there are different options to expand pension coverage, contributory pension systems may be more sustainable over the longer term as they encourage the current population to save, easing pressures on public budgets.

budget allocations to education. One priority for additional resources could be to improve school facilities and faculty, particularly in rural areas and for marginalized communities, as a pathway to equity in opportunities later in life. A comprehensive review of curricula and an assessment of pedagogical approaches may be important, as highlighted in Sri Lanka's 2014 National Human Development Report on Youth and Development, including to ensure that these meet the needs and expectations of students, and prepare a strong foundation for them to flourish as adults. The success of East Asian countries in providing quality education may offer lessons, as students there regularly top global rankings under the Programme for International Student Assessment (PISA) conducted by the Organisation for Economic Co-operation and Development (OECD).

## UNLOCKING THE POTENTIAL OF THE NEXT GENERATION

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### Investing in education and health helps people to realize their full potential

Asia-Pacific's children and young people will be the driving force behind demographic transition and human development in the next few decades. Deliberate measures and scaled-up investments need to be in place to enhance their education, health and passage from school to work, as affirmed in Agenda 2030, where the international community committed to providing children and youth with a nurturing environment for the full realization of their rights and capabilities.<sup>8</sup> Public services for youth need to be high in quality and accessible to all, and young people need to be more systematically included in the decisions that affect their lives.

**Raise public investment in education to international standards.** Asia-Pacific as a region has made commendable progress in primary education and attaining gender parity in education. Greater effort is needed to expand the availability of secondary and tertiary education, however, as these levels produce the skills many countries need to cultivate an increasingly productive workforce and advance to higher levels of human development.

The region needs to invest in the quality of education, at all levels, with a starting point being to reach international standards for

**Provide universal health services and nutrition.** Though Asia-Pacific as a whole has fared well on vital health issues such as improving access to immunization, reducing infant mortality, curbing stunting among children and improving maternal health, huge health and malnutrition challenges still persist. The Sustainable Development Goals now call for universal health care for all nations at all stages of development. Though priorities for action may differ among countries, this implies that health services need to be available to everyone, as well as affordable, efficient and of good quality. They should be comprehensive, covering not only physical and mental well-being, but also social, economic and cultural factors that influence health. Current underfunding of health services underscores the need for a boost in resources.

Carrying the world's highest burden of child malnutrition, South Asia should make greater investments in reducing it. Most countries in Asia-Pacific as a whole, particularly those with a growing youth bulge, need to pay greater attention to adolescent health. A youth-friendly health policy is central if young people are to learn healthy behaviours, curtail substance abuse and tobacco use, become more physically active, realize their sexual and reproductive health rights, and avoid HIV and obesity.

**Strengthen the transition from school to work.**

This is an urgent priority in a region where an astonishing one-third of youth are neither in school nor the labour market. Part of the reason is that youth with college degrees are unable to find commensurate jobs. To rectify this situation, countries need to ensure that educational systems prepare youth with skills demanded by the labour market. They should also more systematically assess the demand and supply of graduates against anticipated labour market needs.

A shift in emphasis towards education offering relevant skills and alert to labour market demands will produce a higher quality and more employable workforce. Opportunities for internships or apprenticeships for young people could be created and incentives provided to employers to hire more of them. Vocational training will help them explore new avenues for work. Germany's dual vocational training system, which attracts two-thirds of high school graduates, provides an excellent example of how a well-designed work-study programme can help train students in disciplines with clear market demand, and thereby minimize mismatches between available jobs and skills.

With rapid growth in new industries and technology, and increased innovation across Asia-Pacific, there are many new opportunities for talented young people. But governments will also have to engage the private sector and civil society in more meaningful ways to ensure that

these translate into decent employment.

**Support youth in employment and entrepreneurship.** Centres to provide youth with career counselling, information and legal advice are still nascent in the region. Further developing these services could assist in managing challenges related to job searches, informal jobs and migration both to urban areas and abroad. Among other options, they can provide job matching assistance, offer training and mentoring aligned with current labour market needs, arrange for internships or apprenticeships, and even impose sanctions to encourage people to take jobs.

They can also help proactively counter gender and other forms of discrimination, and can conduct targeted outreach to youth who are marginalized, recognizing as well that they may require tailored support. Information and advice on migration specifically targeted to youth could do more to protect them from exploitative recruiting agencies. In general, support services should be integrated within well-designed, appropriately funded labour market policies. These policies should make youth employment a major goal, and aim at overcoming information gaps, improving youth employability and stimulating demand for young workers.

Nurturing youth leadership and entrepreneurial talents can stimulate innovation and creativity, and open new doors for them to transition into a successful adult life. Youth

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Young people can offer new insights and pioneering solutions

## BOX 6.1: Crowdfunding—a new tool to stimulate jobs and innovation among youth

In recent years, crowdfunding has enabled young people to raise capital for businesses from different sources online, rather than relying on traditional options such as families and banks. In Singapore, when sisters Hani and Aisah Dalduri decided to scale up their textile printing business, Fictive Fingers, they launched a crowdfunding campaign by writing their story, sharing photos of their products and encouraging supporters to contribute in return for a range of rewards. The sisters readily exceeded their funding target of \$3,600. When asked why they took the crowdfunding route, they said the campaign wasn't all about money. They

were also drawn by the opportunity to reach out to a community.

Asia is currently witnessing exponential growth in crowdfunding, to the tune of \$3.4 billion in 2014. Given that countries in the region have many technically savvy young people, crowdfunding is an obvious tool for them to realize their full potential. Credible crowdfunding systems, however, still require support, including forward-thinking regulations, effective technology and the kinds of cultural shifts encouraging more people to invest in them.

start-up ventures could benefit from improved access to finance, including through new tools such as crowdfunding, as well as technical support related to business management and legal advice. Countries such as the Republic of Korea provide financial and other forms of support to youth with innovative business ideas. Helping youth to establish small and medium enterprises not only brings new products and ideas to markets, but also increases employment.

**Engage youth in community development and public policy.** Young people can offer new insights and pioneering solutions in policy dialogues, or as representatives in national or local decision-making bodies. Many today are more informed than ever before, and keen to tap into new technologies to devise innovative solutions, such as through social media and crowdsourcing platforms. They participated pro-actively in deliberations around Agenda 2030, and are now poised to support its implementation, a process that countries should seek to encourage. National youth councils are one option; reserving seats for youth in parliaments and local legislatures can be another. Bhutan recently launched its first Children's Parliament and Constitution as a platform for youth participation. Civic education is another priority, as it instils common values, and a sense of social and civic rights and obligations—one possibility is to integrate it as a routine element of national education curricula.

Volunteerism and civic engagement of youth can bring tremendous value to local communities. The Philippines' well-known 'Check My School' programme mobilizes youth volunteers to monitor educational resources in local schools to ensure accountability and responsiveness to community needs. The programme has become so successful partly because of a trusted partnership between youth and local governments, and a strong emphasis on transparency and publicly available information.

The World Programme of Action on Youth to the Year 2000 and Beyond is an overarching global framework for addressing youth issues, covering 15 thematic areas in a practical, action-oriented way. Drawing on this, Asia-Pacific countries have developed and refined their own national youth policies, which are now in place in most of countries in the region. More now needs to be done, however, to speed up implementation.

**TABLE 6.1:**  
**National laws, policies and actions plans on ageing in Asia-Pacific**

<b>Australia</b>	Australian Local Government Population Ageing Action Plan 2004-2009, Home and Community Care Act 2007
<b>Bangladesh</b>	National Policy on Ageing 2007
<b>Cambodia</b>	Policy for the Elderly 2003
<b>India</b>	Senior Citizens Act 2007, National Policy on Senior Citizens 2011 (formerly National Policy on Older Persons 1999)
<b>Indonesia</b>	National Plan of Action for Older Persons 2008
<b>Lao People's Democratic Republic</b>	National Policy on the Elderly 2005
<b>Nepal</b>	Senior Citizens Regulation 2009, National Action Plan for Senior Citizens 2005
<b>New Zealand</b>	Retirement Villages Act 2003
<b>Philippines</b>	Philippines Plan of Action for Older Persons 2005, Expanded Senior Citizens Act 2010
<b>Thailand</b>	Older Persons Act 2003, 2nd National Plan for Older Persons 2009
<b>Viet Nam</b>	Law on Elderly 2010 and Action Plans 2005-2010

Source: UNFPA and HelpAge International 2012a.

# SUSTAINING HUMAN DEVELOPMENT ACROSS LONGER LIFESPANS

Rapid ageing poses challenges and opportunities. All countries should recognize that an ageing population is inevitable and plan accordingly, but the need is particularly acute among those already at the forefront of change. People who are 60 years and above account for more than 12 percent of the population in 12 Asia-Pacific countries.<sup>9</sup> Ageing in the region is proceeding at rates much faster than it did in Western nations, including in countries that will be grey long before they are rich.

For many older people, vulnerabilities associated with limited income are exacerbated by weak state-assistance systems and the disintegration of intergenerational families. Support needs to be geared up to protect their rights and well-being, in many cases requiring significant political commitment. Countries such as Japan and Thailand, where interministerial

councils and commissions on ageing oversee policy implementation, are moving in the right direction. New Zealand has appointed a minister for senior citizens.

**Establish a national ageing policy.** Both the Madrid International Plan of Action on Ageing and Agenda 2030 stress grounding strategies to support older people in their active empowerment and engagement, and upholding core principles such as equity, sufficiency and sustainability. Many Asia-Pacific countries have launched policies and/or action plans based on the rights of older persons to participate in development and acquire human development capabilities and opportunities (Table 6.1). Nearly 40 percent of countries have specific legislation on older persons.

Some countries have adopted monitoring systems to assess the impacts of policies and laws on the elderly, as in China for the Law on the Protection of the Rights and Interests of the Aged. Malaysia conducts surveys and research on ageing, including the Review of the National Policy and Plan of Action for Older Persons, which focuses on reintegration and increased participation of older persons in society.

Given still considerable gap between policy and practice, however, a majority of countries need to prioritize implementation. Plans need to be backed by necessary resources and structured around clear goals. Results could build on better data, evidence and knowledge, such as can be collected through regular surveys on ageing. This will help decision makers attune policies to realities on the ground.

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**Stronger commitments are needed to manage non-communicable diseases**

## BOX 6.2: European countries prohibit age-related discrimination and support active ageing

With a large population of older people, the European Union has developed a series of programmes and policies to safeguard their interests and rights. The EU Framework Directive legally prohibits discrimination in employment based on age, among other personal attributes.

Excluding some specific occupations, a majority of European Union member states have abolished a compulsory retirement age, which helps to counter the labour loss from a shrinking population of working-age people. Other policies support active ageing, encouraging people to participate economically, provide care to family members, maintain healthy and independent lives, and find sustainable solutions related to health care, pensions and long-term care. The European Disability Strategy 2010-20 fosters equal access to goods and public services, including health services, by eradicating discrimination based on disability.

**Enact legislation to protect the elderly from discrimination.** Ageing is a relatively new phenomenon in Asia-Pacific, and legal frameworks have not necessarily kept up with it. Some priority issues might include laws banning age-based discrimination, protecting the elderly against abuse in their homes or institutions, and guaranteeing essential service delivery and access to social security entitlements. Raising the age of retirement should be accompanied by laws to ensure that elderly people who need or choose to work will not face discrimination in employment. In crafting new statutes, countries can learn from experiences in regions at a more

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**Proper design  
and appropriate  
institutions can ensure  
pension systems are  
sustainable**

advanced stage of ageing (Box 6.1).

**Rebalance health systems.** Population ageing will undoubtedly place an increasing burden on national health care services and budgets. At least part of this can be mitigated by proactive strategies to foster active and healthy ageing, such as through awareness campaigns to cultivate healthy lifestyles and reduce the escalating costs of chronic non-communicable diseases. This approach requires an assessment of the health system as a whole and the needs of different population groups, working towards the goal of universality, and aligned with principles of equity, fairness and efficiency.

Having already passed through the early stages of demographic transition, some ageing countries still retain a heavy focus on primary health care, particularly child and maternal health. At a more advanced stage of transition, rebalancing may be required to better meet the needs of older people. Among other measures, this may call for stronger financial and programmatic commitments to support prevention, diagnosis, management and proper care of non-communicable diseases; training of health workers to explicitly address age-related care; and investment in care for disabilities and mental health services geared to the elderly, particularly those who are poor and/or live rural areas.

**Raise the retirement age, and ensure it is the same for women and men.** In several countries, mandatory retirement ages no longer reflect the reality that people are living much longer. Raising the retirement age could have a number of positive impacts, including a boost to the supply of experienced and skilled labour, which is critical for Asia-Pacific countries to remain competitive, and contributes to higher household incomes and savings. Government savings will rise because lifetime benefits paid to retirees will be smaller.

To uphold gender equality norms, retirement ages should legally be the same for women and men. Working environments could be adapted to accommodate the physical and health conditions of elderly people, and more flexible work conditions embraced to encourage older people to remain in the workforce. Flexible and part-time employment options may be

especially attractive to women, who make up a majority of the elderly, but a minority of the elderly workforce. Asia-Pacific countries can learn from experiences in China, Indonesia, the Philippines and Viet Nam, which have introduced programmes promoting employment for elderly people.

Several countries have instituted higher retirement ages or abolished a compulsory retirement age altogether. Higher longevity and healthier lives have led Japan and the Republic of Korea to increase their retirement ages to 60. Singapore not only raised the minimum retirement age from 55 to 62, but in 2011 passed re-employment legislation through which companies must rehire healthy workers until they reach age 65. Recently, Singapore's Prime Minister announced that the re-employment age will be raised to 67 by 2017.<sup>10</sup> Australia, the United States and the European Union have all adopted flexible approaches to retirement that allow people to remain employed according to their individual circumstances.

**Adjust national pension systems for equity, adequacy and sustainability.** Pension systems are still at an early stage in the region, but will need to grow—rapidly in many cases. This will not be easy or cheap. Choices may be needed to balance priorities across generations and develop social consensus around what constitutes fair shares of limited resources. Proper design and appropriate institutional mechanisms can help contain expenditures. In general, pension systems should aim to be progressive, where pension benefits are equitably shared, and those with the capacity to contribute more do so. A fair floor of essential benefits could be established for all pensioners, while avoiding the trap of setting overly generous benefit levels that are a disincentive to work or unsustainable in the long-run.

There are numerous pension models around the world to learn from. A majority of countries operate with contributory pension schemes, where both workers and their employers contribute. In the United States, for example, approximately 80 percent of full-time workers have access to employer-sponsored retirement plans that can be continued as people move between jobs. In New Zealand, the KiwiSaver

plan automatically enrolls people in saving for retirement unless they choose to opt out. Unlike in the United States, New Zealanders cannot withdraw their savings at any time prior to their retirement, which makes the system more sustainable. Denmark maintains a well-funded pension system with investments in long-term bonds that was recently ranked as the world's best. It is robust and provides good benefits.

**Undertake national campaigns to change negative perceptions around ageing.** Ageing societies face a process of adjustment that will take place on the policy and planning levels, but also in the court of public opinion. Public awareness campaigns can be invaluable in countering discriminatory notions about older people that can marginalize them in multiple ways.

Some initiatives might aim to slow the erosion of traditions and values that treat the family as a cohesive unit where different members at different stages of life help each other. They could encourage, for example, adults to support their elderly parents, or elderly people to assist with rearing grandchildren. At least in the interim, this could help take excessive pressure off pension schemes, and increase psychological and emotional satisfaction among the elderly. Grandparents play an important role in child care in European countries. Their role in the family is believed to have a positive impact on their own health even as it allows more mothers to participate in the labour market.<sup>11</sup>

## REALIZING THE FULL PROMISE OF URBANIZATION

Though urbanization is both a cause and consequence of demographic changes, it should not be viewed as simply a demographic phenomenon. At its core, urbanization is a transformative force that alters the landscape and fortune of countries, in both positive and negative ways. Cities are hubs of modern living, better paid jobs, higher quality education and health care, and improved sanitation, hygiene and nutrition. They boost productivity and innovation, and open access to markets and technology. But they can also be sources of heightened risk for poor residents, such as through crime and low living standards. They can dramatically amplify pressures on the environment through urban sprawl and unsustainable consumption of resources.

In Asia-Pacific, urbanization is occurring more quickly than in other regions, forcing cities to adapt and manage demographic transformation in a narrower window of time. Higher human development outcomes largely depend on better services and the fair sharing of benefits from urban economic dynamism. Towards these ends, local and national policy makers need both vision and political will. Governments will need to expand capacities and resources to cater to rapidly growing demands for public services and infrastructure, extend protection measures for the urban poor and marginalized, and guide the building of cities that are resilient and sustainable.

**Enact a national urbanization strategy.** National and local governments need to become more strategic in responding to the full range of threats and options posed by rapid urbanization. For this, a national urbanization strategy is a first step. It could help to identify urban development priorities, shape national and regional spatial plans, and better coordinate actions by national and local actors, including the private sector. Working with such a strategy, governments at all levels can help make cities more equitable, efficient and environmentally friendly, through, for example, informed trade-offs on the use of scarce resources such as land. In orienting diverse policies for housing, transport and basic

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Well-defined property rights and transparent land and labour markets help harness urban potential

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## Local government capacities and relationships with central authorities need to improve

infrastructure, a good urbanization strategy will make these more adapted to the realities of cities and towns.

Urban policy priorities and choices depend on a variety of factors—including the scale and speed of urbanization, the size of cities, and the stage of demographic transition, which among other issues can determine the source of urban growth. But in general, urbanization strategies should aim for higher levels of human development, as well as greater productivity and stable growth. Necessary ingredients include well-defined property rights, a good investment climate, an attractive incentive framework for businesses, functioning land and labour markets, high investment in education and training, reliable electricity and power grids, good transportation systems, interconnectedness between cities and outstanding telecommunication networks.

Links between rural and urban development are still often overlooked. The two are in fact closely intertwined; each can either limit or unlock possibilities in the other, such as by accelerating or slowing the flow of migrants. China's 2013 *National Human Development Report on Sustainable and Liveable Cities* highlighted how accelerated urban growth is fuelling a rural and urban divide. It urged a closer examination of rural-urban links to gain insights into solutions to address this phenomenon. These might include, for instance, roads that improve the flow of goods and people in both directions, or banking services that permit the ready transfer of money earned in cities to dependents in outlying villages.

Asia-Pacific cities differ vastly from each other. In terms of development trajectories, for example, Hong Kong, China (SAR); Mumbai and Singapore are centres of financial services, while high-tech drives Bangalore, Chennai and Hyderabad. Many cities in China and the Republic of Korea are powerhouses of export-oriented manufacturing. City-specific strategies are crucial for them, in addition to a national urban strategy.

In recent years, small and medium-sized cities have grown rapidly in many Asia-Pacific countries. They act as economic growth centres and are important as bridges between rural and large urban areas, but their potential has not yet been fully exploited. Many enjoy

advantages such as low rental costs and limited traffic congestion. An increased focus on them, through national and city-specific urbanization strategies, could generate additional economic growth and greater efficiency. With adequate attention, dynamic small and medium-sized cities could eventually play an important role in reducing income inequality and promoting balanced territorial development.

**Strengthen municipal government capacities.** The capacities of local governments and their relationships with central authorities do not consistently reflect the pace of urbanization or its many demands. The process of defining appropriate capacities and links can be a complex one, more so because many countries lack the luxury of enacting new systems over a longer period of time.

A review of current relationships is a starting point in this direction. It should aim for moving towards a proactive, bottom-up approach that goes beyond just designing a new territorial administrative structure. National, regional and city governments need to have clearly defined roles grounded in existing capacities, but also connected to a vision of developing future capacities, particularly among local governments, as they are on the frontlines of managing liveable, productive, inclusive and sustainable cities.

Over time, success will depend strongly on a national legal foundation, capable institutions and adequate financial instruments to manage decentralization and coordinate among different levels of government. Effective urban service delivery rests largely on the devolution of appropriate responsibilities backed by the resources to pay for them. Institutions of local governance need requisite technical and managerial skills, the ability to engage with the public, and strong capacities to design, implement, monitor and evaluate local public policies to transform urban areas into centres of productivity.

**Address chronic budget imbalances among local government.** Each city, regardless of size, needs a well-defined administrative area over which it has full autonomy, and a clear formula for intergovernmental transfers. As capacity for local administration improves, cities can often boost local resource mobilization, such as through

### **BOX 6.3:** **Developing Delhi's metro rail system**

The Delhi metro rail system provides an interesting example of how mass transportation systems are being developed and managed in major urban centres of developing Asia. Construction for the railway system began in the mid-1990s and over two decades encountered various technical challenges, such as the need to tunnel under old, fragile buildings and avoid disruptions to the mobility of residents, as well as political hurdles involved in resettling residents and reimbursing landowners. Today the 216-kilometre rail system consists of modern, air-conditioned, eco-friendly trains. With 160 stations, the system connects the busiest parts of the city, including the international airport. Plans call for extending it to suburban areas through express lines.

A successful public-private partnership was key to securing funding for the project. The Government

of India formed the Delhi Metro Rail Corporation (DMRC) to oversee implementation and financing. Most funding came in the form of low-interest loans from the Japan Bank for International Cooperation and the Japan International Cooperation Agency, with matching grants from the governments of Delhi and India. Up to 15 percent of funding was derived from a 'value capture' scheme, where the Corporation drew some proceeds from commercial property development around metro stations.

The DMRC has been recognized for pioneering the world's first metro system to purchase carbon credits. These help to reduce greenhouse gas emissions by 0.63 million tons every year, on top of reductions from vehicles taken off the streets due to the new public transport system. All stations have energy efficient buildings; several are powered with solar energy.

Source: Delhi Metro Rail Corporation Limited 2016, Siemens Report 2014.

better tax assessment and collection practices. They can ensure more equitable distribution of public resources, and plan more systematically for infrastructure investment, operations and maintenance. Those at more advanced stages can explore alternative instruments of finance to increase fiscal self-reliance, such as user fees, real estate taxes, municipal bonds, land-based financing instruments, development impact fees and public-private partnerships (Box 6.2).

**Promote inclusiveness.** Urban exclusion, social or otherwise, is a critical impediment to human development in cities. Conscious and comprehensive analysis of patterns of exclusion, which can be gained in part through engaging directly with excluded groups, needs to inform urban planning, development and investment strategies. When excluded groups play key roles in making decisions on these, such as through community-based budgeting and similar exercises, the actions that result may be better suited to meeting their needs, doing more to reduce exclusion and enhance human well-being.

Every effort should be made to integrate all marginalized people, who may include rural-urban migrants, slum dwellers, youth, old-

er people, women and girls, and people with disabilities, among others. All urban residents should be able to access essential services and decent work, which initially may require targeted spending, for example, on infrastructure that closes longstanding gaps in transport, and access to water and electricity. Street lights can help reduce instances of gender-based violence and harassment. Repairing potholes and installing ramps on sidewalks ease access for the disabled and elderly. The fact that gender pay gaps are often wider in urban areas<sup>12</sup> suggests scope for awareness campaigns, engagement with employers and enforcement of anti-discrimination statutes, and may also indicate a need for the provision of services such as childcare that reduce the burdens of unpaid care work.

**Build more environmentally sustainable cities.** The environmental and other costs of poorly managed urbanization can be excessive and difficult to reverse, making it far more cost-effective to plan now for sustainable urban development. Forward-looking environmental, social and economic policies need to be central to urban development agendas. These can be designed through citizen participation, and aim for inte-

## SUSTAINING MOMENTUM

grated responses to human development goals and market demands.

One measure is to foster urban agglomeration, and promote green and compact cities, as both China and Japan are doing. These avoid the urban sprawl that can make public services costlier and more difficult to provide, and can dramatically increase traffic congestion and greenhouse gas emissions. Restrictions on the expansion of urban boundaries are one way to encourage denser forms of urban development. Sustaining compact cities depends in part on instituting efficient, low-emissions public transportation systems.

All cities should be equipped to minimize damage and quickly recover from natural disasters. Impact assessments can help identify vulnerable locations, populations and sectors, and inform urban response plans. Climate change considerations and disaster risk reduction should be factored in, such as through stricter regulations for development projects in high-risk areas and improved standard building codes.

Asia-Pacific's human development achievements have been nothing less than extraordinary. The pace of progress can and should be maintained, but the means may differ, particularly given challenges such as slowing economic growth and threats from climate change. Success will depend in large part on the adept use of all available avenues to sustain and accelerate human development; among the most powerful of these may be demographic transition.

Every country has valid reasons for exploiting its narrow window of demographic opportunity. It is time for a broad cross-section of policy makers and the public at large to understand the enormous potential at hand. Every possible effort should be made to steer the process that is now unfolding, so that it provides all people, across the region, with every chance to flourish.

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Better infrastructure, education and research, and public administration make cities more competitive

**Make cities more competitive.** Many factors that affect a country's competitiveness, such as infrastructure, educational and research institutions, and the quality of public administration, come under the purview of cities. Some Asia-Pacific cities are successful in attracting talent and investment, and ensuring prosperity and good public services for their citizens. Singapore; Hong Kong, China (SAR); Sydney and Tokyo are currently among the world's most competitive cities, and are likely to retain their advantages in the near term.

By comparison, many cities in developing Asia-Pacific countries struggle to cope with challenges such as the large-scale influx of migrants, or the inability to provide essential services, decent jobs or housing. They suffer from substantial infrastructure gaps, such as unreliable power systems, poor quality roads, inefficient ports, inadequate schools and so on. There has been some progress in narrowing the infrastructure deficit in recent decades, but much more needs to be done to remove bottlenecks and upgrade systems if cities are to become more competitive and realize their full potential as hubs of human and economic dynamism.





# End Notes

## CHAPTER 1

1. UNFPA 2014b.
2. The term 'demographic dividend' usually refers to the potential economic growth resulting from a change in population age structure. In this report, the term refers not only to potential economic growth, but also to potential human development progress.
3. UNDP 2015a.
4. Annex Table 2.
5. Human Development Index values have not been calculated for nine Asia-Pacific countries and territories, namely the Cook Islands; the Democratic People's Republic of Korea; Macao, China (SAR); Marshal Islands; Nauru; Niue; Taiwan Province of China; Tokelau and Tuvalu.
6. Annex Table 1.
7. Ibid.
8. Ibid.
9. Ibid.
10. Ibid.
11. Annex Table 3.
12. Ibid.
13. Annex Table 4.
14. UNDP 2014.
15. Annex Table 5.
16. The demographic data in this report are per the World Population Prospects projections, 2015 revisions (UN DESA 2015a). Asia-Pacific in the report refers only to East Asia, South-east Asia, South Asia and Oceania. It does not include Central Asia, North Asia and West Asia. Please see the Readers Guide for a complete list of countries, and the Annex Tables for country data.
17. World Bank 2015a.
18. The population projections used in this report are based on the medium-variant of United Nations population projections.
19. Annex Table 7.
20. The window of demographic opportunity is the time when the proportion of the population aged 0 to 14 is below 30 percent, and the proportion aged 65-plus is below 15 percent (United Nations 2004).
21. In 2100, four out of five people in the region will be 15 years of age or older and 28 percent will be 60 years of age or older.
22. Annex Table 9.
23. Ibid.
24. UN DESA 2015a.
25. Annex Table 9.
26. The common indicator of fertility is the total fertility rate, which expresses the number of births that can be expected to occur for a typical woman in a given society during her childbearing years. The total fertility rate and crude birth rate are especially influential in determining the number of children in a country.
27. IMF 2015 and World Bank 2015 use a similar typology for grouping countries on the basis of demographic variables.
28. Annex Table 8.
29. Government of India 2012; Hunter 2012.
30. Andhra Pradesh, Tamil Nadu, Kerala, Karnataka, Goa, Punjab, Himachal Pradesh, Jammu and Kashmir, Maharashtra, West Bengal, Sikkim, Tripura and the union territories.
31. Annex Table 8.
32. Bloom and Williamson 1998.
33. UN DESA 2012.
34. Ibid.
35. Afghanistan, Bhutan, Democratic People's Republic of Korea, Fiji, Kiribati, Lao People's Democratic Republic, Micronesia, Myanmar, Nepal, India, Mongolia, Pakistan, Papua New Guinea, Philippines, Solomon Islands and Timor-Leste.
36. Annex Table 8.
37. Feeney and Mason 1997; Bloom and Williamson 1998.
38. UN DESA 2015a.
39. Migration stock data refer to the number of people living in a country other than the one in which they were born at a given point in time.
40. Sijapati 2015.
41. IOM 2013.
42. Castles et al. 2012.
43. IOM 2013.
44. Castles et al. 2012.
45. OECD 2012a.
46. The demographic dividend occurs from 'accounting' and 'behavioural' effects. One accounting effect is the swelling of the working-age population after a baby boom. Another is the fact that the 'working age' coincides with the prime years for savings. Behavioural effects include the rise in women's workforce activity as fertility declines; faster urbanization as people move from rural to urban areas for improved education and employment opportunities; the boost to savings and productivity as people work harder and save more due to the possibility of a longer retired life; and the use of human and physical capital, infrastructure and technological innovation.
47. Bloom and Williamson 1998; Bloom et al. 2007; Lee et al. 2000; Lee and Mason 2006.
48. Becker and Barro 1988; Lee and Mason 2010; Prettner and Prskawetz 2010.
49. See Coale and Hoover 1958. The study stressed three demographic factors affecting economic development. First, there is the age dependency effect as rapid population growth creates a worsening dependency ratio that leads to a dip in the savings rate for people in their early 30s due to the high consumption needs of people with young families. Second, there is a resource diversion effect as high population growth leads to a large amount of money spent by the government on social sectors rather than on productive growth-oriented sectors. Third, a 'capital-shallowing' effect occurs as rapid population growth leads to a fall in the ratio of capital to labour. See also Bloom and Freeman 1988; Bloom et al. 2003.
50. Bloom and Williamson 1998.
51. Wang 2011.
52. IMF 2011.
53. Drummond et al. 2014.
54. UNDP 2015a.
55. For a detailed description of the model, see Mason 2005.
56. Economic growth is measured here by GDP per equivalent consumer (GDP/N) rather than the more traditional GDP per person. Growth of GDP/N is a better measure of gains in the standard of living because high-consuming age groups grew more rapidly than low-consuming age groups between 1970 and 2010. Accounting for age structure changes leads to a downward revision of economic growth of between 0.1 and 0.2 percentage points, except in Africa, where the downward revision is only 0.04 percentage points.
57. The effective number of workers uses age variation in labour force participation, unemployment, hours worked and productivity to measure the size of the work force. The effective number

of consumers uses age variation in consumption to control for the effects of age structure on standards of living.

## CHAPTER 2

1. UN DESA 2015a.
2. ADB 2005.
3. Philippines Statistics Authority, Republic of the Philippines 2015.
4. ILO and ADB 2011.
5. McKinsey & Company 2011.
6. Noland et al. 2013.
7. Bloom and Williamson 1998.
8. World Bank 2013a.
9. ADB 2014a.
10. Gross enrolment ratio = (persons in school x100)/(persons of school age).
11. Fogel 2004.
12. For example, Bloom et al. 2000.
13. Leung et al. (2003) argued that it is impossible to disprove the role of luck in economic growth. They claimed that Asia-Pacific countries have experienced successes and failures generated by high economic volatility, and that "luck is endogenous through learning-by investing." As result, "good luck is a function of good policy. Luck favours those who strive."
14. Otsubo 2007.
15. Kensuke 2011.
16. UNDP 2014.
17. Otsubo 2007.
18. Ibid.
19. Corbet 2012.
20. World Bank 2015a.
21. ADB 2014c.
22. Norbu 2014.
23. The Economist 2014a.
24. ADB 2014c.
25. Ibid.
26. OECD 2012.
27. ILO and ADB 2011.
28. Kabeer 2005.
29. World Bank 2014e.
30. World Bank 2014b.
31. Ibid.
32. Mirza and Bacani 2013.
33. ILO 2013; WIEGO 2014.
34. Estimates of global domestic workers vary from 100 million to 200 million as reported by the ILO (UN Women 2015a).
35. ILO 2011b.
36. ILO 2012b.
37. ESRC-DFID 2014.
38. International Committee of the Red Cross 2015.
39. ILO 2015b.
40. ILO 2013.
41. Monthly Review 2014.
42. ILO 2015c.

43. WageIndicator 2011.
44. China Briefing 2014.
45. The Asia Foundation 2013.
46. World Bank 2014a; Dev 2015.
47. ILO 2015a.
48. ILO 2008.
49. UNESCO-UNEVOC 2014.
50. National Skills Development Foundation 2013.
51. ADB 2014b.
52. Demirguc-Kunt and Klapper 2012.
53. The Global Findex Survey 2014.
54. Karlan et al. 2014.
55. Burgess and Pande 2005.
56. Bill and Melinda Gates Foundation 2015.
57. Norbu 2014.
58. ADB 2015a.
59. Ernst and Young 2014.
60. ADB 2015b.

Report of Pratham (2012), which is one of the largest NGOs in India working to improve the quality of education, indicates that more than half of all children in Standard V were unable to read a Standard II level text in 2012. Similarly, 46 percent of children enrolled in Standard V were not able to solve simple-two digit subtraction problems.

19. Pratham 2013.
20. Muralidharan 2013.
21. UNESCO 2012.
22. UNESCO 2015b.
23. Tertiary students are those who enrolled for a university degree, vocational training or advanced research degree of doctoral standard.
24. See, for example, Carnoy et al. 2012; World Bank 2012a.
25. UNESCO 2014a.
26. ADB 2012b.
27. Altback et al. 2009.
28. Morley 2005.
29. UNDP 2013.
30. ADB 2011b.
31. UNESCO 2014b.
32. UNESCO 2015b.
33. UNICEF 2015a.
34. UNDP 2015a.
35. ILO 2015d.
36. ILO 2015e.
37. ILO 2015d.
38. UNICEF 2007.
39. WAVE Trust 2013.
40. OECD and WHO 2014.
41. UNICEF 2014.
42. Ibid.
43. Ibid.
44. Ibid.
45. Ibid.
46. Save the Children 2012.
47. Ibid.
48. UNICEF 2014.
49. UNICEF 2016.
50. Underweight (low weight-for-age) is related to both low height and low weight of a child. Hence countries with a higher prevalence of stunting and wasting are likely to have a higher proportion of underweight children.
51. UNICEF 2014.
52. WHO 2016a.
53. UNICEF 2014.
54. WHO 2014c; UNICEF 2014.
55. WHO 2014c.
56. Ibid.
57. Chen et al. 2011, WHO 2012
58. UNICEF 2011.
59. UNODC 2015.
60. Kothari et al. 2012.
61. UNFPA 2012.
62. WHO 2014a.

63. WHO 2014b.  
 64. UNFPA 2012.  
 65. UNICEF 2015b.  
 66. Ibid.  
 67. Guarcello et al. 2007.  
 68. UNDP 2014.  
 69. ILO 2015d.  
 70. Ibid.  
 71. World Bank 2015a.  
 72. O'Higgins 2001.  
 73. World Economic Forum 2013.  
 74. ILO 2015d.  
 75. ADB 2008.  
 76. ILO 2010.  
 77. Fares and Puerto 2009.  
 78. Angel-Urdinola et al. 2010.  
 79. UNESCO 2015b.  
 80. UN DESA 2015b.  
 81. ADB 2014d.  
 82. UNESCO 2016.  
 83. UNESCAP 2015a.  
 84. World Bank 2015b.  
 85. ADB 2014d.  
 86. UNESCAP 2015a.  
 87. Ibid.  
 88. Global Migration Group 2014.  
 89. UNESCAP 2015b.  
 90. World Bank 2014d.  
 91. Asian Barometer 2016.  
 92. Ibid.  
 93. Telefónica 2013.  
 94. UNESCO 2008.  
 95. Norbu 2014.  
 96. OECD countries have an average of 3.2 doctors and 8.7 nurses per 1,000 people. Asia-Pacific countries have only 1.2 doctors and 2.8 nurses per 1,000, for the latest years with available data. See OECD and WHO 2014.  
 97. WHO 2010.  
 98. UNESCAP 2014.  
 99. World Economic Forum 2013.  
 100. Angel-Urdinola et al. 2010.  
 101. ILO 2015f.  
 102. Ibid.  
 103. Ibid.
2. UN DESA 2015a.  
 3. Ibid.  
 4. Ibid.  
 5. Ibid.  
 6. At the regional level, there is a shift in the dependency ratio over the decades. Initially, the proportion of young people was rising, while that of the elderly population (60 and above) was decreasing. Both of these trends peaked in 1965 and have reversed direction thereafter.  
 7. UNDP 2015a.  
 8. Gorman 2007 as cited in Mujahid 2012.  
 9. ILO 2011a.  
 10. Barrientos 2012.  
 11. Evans et al. 2006.  
 12. Government of Sri Lanka 2002.  
 13. Shon and Palley 2014.  
 14. Priebe and Howell 2014.  
 15. Ibid.  
 16. ILO 2015g.  
 17. The Human Development Report 2015 distinguishes between the concepts of 'work' and 'job'. Work is a much broader concept, including unpaid care work, voluntary work and other types of work with a large impact on human development. For further details, see UNDP 2015a.  
 18. UN Women 2015b.  
 19. The feminization of poverty is a change in poverty level biased against women or female-headed households.  
 20. UNDP 2015a.  
 21. Bibby 2010.  
 22. Beales 2002.  
 23. Handayani and Babajanian 2012.  
 24. Ibid.  
 25. UN 2012a.  
 26. Ageism is stereotyping and prejudice against older people that can lead to age discrimination.  
 27. United Nations 2012b.  
 28. See, for example, United Nations 2011.  
 29. United Nations 2012b.  
 30. Knox-Vydmann 2011.  
 31. UN 2012a.  
 32. UNPFA and HelpAge International 2011a.  
 33. UNESCAP 2012.  
 34. UN DESA 2011.  
 35. World Bank 2016.  
 36. UN DESA 2007.  
 37. UNSW, SPC and University of the Queensland 2014.  
 38. World Bank 2016.  
 39. UNSW, SPC and University of the Queensland 2014.  
 40. UNDP 2014.  
 41. WHO 2007a.  
 42. Langenbrunner and Somonathan 2011; Chongsuvivatwong et al. 2011.
43. WHO 2014d.  
 44. Chongsuvivatwong et al. 2011.  
 45. NPR news 2008.  
 46. United Nations 2012b.  
 47. Population Reference Bureau 2012.  
 48. Cooper et al. 2009, cited in Oliver et al. 2014.  
 49. WHO 2012.  
 50. O'Donnell et al. 2008.  
 51. United Nations 2012a. A survey conducted in Asia-Pacific countries in May 2011 by UNESCAP assessed the implementation status of the Madrid Plan of Action. The survey results are presented in UNESCAP 2012.  
 52. Cai and Wang 2014.  
 53. United Nations 2013a.  
 54. Park and Estrada 2012.  
 55. World Bank 2008  
 56. Mujahid 2012; Falkingham and Vlachantoni 2010.  
 57. The proportion comes down to 20 percent when non-contributory pensions are taken out.  
 58. ILO 2014a.  
 59. ILO 2015g.  
 60. ILO 2014a.  
 61. Wang 2014.  
 62. ILO 2014a.  
 63. Feng and Chen 2014.  
 64. The low coverage of contributory pensions in most Asia-Pacific countries has been noted by two major studies. IMF 2011, for instance, noted a particularly low coverage rate, citing an average of 26 percent in seven countries. The Asian Development Bank analysed public pension systems in eight countries (China, Indonesia, Malaysia, Philippines, Republic of Korea, Singapore, Thailand and Viet Nam), and concluded that most face the problems of low coverage and low levels of benefits (Park and Estrada 2012).  
 65. ILO 2015g.  
 66. ILO 2014a.  
 67. OECD 2016.  
 68. ILO 2014a.  
 69. Despite relatively low replacement rates, older people in Japan, rather than being a burden to family, transfer resources to younger generations by spending money on their children and grandchildren or by leaving it to them when they die.  
 70. ADBI 2012.  
 71. Ibid.  
 72. IMF 2011.  
 73. Asher 2012.  
 74. Nguyen 2002.  
 75. Mason and Lee 2011.  
 76. The concept of 'ageing in place' is a popular current term. It is defined as

## CHAPTER 4

1. Constructed by HelpAge International, the Global AgeWatch Index ranks countries by how well their older populations are faring in social and economic well-being. It consists of four dimensions—income status, health status, education and employment, and enabling environment—with 13 indicators. An 'enabling environment' has four indicators: social connection, physical safety, civic freedom and access to public transport. For further details, see HelpAge International 2015.

- living in the community, with some level of independence, rather than in residential care.
77. Yuen 2015.  
 78. Clapham 2015.  
 79. Yuen 2015.  
 80. UN DESA 2011; WHO 2007b.  
 81. Global City Indicators Facility 2013.  
 82. The Economist 2013.  
 83. Verena 2012.  
 84. World Bank 2016.  
 85. UNDP 2015a.  
 86. UN DESA 2011.  
 87. Bouman et al. 2015.  
 88. Marsh 2012.  
 89. United Nations 2013b.  
 90. Singapore has an early retirement age of 55 for both men and women, but it also has substantial post-retirement reemployment.  
 91. Wang 2014.  
 92. East West Centre 2002.  
 93. In the United States, labour force participation increased from 1990 to 2010. Only 12.1 percent of people aged 65 years and older were in the labour force in 1990; 16.1 percent were in 2010 (Kromer and Howard 2013).  
 94. United Nations 2013a.  
 95. Ibid.  
 96. UNFPA and HelpAge International 2012a.  
 97. UN DESA 2011.  
 98. United Nations 2012a.  
 99. UNFPA and HelpAge International 2012a.  
 100. UNFPA 2011.  
 101. World Bank 2016.  
 102. IMF 2011.  
 103. Wang 2014.  
 104. Lu et al. 2013.  
 105. Langenbrunner and Somonathan 2011.  
 106. Ibid.  
 107. Tangcharoensathien et al. 2011.  
 108. Mason and Lee 2012.  
 109. Cai and Wang 2014.  
 110. The ratio is calculated by holding age-specific public transfer inflows and outflows constant, while allowing population age structure to change in accordance with historical estimates and projections. The ratio is the projected tax revenues relative to public transfers (cash and in kind) as a percentage of values in 2010. Revenues and expenditures are projected assuming that per capita taxes and public transfers/expenditure by single year of age remain constant at base-year values. Thus, values are the result of changes in population age structure only.  
 111. The role of the public sector is, in fact, growing quite rapidly in most countries of the region. In the Republic of Korea, for example, social welfare benefits for the elderly rose sharply over a very short period.
112. ILO 2014a  
 113. Naoyuki et al. 2015.  
 114. East West Center 2000.  
 115. Stanton 2006.  
 116. UNDP 2015a.  
 117. East West Center 2002.
- ## CHAPTER 5
1. UN DESA 2014.
  2. United Nations 2012c.
  3. Definitions of 'urban' areas differ, including across countries. This means that data are not always directly comparable at the regional or global levels. Government reclassification of areas as 'urban' can also be based on incentives that do not necessarily reflect actual conditions. Differences at the global level are illustrated by a comparison of data definitions used by UN DESA (2014) and the Brookings Institute (2012). Brookings data for Jakarta include large peri-urban areas, resulting in a far larger population than the UN DESA estimates. Many datasets also fail to include temporary migrants. This report tries to make clear the definition of urban used whenever statistics are presented. For all population estimates, the report relies on the UN DESA definition and its corresponding statistics.
  4. UN DESA 2014.
  5. Ibid.
  6. ADB 2012a.
  7. UN DESA 2013a.
  8. McKinsey Global Institute 2009.
  9. UN-Habitat 2012a.
  10. 'Children' are defined as people aged 0 to 14; 'youth' as between the ages of 15 and 24; 'working-age' as those aged 15 to 59; and 'elderly' as people aged 60 and above. The listed year indicates the date of the household survey included in UN DESA 2013b. All surveys are from 2009 to 2013, except Lao People's Democratic Republic (2005). See UN DESA 2013c.
  11. It is also largely true globally. Rural dependency ratios tend to be higher than urban dependency ratios across all regions, and they tend to be highest in rural areas of the least developed regions. See Anríquez and Bonomi 2008.
  12. GDP data is in constant 2005 US dollars.
  13. The year of the baseline data in Cambodia was 1996.
  14. Migration decisions are also not only about whether or not to migrate, but also where to go. Potential migrants face complicated decisions with many different options and uncertain consequences. They are often making these different decisions simultaneously.
  15. Deshingkar 2006.
  16. For example, a 2005 study found that domestic remittances contributed between 20 percent and 50 percent of the total income of recipient rural households in China (Cheng and Zhong 2005).
  17. Dudwick et al. 2011.
  18. Lall et al. 2009.
  19. According to Kirsch et al. (2012), the flood destroyed 55 percent of affected homes and caused 87 percent of households to move; lack of electricity increased from 19 percent to 33 percent; and 88 percent of the affected population reported a loss of income. After six months, most people had not recovered their prior standard of living. Rural households were more commonly impacted and slower to recover.
  20. For examples, see de Haan and Rogaly 2002, Gardner and Osella 2003, and Shah 2006.
  21. Cities are not immune from discrimination, including for newly arrived migrants. But this does not discount the lure of cities as an escape for many from the constraints of rural areas.
  22. For example, a survey in China found the attractions of city life as among the primary drivers of rural-urban migration (Hu 2012).
  23. UN-HABITAT 2012b.
  24. According to UN-Habitat (2012b), traditionally lower levels of female rural-urban migration in South Asia have been explained by factors such as socio-cultural restrictions on independent female movement, marriage customs where couples reside with the husband's parents, social norms that encourage young men to move to the city, and the lack of employment opportunities for women in towns and cities. For more on female migration in South-east Asia, see Chant and McIlwaine 2009.
  25. The World Bank (2013b) found a large degree of overlap between a country's level of agglomeration and its income classification. Most low-income countries are low-agglomeration countries and most advanced economies are high-agglomeration economies.
  26. McKinsey Global Institute 2012.
  27. Bangkok, for example, is home to less than 20 percent of Thai citizens but

- produces 40 percent of total economic output. Higher shares of output relative to population are also true for Manila, Tokyo, Kuala Lumpur and Jakarta.
28. McKinsey Global Institute 2012.
  29. UNDP and Institute for Urban and Environmental Studies, Chinese Academy of Social Sciences 2013.
  30. UNICEF 2012. Another study of Viet Nam found that the lack of adequate policies and the residence-based nature of the social policy framework create multiple vulnerabilities and social exclusion among rural-urban migrants (IDS 2011).
  31. ADB 2014e.
  32. See Ferré et al. 2012. The World Bank (2013b) found that urban poverty in South Asia and East Asia is mostly present in smaller towns. Urban poverty rates in South Asia were also significantly higher in smaller towns than megacities. See also Deichmann et al. 2009.
  33. For example, some governments may impose below-market prices for agricultural output and above-market prices for urban products (Quigley 2008) or allocate resources in favour of larger cities at the expense of smaller towns (Ferré et al. 2012).
  34. Sheng 2012.
  35. UN-HABITAT 2012b; UNESCAP 2010.
  36. For the purposes of the Millennium Development Goal target, slum households were defined as those with at least one of the following four characteristics: (a) lack of access to an improved water supply; (b) lack of access to improved sanitation; (c) overcrowding (three or more persons per room); and (d) dwellings made of non-durable material. See United Nations 2015b.
  37. Based on Yuen 2005.
  38. UN-HABITAT 2011.
  39. UN DESA 2014.
  40. Parts of this section are drawn from Yuen 2014.
  41. Depending on location, income and population size, local governments have been variously categorized as wards, districts, communes, shires, counties, municipalities, cities, prefectures and provinces.
  42. Charter cities are those that have locally generated income of at least PHP100 million for two consecutive years and have a population of at least 150,000 or a contiguous territory of 100 square kilometres.
  43. UN-HABITAT and UNESCAP 2010.
  44. Bardhan 2002; Chiarelli et al. 2010.
  45. For example, see Choudhury 2007.
  46. World Bank 2010.
  47. ADB 2009.
  48. Mayer-Foulkes 2010.
  49. World Bank 2013b.
  50. McDevitt 2014.
  51. Government of India 2015.
  52. UN-HABITAT and UNESCAP 2010; CIOL Network DataQuest 2014.
  53. Talip and Narayan 2012.
  54. For example, estimates indicate that a 10 percent development fee imposed on the cost of new construction in Mumbai, India, could finance 40 percent to 50 percent of all regional infrastructure investment required over the next 20 years (Peterson 2009).
  55. Association of London Government 2005; Peterson 2009; Walls 2013.
  56. Ho Chi Minh City Investment Fund for Urban Development 2004.
  57. UN-HABITAT and UNESCAP 2010.
  58. World Bank 2010.
  59. UNFPA 2014a.
  60. The Asian Development Bank implemented a two-year "Institutionalizing Civil Society Participation to Create Local Pro-poor Budgets" pilot project in Indonesia, Marshall Islands and Pakistan to "enhance civil society's awareness of resource allocation and the budgeting process and their actual involvement in the budget decision-making process" (Ahmad and Weiser 2006).
  61. Janwani 2010.
  62. Asian Coalition of Housing Rights 2010.
  63. Based on Dahiya 2003.
  64. OECD 2010.
  65. The Economist 2014d.
- Republic of Korea, Singapore, Sri Lanka and Thailand.
10. Chuan 2015.
  11. See, for example, Gessa et al. 2015; Bordone 2016.
  12. For example, in South Asia, urban women earn 42 percent less than their male counterparts; rural women earn 28 percent less. See UN Women 2015b.

## CHAPTER 6

1. United Nations 2015a, paragraph 34.
2. UN Women 2015b.
3. Economist Intelligence Unit (2010) and Ellis et al. (2010) suggest a glaring gap between men's and women's statutory pensionable retirement ages. In Australia, the difference is up to three years; in China, up to five years; and in Viet Nam, more than five years. Lower retirement ages for women are a form of gender discrimination. They can adversely affect access to training and promotion, and therefore to economic advancement.
4. United Nations 2015a.
5. Bloom and McKenna 2015.
6. Ibid.
7. Ibid.
8. United Nations 2015a, paragraph 24.
9. Australia, China, Democratic People's Republic of Korea, Japan, New Zealand,



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# Readers' guide

## COUNTRY GROUPINGS

In this report, Asia-Pacific countries refer to those based on UNDP regional classifications. Including both developing and developed countries and areas, the region is divided into four subregional groups: East Asia, South Asia, South-east Asia and Oceania. The subregions of Central Asia and Western Asia are excluded from Asia-Pacific demographic and other data.

The term country or economies as used in this publication also refers, as appropriate, to territories or areas. As the demographic and other data for China do not include Hong Kong, China (Special Administrative Region); Macao, China (Special Administrative Region of China); and Taiwan Province of China, for statistical purposes, these areas or territories have been denoted in this report as Hong Kong, China (SAR); Macao, China (SAR); and Taiwan Province of China, respectively. The designations used and the presentation of material in this publication do not imply the expression of any opinion whatsoever on the part of the United Nations or UNDP concerning the legal or UN Member State status of any territories, cities or areas.

The descriptions of countries and areas as 'developed' and 'developing' are intended for statistical convenience and do not necessarily express a judgement about the stage reached by a particular country or area in the development process. Developed or industrialized countries generally refer to members of the Organisation for Economic Co-operation and Development.

The Asia-Pacific region encompasses 42 countries and 3 areas. These include:

### East Asia (5 countries and 3 areas)

China, Democratic People's Republic of Korea, Japan, Republic of Korea, Mongolia. Plus Hong Kong, China (SAR); Macau, China (SAR); Taiwan Province of China.

### South Asia or South-west Asia (9 countries)

Afghanistan, Bangladesh, Bhutan, India, Iran

(Islamic Republic of), Maldives, Nepal, Pakistan, Sri Lanka.

### South-east Asia (11 countries)

Brunei Darussalam, Cambodia, Indonesia, Lao People's Democratic Republic, Malaysia, Myanmar, Philippines, Singapore, Thailand, Timor-Leste, Viet Nam.

### Oceania (17 countries)

Australia, Cook Islands, Fiji, Kiribati, Marshall Islands, Micronesia (Federated States of), Nauru, New Zealand, Niue, Palau, Papua New Guinea, Samoa, Solomon Islands, Tokelau, Tonga, Tuvalu, Vanuatu.

Wherever possible, all 45 countries and areas are reported in data tables to maintain uniformity; notes alert readers to data limitations. Lack of data in itself is a finding that may in some cases suggest the need for building statistical capacity.

The report generally uses the above categorization of countries, except for data from some specific sources. For World Bank data, subregional groupings generally follow the World Bank classification, which combines developing East Asia, South-east Asia and Oceania as East Asia-Pacific. For data from the International Labour Organization (ILO), subregional groupings generally follow its classification, which combines developing South-east Asia and Oceania as South-east Asia-Pacific.

Differences between classifications by UNDP and the World Bank are as follows.

East Asia and the Pacific (developing countries): 23 out of 24 countries are common in both UNDP and World Bank classifications. UNDP includes Nauru; the World Bank includes American Samoa.

South Asia: The World Bank classification includes eight countries. The UNDP classification includes all of these as well as the Islamic Republic of Iran. To recognize the difference, some statistical tables refer to South and West Asia.

References to Latin America in the text or

tables include the Caribbean countries unless otherwise indicated.

References to Sub-Saharan Africa include South Africa unless otherwise indicated.

Cultural Organization's Institute of Statistics online database, available at [www.uis.unesco.org/DataCentre/](http://www.uis.unesco.org/DataCentre/).

Data on health are from the World Health Organization.

## KEY DATA SOURCES

Data in the report are derived from several key databases as listed below.

### Demographic data

Data on demographics were obtained from the World Population Prospects projections of the United Nations Department of Economic and Social Affairs. The latest data come from the 2015 revisions. For projections beyond 2015, the medium variant on fertility is used according to which global fertility is projected to fall from 2.5 children per woman in 2010 to 2015 to 2.4 in 2025 to 2030 and 2.0 in 2095 to 2100.

The report refers to five age groups. Children, youth and young are defined as aged 0 to 14, 15 to 24, and 0-24 respectively. Different countries and institutions use different definitions. For comparability, this report uses the UN definition.

The categorization of working-age people also varies across countries and regions depending on the approximate age of entry to and exit from the workforce. The report generally applies the parameters of ages 15 to 64. Age 60 and beyond denotes older adults.

### Data on labour markets

Extensive data on labor markets are used to understand the employment and occupations of working-age people in the region. Data on employment, labour force participation, unemployment, labour productivity, sectoral decomposition of employment and wages were obtained from the ILO's Key Indicators for the Labor Market database, 8th edition. Limited data are available on underemployment and informal sector employment; these were obtained from specific ILO publications.

### Data on education and health

Data on education come predominantly from the United Nations Educational, Scientific and

### Data on urbanization

Data on urbanization are from the World Urbanization Prospects database of the United Nations Department of Economic and Social Affairs. The latest data are from the 2014 database. They include data on urbanization rates; rural-urban distribution of population; small, medium and megacities; and age composition.

### Data on the Human Development Index and other development indicators

Data on human development were obtained from the 2014 dataset produced by UNDP's Human Development Report Office for its 2015 Human Development Report. Annex tables include data from the Human Development Index, Gender Development Index, multidimensional poverty measures and indices adjusted for inequality.

Throughout the report, numerous development indicators come from a variety of other sources including the World Bank's World Development Indicators database and the Millennium Development Goals database.

# Statistical Annex

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**TABLE 1:**  
**Human Development Index and Inequality-adjusted Human Development Index**

HDI rank	Region, country or area	Human Development Index (HDI)	Life expectancy at birth	Expected years of schooling	Mean years of schooling	Gross national income (GNI) per capita	Inequality-adjusted HDI (IHDI)	Inequality in life expectancy	Inequality in education	Inequality in income
		(Value)	(Years)	(Years)	(Years)	(2011 PPP \$)	(Value)	Overall loss (%)	(%)	(%)
		2014	2014	2014	2014	2014	2014	2014	2010–2015	2014
<b>VERY HIGH HUMAN DEVELOPMENT</b>										
2	Australia	0.935	82.4	20.2	13.0	42,261	0.858	8.2	4.2	1.9
9	New Zealand	0.913	81.8	19.2	12.5	32,689	..	..	4.8	..
11	Singapore	0.912	83.0	15.4	10.6	76,628	..	..	2.8	..
12	Hong Kong, China (SAR)	0.910	84.0	15.6	11.2	53,959	..	..	2.8	..
17	Republic of Korea	0.898	81.9	16.9	11.9	33,890	0.751	16.4	3.9	25.5
20	Japan	0.891	83.5	15.3	11.5	36,927	0.780	12.4	3.2	19.8
31	Brunei Darussalam	0.856	78.8	14.5	8.8	72,570	..	..	4.4	..
<b>HIGH HUMAN DEVELOPMENT</b>										
60	Palau	0.780	72.7	13.7	12.3	13,496	..	..	..	12.0
62	Malaysia	0.779	74.7	12.7	10.0	22,762	..	..	4.9	..
69	Iran (Islamic Republic of)	0.766	75.4	15.1	8.2	15,440	0.509	33.6	12.5	37.3
73	Sri Lanka	0.757	74.9	13.7	10.8	9,779	0.669	11.6	8.3	12.8
90	China	0.727	75.8	13.1	7.5	12,547	..	..	9.8	..
90	Fiji	0.727	70.0	15.7	9.9	7,493	0.616	15.3	12.3	10.5
90	Mongolia	0.727	69.4	14.6	9.3	10,729	0.633	12.9	16.6	9.4
93	Thailand	0.726	74.4	13.5	7.3	13,323	0.576	20.6	9.8	16.1
100	Tonga	0.717	72.8	14.7	10.7	5,069	..	..	13.7	..
104	Maldives	0.706	76.8	13.0	5.8	12,328	0.531	24.9	8.1	40.0
105	Samoa	0.702	73.4	12.9	10.3	5,327	..	..	13.3	..
<b>MEDIUM HUMAN DEVELOPMENT</b>										
110	Indonesia	0.684	68.9	13.0	7.6	9,788	0.559	18.2	16.4	20.8
115	Philippines	0.668	68.2	11.3	8.9	7,915	0.547	18.1	15.2	11.6
116	Viet Nam	0.666	75.8	11.9	7.5	5,092	0.549	17.5	12.1	18.0
123	Micronesia (Federated States of)	0.640	69.1	11.7	9.7	3,432	..	..	19.8	..
130	India	0.609	68.0	11.7	5.4	5,497	0.435	28.6	25.0	42.1
132	Bhutan	0.605	69.5	12.6	3.0	7,176	0.425	29.8	22.2	44.8
133	Timor-Leste	0.595	68.2	11.7	4.4	5,363	0.412	30.7	22.8	47.6
134	Vanuatu	0.594	71.9	10.6	6.8	2,803	0.492	17.2	15.4	18.5
137	Kiribati	0.590	66.0	12.3	7.8	2,434	0.405	31.5	20.6	21.4
141	Lao People's Democratic Republic	0.575	66.2	10.6	5.0	4,680	0.428	25.6	21.5	34.1
142	Bangladesh	0.570	71.6	10.0	5.1	3,191	0.403	29.4	20.1	38.6
143	Cambodia	0.555	68.4	10.9	4.4	2,949	0.418	24.7	25.3	28.3
<b>LOW HUMAN DEVELOPMENT</b>										
145	Nepal	0.548	69.6	12.4	3.3	2,311	0.401	26.8	21.1	41.4
147	Pakistan	0.538	66.2	7.8	4.7	4,866	0.377	29.9	29.9	44.4
148	Myanmar	0.536	65.9	8.6	4.1	4,608	..	..	27.1	19.4
156	Solomon Islands	0.506	67.9	9.2	5.0	1,540	0.385	23.8	22.3	22.8
158	Papua New Guinea	0.505	62.6	9.9	4.0	2,463	..	..	26.5	11.5
171	Afghanistan	0.465	60.4	9.3	3.2	1,885	0.319	31.4	34.3	44.8
<b>Regions</b>										
	Arab States	0.686	70.6	12.0	6.4	15,722	0.512	25.4	17.4	38.9
	East Asia and the Pacific	0.710	74.0	12.7	7.5	11,449	0.572	19.4	11.7	18.4
	Europe and Central Asia	0.748	72.3	13.6	10.0	12,791	0.651	13.0	14.3	7.9
	Latin America and the Caribbean	0.748	75.0	14.0	8.2	14,242	0.570	23.7	13.3	21.0
	South Asia	0.607	68.4	11.2	5.5	5,605	0.433	28.7	24.4	41.5
	Sub-Saharan Africa	0.518	58.5	9.6	5.2	3,363	0.345	33.3	36.6	35.3
	<b>Developing countries</b>	0.660	69.8	11.7	6.8	9,071	0.490	25.7	19.9	32.3
	<b>Least developed countries</b>	0.502	63.3	9.3	4.1	2,387	0.347	30.9	32.3	23.4
	<b>Small island developing states</b>	0.660	70.1	11.4	7.9	6,991	0.493	25.3	18.6	21.3
	<b>Organisation for Economic Co-operation and Development (OECD)</b>	0.880	80.2	15.8	11.5	37,658	0.763	13.3	5.6	9.5
	<b>World</b>	0.711	71.5	12.2	7.9	14,301	0.548	22.8	17.4	26.8

Notes:

Countries or territories that do not have HDI calculations include Cook Islands, Democratic People's Republic of Korea, Macao, SAR (China), Marshall Islands, Nauru, Niue, Taiwan Province of China, Tokelau and Tuvalu.

**TABLE 2:**  
Trends in the Human Development Index 1990-2014

HDI rank	Region, country or area	Human Development Index (HDI)				HDI Rank	Average annual HDI growth				
		(Value)					(Change)	1990-2000	2000-2010	2010-2014	
		1990	2000	2010	2014						
<b>VERY HIGH HUMAN DEVELOPMENT</b>											
2	Australia	0.87	0.90	0.93	0.93	0	0.36	0.33	0.20	0.32	
9	New Zealand	0.82	0.87	0.90	0.91	-1	0.64	0.35	0.24	0.45	
11	Singapore	0.72	0.82	0.90	0.91	11	1.33	0.92	0.41	1.00	
12	Hong Kong, China (SAR)	0.78	0.83	0.90	0.91	2	0.55	0.85	0.32	0.64	
17	Republic of Korea	0.73	0.82	0.89	0.90	0	1.16	0.77	0.33	0.86	
20	Japan	0.81	0.86	0.88	0.89	-3	0.51	0.31	0.18	0.37	
31	Brunei Darussalam	0.78	0.82	0.84	0.86	1	0.46	0.29	0.37	0.38	
<b>HIGH HUMAN DEVELOPMENT</b>											
60	Palau	..	0.74	0.77	0.78	0	..	0.31	0.44	..	
62	Malaysia	0.64	0.72	0.77	0.78	1	1.21	0.62	0.32	0.82	
69	Iran (Islamic Republic of)	0.57	0.67	0.74	0.77	7	1.62	1.11	0.74	1.26	
73	Sri Lanka	0.62	0.68	0.74	0.76	5	0.91	0.85	0.62	0.83	
90	China	0.50	0.59	0.70	0.73	13	1.62	1.74	1.02	1.57	
90	Fiji	0.63	0.68	0.72	0.73	1	0.72	0.56	0.36	0.59	
90	Mongolia	0.58	0.59	0.70	0.73	14	0.18	1.68	1.11	0.96	
93	Thailand	0.57	0.65	0.72	0.73	3	1.25	1.00	0.35	1.00	
100	Tonga	0.65	0.67	0.71	0.72	-4	0.32	0.60	0.14	0.41	
104	Maldives	..	0.60	0.68	0.71	2	..	1.25	0.86	..	
105	Samoa	0.62	0.65	0.70	0.70	-3	0.45	0.70	0.21	0.52	
<b>MEDIUM HUMAN DEVELOPMENT</b>											
110	Indonesia	0.53	0.61	0.66	0.68	3	1.34	0.92	0.71	1.06	
115	Philippines	0.59	0.62	0.65	0.67	-1	0.61	0.50	0.52	0.55	
116	Viet Nam	0.48	0.57	0.65	0.67	1	1.92	1.29	0.47	1.41	
123	Micronesia (Federated States of)	..	0.60	0.64	0.64	-2	..	0.56	0.06	..	
130	India	0.43	0.50	0.59	0.61	6	1.49	1.67	0.97	1.48	
132	Bhutan	..	..	0.57	0.61	..	..	..	1.39	..	
133	Timor-Leste	..	0.47	0.60	0.59	1	..	2.51	-0.22	..	
134	Vanuatu	..	..	0.59	0.59	1	..	..	0.19	..	
137	Kiribati	..	..	0.59	0.59	-1	..	..	0.09	..	
141	Lao People's Democratic Republic	0.40	0.46	0.54	0.58	2	1.51	1.56	1.62	1.55	
142	Bangladesh	0.39	0.47	0.55	0.57	0	1.94	1.57	1.07	1.64	
143	Cambodia	0.36	0.42	0.54	0.55	1	1.40	2.50	0.87	1.77	
<b>LOW HUMAN DEVELOPMENT</b>											
145	Nepal	0.38	0.45	0.53	0.55	3	1.62	1.64	0.78	1.49	
147	Pakistan	0.40	0.44	0.52	0.54	0	1.07	1.62	0.79	1.25	
148	Myanmar	0.35	0.43	0.52	0.54	1	1.90	2.03	0.72	1.76	
156	Solomon Islands	..	0.45	0.49	0.51	-2	..	1.02	0.57	..	
158	Papua New Guinea	0.35	0.42	0.49	0.51	-2	1.87	1.51	0.60	1.51	
171	Afghanistan	0.30	0.33	0.45	0.47	0	1.20	2.97	0.97	1.89	
<b>Regions</b>											
Arab States											
East Asia and the Pacific											
Europe and Central Asia											
Latin America and the Caribbean											
South Asia											
Sub-Saharan Africa											
<b>Developing countries</b>											
<b>Least developed countries</b>											
<b>Small island developing states</b>											
<b>Organisation for Economic Co-operation and Development (OECD)</b>											
<b>World</b>											

**TABLE 3:**  
**Gender Development Index**

HDI rank	Region, country or area	Gender Development Index (GDI)		Human Development Index (HDI)		Life expectancy at birth		Expected years of schooling		Mean years of schooling		Estimated gross national income per capita	
		(Value)	(GDI group)	(Value)		(Years)		(Years)		(Years)		(2011 PPP \$)	
				2014	2014	Female	Male	2014	2014	Female	Male	2014	2014
<b>VERY HIGH HUMAN DEVELOPMENT</b>													
2	Australia	0.976	1	0.922	0.945	84.5	80.3	20.7	19.7	13.1	12.9	33,688	50,914
9	New Zealand	0.961	2	0.894	0.930	83.6	80.0	20.0	18.3	12.5	12.6	24,309	41,372
11	Singapore	0.985	1	0.898	0.912	86.0	79.9	15.5	15.3	10.1	10.9	59,994	93,699
12	Hong Kong, China (SAR)	0.958	2	0.892	0.931	86.8	81.2	15.7	15.5	10.9	11.9	38,060	72,052
17	Republic of Korea	0.930	3	0.861	0.926	85.0	78.5	16.0	17.7	11.2	12.7	21,896	46,018
20	Japan	0.961	2	0.870	0.905	86.7	80.2	15.2	15.5	11.3	11.7	24,975	49,541
31	Brunei Darussalam	0.977	1	0.840	0.860	80.7	77.0	14.9	14.2	8.5	9.0	54,228	90,437
<b>HIGH HUMAN DEVELOPMENT</b>													
60	Palau	..	..	..	..	..	..	13.9	13.5	..	..	..	..
62	Malaysia	0.947	3	0.753	0.795	77.1	72.4	12.7	12.7	9.4	10.1	15,635	30,320
69	Iran (Islamic Republic of)	0.858	5	0.689	0.804	76.5	74.3	15.0	15.2	7.7	8.6	4,828	25,924
73	Sri Lanka	0.948	3	0.730	0.769	78.2	71.5	14.2	13.3	10.7	10.9	5,452	14,307
90	China	0.943	3	0.705	0.747	77.3	74.3	13.2	12.9	6.9	8.2	10,128	14,795
90	Fiji	0.941	3	0.699	0.743	73.2	67.2	16.0	15.5	9.8	10.0	4,274	10,592
90	Mongolia	1.028	2	0.737	0.716	73.9	65.3	15.3	13.9	9.5	9.0	9,029	12,462
93	Thailand	1.000	1	0.726	0.726	77.9	71.1	13.9	13.1	7.1	7.5	11,820	14,888
100	Tonga	0.967	2	0.704	0.727	75.8	69.9	15.0	14.4	10.7	10.8	3,796	6,336
104	Maldives	0.937	3	0.678	0.723	77.8	75.8	12.8	12.5	5.7	6.0	8,531	16,073
105	Samoa	0.956	2	0.681	0.713	76.8	70.4	13.2	12.5	10.3	10.3	3,416	7,124
<b>MEDIUM HUMAN DEVELOPMENT</b>													
110	Indonesia	0.927	3	0.655	0.706	71.0	66.9	13.1	12.9	7.0	8.2	6,485	13,052
115	Philippines	0.977	1	0.649	0.664	71.8	64.9	11.5	11.1	8.4	7.9	5,382	10,439
116	Viet Nam	..	..	..	..	80.5	71.0	..	..	7.0	7.9	4,624	5,570
123	Micronesia (Federated States of)	..	..	..	..	70.1	68.1	..	..	..	..	..	..
130	India	0.795	5	0.525	0.660	69.5	66.6	11.3	11.8	3.6	7.2	2,116	8,656
132	Bhutan	0.897	5	0.572	0.638	69.7	69.2	12.8	12.6	2.0	4.1	5,733	8,418
133	Timor-Leste	0.868	5	0.548	0.631	70.1	66.5	11.3	12.0	3.6	5.3	3,122	7,530
134	Vanuatu	0.903	4	0.587	0.650	74.0	69.9	10.2	10.9	8.0	10.0	2,141	3,445
137	Kiribati	..	..	..	..	69.2	62.8	12.7	11.9	..	..	..	..
141	Lao People's Democratic Republic	0.896	5	0.543	0.606	67.5	64.8	10.1	11.0	3.9	6.1	4,086	5,279
142	Bangladesh	0.917	4	0.541	0.590	72.9	70.4	10.3	9.7	4.5	5.5	2,278	4,083
143	Cambodia	0.890	5	0.519	0.584	70.3	66.2	10.3	11.5	3.2	5.4	2,526	3,393
<b>LOW HUMAN DEVELOPMENT</b>													
145	Nepal	0.908	4	0.521	0.574	71.1	68.2	12.5	12.2	2.3	4.5	1,956	2,690
147	Pakistan	0.726	5	0.436	0.601	67.2	65.3	7.0	8.5	3.1	6.2	1,450	8,100
148	Myanmar	..	..	..	..	68.0	63.9	..	..	4.3	3.8	3,873	5,386
156	Solomon Islands	..	..	..	..	69.4	66.5	8.8	9.7	..	..	1,046	2,019
158	Papua New Guinea	..	..	..	..	64.8	60.5	..	..	3.2	4.8	2,145	2,768
171	Afghanistan	0.600	5	0.328	0.546	61.6	59.2	7.2	11.3	1.2	5.1	506	3,227
<b>Regions</b>													
	Arab States	0.849	—	0.611	0.719	72.7	68.8	11.6	12.3	4.9	6.9	5,686	24,985
	East Asia and the Pacific	0.948	—	0.692	0.730	76.0	72.2	13.0	12.8	6.9	8.0	9,017	13,780
	Europe and Central Asia	0.945	—	0.719	0.760	76.1	68.5	13.5	13.8	9.0	10.0	8,238	17,607
	Latin America and the Caribbean	0.976	—	0.736	0.754	78.2	71.7	14.4	13.7	8.0	8.1	10,194	18,435
	South Asia	0.801	—	0.525	0.655	69.9	67.1	10.8	11.3	3.7	6.9	2,198	8,827
	Sub-Saharan Africa	0.872	—	0.480	0.550	59.7	57.1	9.1	10.3	4.2	6.0	2,626	4,148
	<b>Developing countries</b>	0.899	—	0.617	0.686	71.7	68.0	11.6	11.9	5.4	7.3	5,926	12,178
	<b>Least developed countries</b>	0.866	—	0.465	0.537	64.8	61.9	8.9	10.0	3.2	4.9	1,783	3,005
	<b>Small island developing states</b>	..	—	..	..	72.6	67.8	13.4	12.6	..	..	5,045	8,849
	<b>Organisation for Economic Co-operation and Development (OECD)</b>	0.973	—	0.862	0.887	82.7	77.5	16.0	15.5	11.0	11.5	28,430	47,269
	<b>World</b>	0.924	—	0.670	0.725	73.7	69.5	12.2	12.4	6.2	7.9	10,286	18,373

**TABLE 4:**  
**Gender Inequality Index**

Country	Gender Inequality Index (GII)		Maternal mortality ratio	Adolescent birth rate	Share of seats in parliament	Population with at least some secondary education (% ages 25 and older)		Labour force participation rate (% ages 15 and older)	
	(Value)	(Rank)	(Deaths per 100,000 live births)	(Births per 1,000 women aged 15-19)	(% held by women)	(Female)	(Male)	(Female)	(Male)
	2014	2014	2013	2010/2015	2014	2005-2014	2005-2014	2013	2013
<b>VERY HIGH HUMAN DEVELOPMENT</b>									
2 Australia	0.110	19	6	12.1	30.5	94.3	94.6	58.8	71.8
9 New Zealand	0.157	32	8	25.3	31.4	95.0	95.3	62.0	73.8
11 Singapore	0.088	13	6	6.0	25.3	74.1	81.0	58.8	77.2
12 Hong Kong, China (SAR)	..	..	..	3.3	..	72.2	79.2	51.3	67.8
17 Republic of Korea	0.125	23	27	2.2	16.3	77.0	89.1	50.1	72.1
20 Japan	0.133	26	6	5.4	11.6	87.0	85.8	48.8	70.4
31 Brunei Darussalam	..	..	27	23.0	..	63.9	67.8	52.6	75.3
<b>HIGH HUMAN DEVELOPMENT</b>									
60 Palau	..	..	..	..	10.3	..	..	..	..
62 Malaysia	0.209	42	29	5.7	14.2	65.1	71.3	44.4	75.5
69 Iran (Islamic Republic of)	0.515	114	23	31.6	3.1	62.2	67.6	16.6	73.6
73 Sri Lanka	0.370	72	29	16.9	5.8	72.7	76.4	35.1	76.3
90 China	0.191	40	32	8.6	23.6	58.7	71.9	63.9	78.3
90 Fiji	0.418	87	59	42.8	14.0	64.2	64.5	37.5	72.0
90 Mongolia	0.325	63	68	18.7	14.9	85.3	84.1	56.6	69.3
93 Thailand	0.380	76	26	41.0	6.1	35.7	40.8	64.3	80.7
100 Tonga	0.666	148	120	18.1	0.0	87.5	88.3	53.5	74.6
104 Maldives	0.243	49	31	4.2	5.9	27.3	32.7	56.2	77.5
105 Samoa	0.457	97	58	28.3	6.1	64.3	60.0	23.5	58.4
<b>MEDIUM HUMAN DEVELOPMENT</b>									
110 Indonesia	0.494	110	190	48.3	17.1	39.9	49.2	51.4	84.2
115 Philippines	0.420	89	120	46.8	27.1	65.9	63.7	51.1	79.7
116 Viet Nam	0.308	60	49	29.0	24.3	59.4	71.2	73.0	82.2
123 Micronesia (Federated States of)	..	..	96	18.6	0.0	..	..	..	..
130 India	0.563	130	190	32.8	12.2	27.0	56.6	27.0	79.9
132 Bhutan	0.457	97	120	40.9	8.3	34.0	34.5	66.7	77.2
133 Timor-Leste	..	..	270	52.2	38.5	..	..	24.6	50.8
134 Vanuatu	..	..	86	44.8	0.0	..	..	61.5	80.0
137 Kiribati	..	..	130	16.6	8.7	..	..	..	..
141 Lao People's Democratic Republic	..	..	..	65.0	25.0	22.9	37.0	76.3	79.1
142 Bangladesh	0.503	111	170	80.6	20.0	34.1	41.3	57.4	84.1
143 Cambodia	0.477	104	170	44.3	19.0	9.9	22.9	78.8	86.5
<b>LOW HUMAN DEVELOPMENT</b>									
145 Nepal	0.489	108	190	73.7	29.5	17.7	38.2	79.9	87.1
147 Pakistan	0.536	121	170	27.3	19.7	19.3	46.1	24.6	82.9
148 Myanmar	0.413	85	200	12.1	4.7	22.9	15.3	75.2	82.3
156 Solomon Islands	..	..	130	64.9	2.0	..	..	53.4	79.0
158 Papua New Guinea	0.611	140	220	62.1	2.7	7.6	14.5	70.5	74.0
171 Afghanistan	0.693	152	400	86.8	27.6	5.9	29.8	15.8	79.5
<b>Regions</b>									
Arab States	0.537	-	155	45.4	14.0	34.7	47.6	23.2	75.3
East Asia and the Pacific	0.328	-	72	21.2	18.7	54.7	66.3	62.6	79.4
Europe and Central Asia	0.300	-	28	30.8	19.0	70.8	80.6	45.6	70.0
Latin America and the Caribbean	0.415	-	85	68.3	27.0	54.3	55.2	53.7	79.8
South Asia	0.536	-	183	38.7	17.5	29.1	54.6	29.8	80.3
Sub-Saharan Africa	0.575	-	506	109.7	22.5	22.1	31.5	65.4	76.6
<b>Developing countries</b>	0.478	-	225	51.5	20.2	44.2	58.4	49.5	78.7
<b>Least developed countries</b>	0.566	-	439	97.0	20.4	17.2	26.4	65.7	82.6
<b>Small island developing states</b>	0.474	-	220	61.5	22.8	51.1	55.1	53.0	73.3
<b>Organisation for Economic Co-operation and Development (OECD)</b>	0.231	-	21	25.4	26.9	82.9	86.3	50.9	68.9
<b>World</b>	0.449	-	210	47.4	21.8	54.5	65.4	50.3	76.7

**TABLE 5:**  
**Multidimensional Poverty Index**

	Human Development Report specifications		2010 specifications		Population in multidimensional poverty		Population near multidimensional poverty		Population in severe multidimensional poverty		Contribution of deprivation in dimension to overall poverty (%)		Population living below income poverty line (%)	
	Year and survey	Index	Headcount	Index	Headcount	Headcount	Intensity of deprivation						National poverty line	PPP \$1.25 a day
Country	2005-2014	Value	(%)	Value	(%)	('000s)	(%)	(%)	(%)	Education	Health	Living standards	2004-2014	2002-2012
Afghanistan	2010/2011 M	0.293	58.8	0.353	66.2	17,116	49.9	16.0	29.8	45.6	19.2	35.2	35.8	..
Bangladesh	2011 D	0.237	49.5	0.253	51.3	75,610	47.8	18.8	21.0	28.4	26.6	44.9	31.5	43.3
Bhutan	2010 M	0.128	29.4	0.119	27.2	211	43.5	18.0	8.8	40.3	26.3	33.4	12.0	2.4
Cambodia	2010 D	0.211	46.8	0.212	45.9	6,721	45.1	20.4	16.4	25.9	27.7	46.4	17.7	10.1
China	2012 N	0.023	5.2	0.023	5.2	71,939	43.3	22.7	1.0	30.0	36.6	33.4	..	6.3
India	2005/2006 D	0.282	55.3	0.283	53.7	631,999	51.1	18.2	27.8	22.7	32.5	44.8	21.9	23.6
Indonesia	2012 D	0.024	5.8	0.066	15.5	14,574	41.3	8.1	1.1	24.7	35.1	40.2	11.3	16.2
Lao People's Democratic Republic	2011/2012 M	0.186	36.8	0.174	34.1	2,447	50.5	18.5	18.8	37.7	25.4	36.9	23.2	30.3
Maldives	2009 D	0.008	2.0	0.018	5.2	6	37.5	8.5	0.1	27.8	60.2	11.9	..	1.5
Mongolia	2010 M	0.047	11.1	0.037	9.2	302	42.5	19.3	2.3	18.1	27.7	54.2	27.4	..
Nepal	2011 D	0.197	41.4	0.217	44.2	11,255	47.4	18.1	18.6	27.3	28.2	44.5	25.2	23.7
Pakistan	2012/2013 D	0.237	45.6	0.230	44.2	83,045	52.0	14.9	26.5	36.2	32.3	31.6	22.3	12.7
Philippines	2013 D	0.033	6.3	0.052	11.0	6,221	51.9	8.4	4.2	35.3	30.2	34.5	25.2	19.0
Thailand	2005/2006 M	0.004	1.0	0.006	1.6	664	38.8	4.4	0.1	19.4	51.3	29.4	12.6	0.3
Timor-Leste	2009/2010 D	0.322	64.3	0.360	68.1	694	50.1	21.4	31.5	20.0	30.4	49.6	49.9	34.9
Vanuatu	2007 M	0.135	31.2	0.129	30.1	69	43.1	32.6	7.3	24.4	24.1	51.6	..	..
Viet Nam	2010/2011 M	0.026	6.4	0.017	4.2	5,796	40.7	8.7	1.3	35.9	25.7	38.4	17.2	2.4

**TABLE 6:**  
**Trends in income poverty, 1987-2014**

Major area, region, or country	Number of poor at \$1.90 a day (2011 PPP) (millions)			Number of poor at \$3.10 a day (2011 PPP) (millions)			Poverty headcount ratio at \$1.90 a day (2011 PPP) (% of population)			Poverty headcount ratio at \$3.10 a day (2011 PPP) (% of population)		
	1987-1993	1997-2003	2008-2014	1987-1993	1997-2003	2008-2014	1987-1993	1997-2003	2008-2014	1987-1993	1997-2003	2008-2014
<b>East Asia</b>												
China	695.7	458.5	171.8	983.0	781.9	400.5	61.5	36.2	12.9	86.9	61.8	30.1
Democratic People's Republic of Korea	-	-	-	-	-	-	-	-	-	-	-	-
Hong Kong, China (SAR)	-	-	-	-	-	-	-	-	-	-	-	-
Japan	-	-	-	-	-	-	-	-	-	-	-	-
Macao, China (SAR)	-	-	-	-	-	-	-	-	-	-	-	-
Mongolia	-	0.4	0.0	-	1.1	0.2	-	18.7	0.6	-	47.1	6.3
Republic of Korea	-	-	-	-	-	-	-	-	-	-	-	-
Taiwan Province of China	-	-	-	-	-	-	-	-	-	-	-	-
<b>South-east Asia</b>												
Brunei Darussalam	-	-	-	-	-	-	-	-	-	-	-	-
Cambodia	-	-	1.6	-	-	6.2	-	-	11.3	-	-	43.6
Indonesia	111.7	67.2	44.3	158.3	149.8	114.5	61.9	31.7	18.6	87.4	70.5	47.5
Lao People's Democratic Republic	1.9	2.4	1.9	3.3	4.1	4.1	42.6	44.7	30.0	73.5	77.2	63.3
Malaysia	0.3	0.1	0.1	2.0	1.4	0.7	1.7	0.4	0.3	11.1	6.6	2.7
Myanmar	-	-	-	-	-	-	-	-	-	-	-	-
Philippines	16.7	13.7	11.8	33.2	32.4	34.8	27.2	17.6	12.5	54.3	41.6	37.0
Singapore	-	-	-	-	-	-	-	-	-	-	-	-
Thailand	5.7	1.2	0.1	18.7	9.0	1.3	10.1	1.9	0.1	33.3	14.5	2.0
Timor-Leste	-	0.4	-	-	0.6	-	-	44.2	-	-	72.8	-
Viet Nam	33.7	28.5	6.9	52.8	53.6	22.3	49.2	36.8	8.1	77.1	69.2	25.8
<b>South Asia</b>												
Afghanistan	-	-	-	-	-	-	-	-	-	-	-	-
Bangladesh	75.3	78.7	66.2	97.3	111.3	117.7	71.9	60.0	43.7	93.0	84.8	77.6
Bhutan	-	0.2	0.0	-	0.2	0.1	-	24.9	2.2	-	30.1	13.5
India	417.4	-	318.9	701.9	-	763.1	48.2	-	26.3	80.9	-	63.0
Iran (Islamic Republic of)	3.0	1.4	0.1	9.6	7.3	1.4	5.3	2.2	0.2	17.0	11.5	1.9
Maldives	-	0.1	0.0	-	0.1	0.1	-	24.1	5.6	-	35.6	17.9
Nepal	-	11.7	4.0	-	18.5	13.0	-	47.1	15.0	-	74.4	48.4
Pakistan	62.3	35.6	14.1	88.6	91.5	76.5	60.6	26.0	8.3	86.1	66.9	45.0
Sri Lanka	1.5	1.6	0.4	6.9	6.5	3.1	8.7	8.3	2.1	40.5	34.1	15.4
<b>Oceania</b>												
Australia	-	-	-	-	-	-	-	-	-	-	-	-
Cook Islands	-	-	-	-	-	-	-	-	-	-	-	-
Fiji	-	0.0	0.0	-	0.2	0.1	-	5.1	3.6	-	20.2	17.0
Kiribati	-	-	-	-	-	-	-	-	-	-	-	-
Marshall Islands	-	-	-	-	-	-	-	-	-	-	-	-
Micronesia (Federated States of)	-	0.1	-	-	0.1	-	-	50.4	-	-	66.7	-
Nauru	-	-	-	-	-	-	-	-	-	-	-	-
New Zealand	-	-	-	-	-	-	-	-	-	-	-	-
Niue	-	-	-	-	-	-	-	-	-	-	-	-
Palau	-	-	-	-	-	-	-	-	-	-	-	-
Papua New Guinea	-	-	2.6	-	-	4.3	-	-	39.3	-	-	64.7
Samoa	-	-	0.0	-	-	0.0	-	-	0.8	-	-	8.4
Solomon Islands	-	-	-	-	-	-	-	-	-	-	-	-
Tokelau	-	-	-	-	-	-	-	-	-	-	-	-
Tonga	-	-	-	-	-	-	-	-	-	-	-	-
Tuvalu	-	-	-	-	-	-	-	-	-	-	-	-
Vanuatu	-	-	0.0	-	-	0.1	-	-	15.4	-	-	38.8
	1990	2002	2012	1990	2002	2012	1990	2002	2012	1990	2002	2012
<b>Asia-Pacific</b>	1,570.2	1,135.7	456.4	2,306.5	2,117.7	1,352.7	57.4	34.6	13.9	84.3	64.5	36.9
<b>East Asia and The Pacific</b>	995.5	552.7	147.2	1,378.6	1,043.6	453.8	60.6	29.2	7.2	83.9	55.1	22.2
<b>Europe and Central Asia</b>	8.8	29.2	10.1	36.5	67.1	30.0	1.9	6.2	2.1	7.9	14.3	6.2
<b>Latin American and the Caribbean</b>	78.2	70.5	33.7	135.6	138.1	72.2	17.8	13.2	5.6	30.8	25.8	12.0
<b>Middle East and North Africa</b>	13.5	-	-	56.3	-	-	6.0	-	-	24.9	-	-
<b>South Asia</b>	574.6	583.0	309.2	928.0	1,074.1	898.8	50.6	40.8	18.8	81.8	75.1	54.5
<b>Sub-Saharan Africa</b>	287.6	399.0	388.8	385.8	544.1	610.4	56.8	57.1	42.7	76.1	77.8	67.0
<b>World</b>	1,958.6	1,645.1	896.7	-	-	-	37.1	26.3	12.7	-	-	-

**TABLE 7:**  
**Total population and growth change**

Major area, region or country	Total population, both sex, midyear					Average annual rate of population change				
	Number (millions)					(%)				
	1950	2000	2015	2030	2050	1950-1955	1995-2000	2010-2015	2025-2030	2045-2050
<b>East Asia</b>	<b>666.6</b>	<b>1496.3</b>	<b>1612.3</b>	<b>1650.2</b>	<b>1566.8</b>	<b>1.83</b>	<b>0.65</b>	<b>0.46</b>	<b>-0.01</b>	<b>-0.40</b>
China	544.1	1270.0	1376.0	1415.5	1348.1	1.91	0.68	0.52	0.01	-0.39
Democratic People's Republic of Korea	10.5	22.8	25.2	26.7	26.9	-0.90	0.97	0.53	0.31	-0.07
Hong Kong, China (SAR)	2.0	6.8	7.3	8.0	8.1	4.65	1.98	0.83	0.43	0.04
Japan	82.2	125.7	126.6	120.1	107.4	1.45	0.20	-0.12	-0.45	-0.57
Macao, China (SAR)	0.2	0.4	0.6	0.7	0.8	-1.59	1.61	1.89	1.17	0.64
Mongolia	.8	2.4	3.0	3.5	4.0	1.83	0.85	1.74	0.90	0.60
Republic of Korea	19.2	46.2	50.3	52.5	50.6	1.94	0.68	0.48	0.21	-0.41
Taiwan Province of China	7.6	21.9	23.4	23.1	20.8	3.15	0.72	0.16	-0.16	-0.80
<b>South-east Asia</b>	<b>164.9</b>	<b>526.2</b>	<b>633.5</b>	<b>724.8</b>	<b>792.1</b>	<b>2.45</b>	<b>1.55</b>	<b>1.20</b>	<b>0.75</b>	<b>0.27</b>
Brunei Darussalam	0.0	0.3	0.4	0.5	0.5	5.57	2.28	1.47	0.87	0.27
Cambodia	4.4	12.2	15.6	19.0	22.5	2.59	2.63	1.62	1.13	0.67
Indonesia	69.5	211.5	257.6	295.5	322.2	2.12	1.43	1.28	0.76	0.25
Lao People's Democratic Republic	1.7	5.3	6.8	8.5	10.2	2.33	1.90	1.66	1.27	0.69
Malaysia	6.1	23.4	30.3	36.1	40.7	2.77	2.45	1.51	1.01	0.43
Myanmar	17.5	47.7	53.9	60.2	63.6	1.91	1.28	0.82	0.63	0.06
Philippines	18.6	77.9	100.7	123.6	148.3	3.54	2.19	1.58	1.24	0.73
Singapore	1.0	3.9	5.6	6.4	6.7	4.90	2.36	1.97	0.59	-0.01
Thailand	20.7	62.7	68.0	68.3	62.5	2.71	1.12	0.38	-0.11	-0.65
Timor-Leste	0.4	0.8	1.2	1.6	2.2	1.25	-0.22	2.28	1.74	1.46
Viet Nam	24.8	80.3	93.4	105.2	112.8	2.53	1.31	1.12	0.60	0.20
<b>South Asia</b>	<b>493.4</b>	<b>1451.9</b>	<b>1823.0</b>	<b>2147.4</b>	<b>2423.8</b>	<b>1.72</b>	<b>1.91</b>	<b>1.36</b>	<b>0.94</b>	<b>0.42</b>
Afghanistan	7.8	19.7	32.5	43.9	56.0	1.29	3.22	3.02	1.74	0.90
Bangladesh	37.9	131.3	161.0	186.5	202.2	2.12	2.06	1.20	0.81	0.18
Bhutan	0.2	0.6	0.8	0.9	0.9	2.48	2.06	1.46	0.72	0.16
India	376.3	1053.5	1311.1	1527.7	1705.3	1.68	1.84	1.26	0.88	0.38
Iran (Islamic Republic of)	17.1	65.9	79.1	88.5	92.2	2.39	1.76	1.27	0.46	0.04
Maldives	0.1	0.3	0.4	0.4	0.5	1.56	1.97	1.79	0.91	0.46
Nepal	8.5	23.7	28.5	33.1	36.2	1.82	2.08	1.18	0.83	0.26
Pakistan	37.5	138.3	188.9	244.9	309.6	1.48	2.40	2.11	1.50	0.96
Sri Lanka	8.1	18.8	20.7	21.5	20.8	1.79	0.58	0.50	0.11	-0.36
<b>Oceania</b>	<b>12.7</b>	<b>31.1</b>	<b>39.3</b>	<b>47.4</b>	<b>56.6</b>	<b>2.23</b>	<b>1.34</b>	<b>1.54</b>	<b>1.12</b>	<b>0.79</b>
Australia	8.2	19.1	24.0	28.5	33.5	2.39	1.06	1.57	1.01	0.75
Cook Islands	0.015	0.018	0.021	0.023	0.024	1.65	-0.53	0.53	0.45	0.18
Fiji	0.3	0.8	0.9	0.9	0.9	2.95	0.90	0.74	0.20	-0.26
Kiribati	0.033	0.084	0.112	0.142	0.178	2.04	1.65	1.82	1.36	1.08
Marshall Islands	0.013	0.052	0.053	0.056	0.067	1.34	0.44	0.21	0.69	0.47
Micronesia (Federated States of)	0.032	0.107	0.104	0.118	0.129	3.38	-0.02	0.16	0.92	0.29
Nauru	0.003	0.010	0.010	0.011	0.011	4.08	0.14	0.39	0.21	-0.24
New Zealand	1.9	3.9	4.5	5.1	5.6	2.26	0.97	0.72	0.72	0.35
Niue	0.005	0.002	0.002	0.002	0.002	0.10	-2.63	-0.14	0.51	0.24
Palau	0.007	0.019	0.021	0.025	0.028	2.09	2.11	0.79	0.94	0.43
Papua New Guinea	1.7	5.4	7.6	10.1	13.2	1.28	2.61	2.14	1.72	1.17
Samoa	0.1	0.2	0.2	0.2	0.2	2.75	0.52	0.76	0.56	0.46
Solomon Islands	0.1	0.4	0.6	0.8	1.0	2.56	2.76	2.07	1.63	1.15
Tokelau	0.002	0.002	0.001	0.001	0.002	0.50	0.42	1.93	0.63	0.48
Tonga	0.047	0.098	0.106	0.121	0.140	3.17	0.42	0.42	0.89	0.51
Tuvalu	0.005	0.009	0.010	0.011	0.011	1.48	0.41	0.18	0.63	-0.06
Vanuatu	0.048	0.185	0.265	0.354	0.476	2.82	1.91	2.27	1.79	1.28
<b>Asia-Pacific</b>	<b>1337.6</b>	<b>3505.5</b>	<b>4108.1</b>	<b>4569.8</b>	<b>4839.3</b>	<b>1.89</b>	<b>1.31</b>	<b>0.99</b>	<b>0.56</b>	<b>0.13</b>
<b>Europe</b>	<b>549.1</b>	<b>726.4</b>	<b>738.4</b>	<b>733.9</b>	<b>706.8</b>	<b>0.98</b>	<b>-0.04</b>	<b>0.08</b>	<b>-0.11</b>	<b>-0.21</b>
<b>Latin America and the Caribbean</b>	<b>168.8</b>	<b>526.9</b>	<b>634.4</b>	<b>721.1</b>	<b>784.2</b>	<b>2.70</b>	<b>1.56</b>	<b>1.12</b>	<b>0.72</b>	<b>0.26</b>
<b>North America</b>	<b>171.6</b>	<b>313.7</b>	<b>357.8</b>	<b>396.3</b>	<b>433.1</b>	<b>1.67</b>	<b>1.18</b>	<b>0.78</b>	<b>0.62</b>	<b>0.38</b>
<b>Sub-Saharan Africa</b>	<b>179.7</b>	<b>642.2</b>	<b>962.3</b>	<b>1396.9</b>	<b>2123.2</b>	<b>1.97</b>	<b>2.63</b>	<b>2.71</b>	<b>2.38</b>	<b>1.90</b>
<b>World</b>	<b>2525.1</b>	<b>6126.6</b>	<b>7349.5</b>	<b>8500.8</b>	<b>9725.1</b>	<b>1.77</b>	<b>1.32</b>	<b>1.18</b>	<b>0.86</b>	<b>0.57</b>

**TABLE 8:**  
**Fertility rate and crude death rate**

Major area, region or country	Total fertility (children per woman)					Crude death rate (deaths per 1,000 population)				
	1950-1955	1995-2000	2010-2015	2025-2030	2045-2050	1950-1955	1995-2000	2010-2015	2025-2030	2045-2050
<b>East Asia</b>	<b>5.60</b>	<b>1.48</b>	<b>1.55</b>	<b>1.63</b>	<b>1.73</b>	21.0	6.6	7.2	8.9	12.6
China	6.11	1.48	1.55	1.66	1.74	23.1	6.5	7.0	8.6	12.5
Democratic People's Republic of Korea	3.46	2.01	2.00	1.87	1.82	23.2	9.4	9.2	10.0	12.2
Hong Kong, China (SAR)	4.44	0.87	1.20	1.44	1.63	7.6	5.3	6.0	7.8	11.8
Japan	3.00	1.37	1.40	1.57	1.69	9.4	7.5	10.0	12.6	14.2
Macao, China (SAR)	4.39	1.12	1.19	1.54	1.74	10.4	4.9	4.8	5.6	9.6
Mongolia	5.60	2.40	2.68	2.33	2.10	21.7	8.3	6.2	6.6	8.1
Republic of Korea	5.05	1.51	1.26	1.45	1.60	16.4	5.4	5.5	7.6	12.3
Taiwan Province of China	5.90	1.73	1.07	1.15	1.45	9.9	5.8	6.9	8.8	14.1
<b>South-east Asia</b>	<b>5.92</b>	<b>2.69</b>	<b>2.35</b>	<b>2.10</b>	<b>1.94</b>	<b>19.1</b>	<b>6.9</b>	<b>6.9</b>	<b>7.7</b>	<b>10.0</b>
Brunei Darussalam	7.00	2.60	1.90	1.72	1.69	12.7	3.2	3.0	4.1	7.8
Cambodia	6.95	4.25	2.70	2.27	1.97	23.2	10.6	6.3	5.4	6.4
Indonesia	5.49	2.55	2.50	2.14	1.91	21.4	7.2	7.2	7.9	10.4
Lao People's Democratic Republic	5.94	4.81	3.10	2.34	1.89	22.2	10.7	7.0	5.5	6.0
Malaysia	6.23	3.18	1.97	1.79	1.72	14.4	4.5	4.8	6.0	8.2
Myanmar	6.00	2.95	2.25	1.95	1.79	28.3	9.3	8.3	9.2	11.7
Philippines	7.42	3.90	3.04	2.59	2.20	13.3	6.2	6.7	7.2	8.4
Singapore	6.61	1.57	1.23	1.31	1.38	9.0	4.6	4.5	6.7	11.3
Thailand	6.14	1.77	1.53	1.43	1.58	15.5	6.7	7.7	10.0	14.5
Timor-Leste	6.44	7.01	5.91	4.30	2.99	34.2	11.6	7.0	5.5	4.5
Viet Nam	5.40	2.25	1.96	1.93	1.92	14.6	5.6	5.8	6.6	9.3
<b>South Asia</b>	<b>6.04</b>	<b>3.61</b>	<b>2.56</b>	<b>2.18</b>	<b>1.93</b>	<b>26.7</b>	<b>8.8</b>	<b>7.1</b>	<b>7.1</b>	<b>8.5</b>
Afghanistan	7.45	7.65	5.13	3.02	2.09	36.9	12.8	8.6	6.7	7.0
Bangladesh	6.36	3.43	2.23	1.84	1.67	24.8	7.5	5.5	5.4	7.9
Bhutan	6.67	4.13	2.10	1.69	1.59	34.6	9.9	6.3	6.6	8.8
India	5.90	3.48	2.48	2.14	1.89	26.8	9.1	7.4	7.5	8.8
Iran (Islamic Republic of)	6.91	2.63	1.75	1.49	1.61	26.8	5.3	4.7	5.4	9.3
Maldives	6.03	3.52	2.18	1.72	1.67	27.7	5.5	3.8	4.0	6.5
Nepal	5.96	4.41	2.32	1.85	1.69	28.7	9.4	6.5	8.1	7.0
Pakistan	6.60	4.99	3.72	2.88	2.31	27.4	9.2	7.5	6.8	7.6
Sri Lanka	5.80	2.24	2.11	1.90	1.80	18.9	7.7	6.7	8.3	11.0
<b>Oceania</b>	<b>3.84</b>	<b>2.45</b>	<b>2.42</b>	<b>2.24</b>	<b>2.06</b>	<b>12.3</b>	<b>7.4</b>	<b>6.9</b>	<b>7.1</b>	<b>8.4</b>
Australia	3.18	1.79	1.92	1.81	1.78	9.3	7.0	6.7	7.0	8.3
Cook Islands	-	-	-	-	-	-	-	-	-	-
Fiji	6.63	3.19	2.61	2.27	1.98	14.9	6.0	6.8	8.3	10.1
Kiribati	6.10	4.20	3.79	3.23	2.74	19.5	8.0	7.1	6.9	7.7
Marshall Islands	-	-	-	-	-	-	-	-	-	-
Micronesia (Federated States of)	7.20	4.53	3.33	2.70	2.24	14.2	6.3	6.2	6.4	6.7
Nauru	-	-	-	-	-	-	-	-	-	-
New Zealand	3.69	1.95	2.05	1.90	1.82	9.2	7.5	6.8	7.4	9.6
Niue	-	-	-	-	-	-	-	-	-	-
Palau	-	-	-	-	-	-	-	-	-	-
Papua New Guinea	6.24	4.64	3.84	3.17	2.63	29.6	9.5	7.7	7.6	8.2
Samoa	7.63	4.62	4.16	3.46	2.86	18.0	6.3	5.4	5.4	5.9
Solomon Islands	6.40	4.91	4.06	3.29	2.68	17.7	8.4	5.9	5.3	6.0
Tokelau	-	-	-	-	-	-	-	-	-	-
Tonga	7.30	4.29	3.79	3.22	2.72	9.3	6.2	6.1	5.7	6.2
Tuvalu	-	-	-	-	-	-	-	-	-	-
Vanuatu	7.60	4.59	3.41	2.90	2.45	22.4	6.8	4.8	4.8	5.4
<b>Europe</b>	<b>2.66</b>	<b>1.43</b>	<b>1.60</b>	<b>1.69</b>	<b>1.79</b>	<b>11.2</b>	<b>11.6</b>	<b>11.1</b>	<b>11.9</b>	<b>13.4</b>
<b>Latin America and the Caribbean</b>	<b>5.89</b>	<b>2.75</b>	<b>2.15</b>	<b>1.90</b>	<b>1.78</b>	<b>15.7</b>	<b>6.1</b>	<b>5.9</b>	<b>6.5</b>	<b>8.3</b>
<b>North America</b>	<b>3.35</b>	<b>1.95</b>	<b>1.86</b>	<b>1.88</b>	<b>1.90</b>	<b>9.6</b>	<b>8.5</b>	<b>8.1</b>	<b>8.9</b>	<b>10.4</b>
<b>Sub-Saharan Africa</b>	<b>6.56</b>	<b>5.91</b>	<b>5.10</b>	<b>4.13</b>	<b>3.23</b>	<b>27.8</b>	<b>15.6</b>	<b>10.6</b>	<b>8.0</b>	<b>6.4</b>
<b>World</b>	<b>4.96</b>	<b>2.74</b>	<b>2.51</b>	<b>2.38</b>	<b>2.25</b>	<b>19.2</b>	<b>8.7</b>	<b>7.8</b>	<b>8.0</b>	<b>9.2</b>

**TABLE 9:**  
**Median age of the population and dependency rate**

Major area, region or country						Demographic transition				
	Median age of population (years)					Total dependency ratio, aged 0-14 and 65+ per 100 people aged 15-64				
	1950	2000	2015	2030	2050	1950	2000	2015	2030	2050
<b>East Asia</b>	<b>23.2</b>	<b>30.6</b>	<b>37.9</b>	<b>43.7</b>	<b>49.9</b>	<b>64.9</b>	<b>46.2</b>	<b>38.6</b>	<b>49.3</b>	<b>71.7</b>
China	23.7	29.8	37.0	43.2	49.6	63.4	46.4	36.6	47.1	69.7
Democratic People's Republic of Korea	18.0	29.5	33.9	37.3	41.0	86.9	46.9	44.3	46.5	54.4
Hong Kong, China (SAR)	23.7	36.5	43.2	48.6	52.7	48.9	39.3	37.0	66.1	87.1
Japan	22.3	41.3	46.5	51.5	53.3	67.6	46.6	64.5	74.4	95.1
Macao, China (SAR)	26.5	33.1	37.9	43.7	47.0	42.8	43.3	28.2	54.3	69.0
Mongolia	25.0	22.0	27.3	31.2	35.4	57.4	62.5	47.6	49.8	57.1
Republic of Korea	19.0	32.1	40.6	47.5	53.9	83.0	39.5	37.2	58.5	87.2
Taiwan Province of China	19.1	31.8	39.7	48.1	56.2	77.2	42.5	34.8	54.0	90.3
<b>South-east Asia</b>	<b>20.5</b>	<b>24.2</b>	<b>28.8</b>	<b>33.1</b>	<b>37.6</b>	<b>73.8</b>	<b>57.9</b>	<b>48.1</b>	<b>48.6</b>	<b>54.1</b>
Brunei Darussalam	22.4	25.6	30.6	37.8	45.4	70.4	49.1	38.0	42.7	63.7
Cambodia	18.7	18.1	23.9	28.6	34.5	81.6	80.8	55.6	52.0	52.8
Indonesia	20.0	24.4	28.4	31.9	36.5	75.8	54.8	49.0	46.9	51.6
Lao People's Democratic Republic	19.8	18.1	21.9	26.4	33.7	74.2	88.3	62.8	52.4	45.3
Malaysia	19.8	23.8	28.5	34.5	40.5	85.0	59.1	43.6	46.1	50.8
Myanmar	22.4	23.5	27.9	32.4	38.0	62.2	57.9	49.1	44.4	47.3
Philippines	18.2	20.5	24.2	27.7	32.0	89.3	71.6	57.6	53.9	50.1
Singapore	20.0	34.1	40.0	47.0	53.0	75.0	40.4	37.4	56.3	81.6
Thailand	18.6	30.2	38.0	44.8	50.6	83.1	44.0	39.2	50.2	74.7
Timor-Leste	19.6	15.0	18.5	19.2	24.3	78.2	109.6	92.3	79.5	81.5
Viet Nam	24.5	24.2	30.4	37.0	41.9	56.5	61.5	42.5	48.2	62.0
<b>South Asia</b>	<b>21.0</b>	<b>22.0</b>	<b>26.1</b>	<b>30.6</b>	<b>36.7</b>	<b>71.2</b>	<b>66.8</b>	<b>53.7</b>	<b>48.2</b>	<b>49.4</b>
Afghanistan	19.4	15.7	17.5	22.5	29.8	78.2	103.3	87.0	59.1	44.0
Bangladesh	19.3	20.9	25.6	31.5	39.6	82.3	69.2	52.5	43.6	48.7
Bhutan	18.0	19.1	26.7	33.7	41.9	86.5	79.9	46.9	40.2	50.1
India	21.3	22.7	26.6	31.2	37.3	68.4	64.3	52.4	47.8	49.0
Iran (Islamic Republic of)	21.9	20.8	29.5	38.3	44.7	71.1	64.4	40.2	38.1	58.6
Maldives	18.6	18.6	26.4	33.9	41.4	81.1	79.9	47.4	42.2	51.4
Nepal	20.5	19.3	23.1	29.3	38.9	68.1	81.1	61.8	47.1	42.8
Pakistan	19.8	19.2	22.5	25.5	30.9	84.9	82.5	65.3	56.7	50.2
Sri Lanka	21.6	27.6	32.3	37.0	42.5	92.9	49.2	51.2	54.0	66.9
<b>Oceania</b>	<b>27.9</b>	<b>30.8</b>	<b>32.9</b>	<b>35.1</b>	<b>37.4</b>	<b>59.3</b>	<b>55.3</b>	<b>54.8</b>	<b>60.4</b>	<b>61.9</b>
Australia	30.4	35.4	37.5	39.8	41.4	53.3	49.7	50.9	61.3	65.7
Cook Islands	-	-	-	-	-	-	-	-	-	-
Fiji	16.6	22.1	27.6	30.5	35.4	97.9	62.5	52.8	53.1	55.7
Kiribati	19.2	19.7	22.4	24.2	28.4	80.0	76.3	63.0	61.7	56.5
Marshall Islands	-	-	-	-	-	-	-	-	-	-
Micronesia (Federated States of)	19.8	18.9	21.5	25.6	30.9	80.1	78.7	62.4	60.1	44.4
Nauru	-	-	-	-	-	-	-	-	-	-
New Zealand	29.4	34.3	38.0	40.0	43.0	61.4	52.7	54.0	64.8	68.8
Niue	-	-	-	-	-	-	-	-	-	-
Palau	-	-	-	-	-	-	-	-	-	-
Papua New Guinea	20.3	19.6	21.2	24.3	28.2	76.9	74.5	67.1	57.4	51.9
Samoa	16.6	19.5	21.2	24.0	28.5	96.7	82.5	74.0	65.9	64.8
Solomon Islands	18.3	18.7	19.9	23.2	27.9	80.3	81.0	75.1	60.1	55.7
Tokelau	-	-	-	-	-	-	-	-	-	-
Tonga	15.5	20.0	21.3	24.6	28.4	102.7	78.7	74.3	61.6	60.3
Tuvalu	-	-	-	-	-	-	-	-	-	-
Vanuatu	16.8	18.9	22.2	25.2	30.2	96.0	81.2	68.7	60.8	56.9
<b>Europe</b>	<b>28.9</b>	<b>37.7</b>	<b>41.7</b>	<b>45.1</b>	<b>46.2</b>	<b>52.23</b>	<b>47.56</b>	<b>49.97</b>	<b>62.07</b>	<b>74.57</b>
<b>Latin America and the Caribbean</b>	<b>19.9</b>	<b>24.3</b>	<b>29.2</b>	<b>34.5</b>	<b>41.2</b>	<b>78.10</b>	<b>60.06</b>	<b>49.99</b>	<b>49.56</b>	<b>57.81</b>
<b>North America</b>	<b>29.8</b>	<b>35.4</b>	<b>38.3</b>	<b>40.4</b>	<b>42.1</b>	<b>54.86</b>	<b>50.14</b>	<b>50.54</b>	<b>63.68</b>	<b>66.27</b>
<b>Sub-Saharan Africa</b>	<b>19.1</b>	<b>17.6</b>	<b>18.3</b>	<b>20.1</b>	<b>23.7</b>	<b>81.78</b>	<b>90.20</b>	<b>85.58</b>	<b>74.05</b>	<b>62.35</b>
<b>World</b>	<b>23.5</b>	<b>26.3</b>	<b>29.6</b>	<b>33.1</b>	<b>36.1</b>	<b>65.13</b>	<b>58.71</b>	<b>52.31</b>	<b>54.67</b>	<b>59.61</b>

**TABLE 10:**  
**Trends and share of child population, 1950-2050**

Major area, region or country	Population aged (0-14)									
	Number (millions)					Share (%)				
	1950	2000	2015	2030	2050	1950	2000	2015	2030	2050
<b>East Asia</b>	<b>232.7</b>	<b>359.1</b>	<b>270.7</b>	<b>241.3</b>	<b>209.9</b>	<b>35</b>	<b>24</b>	<b>17</b>	<b>15</b>	<b>13</b>
China	186.9	318.3	237.1	209.7	182.1	34	25	17	15	14
Democratic People's Republic of Korea	4.6	5.9	5.3	5.2	4.6	43	26	21	20	17
Hong Kong, China (SAR)	0.6	1.2	0.9	1.1	1.0	30	17	12	14	12
Japan	29.1	18.4	16.3	14.7	13.4	35	15	13	12	12
Macao, China (SAR)	0.1	0.1	0.1	0.1	0.1	27	23	13	16	14
Mongolia	0.3	0.8	0.8	0.9	0.9	33	35	28	25	21
Republic of Korea	8.2	9.7	7.0	6.9	5.8	42	21	14	13	11
Taiwan Province of China	3.1	4.7	3.2	2.6	2.1	41	21	14	11	10
<b>South-east Asia</b>	<b>63.8</b>	<b>167.1</b>	<b>168.2</b>	<b>165.5</b>	<b>154.4</b>	<b>39</b>	<b>32</b>	<b>27</b>	<b>23</b>	<b>19</b>
Brunei Darussalam	0.0	0.1	0.1	0.1	0.1	36	31	23	19	15
Cambodia	1.9	5.1	4.9	5.2	4.9	42	42	32	27	22
Indonesia	27.2	64.9	71.3	69.4	64.5	39	31	28	23	20
Lao People's Democratic Republic	0.7	2.3	2.4	2.5	2.2	40	43	35	29	22
Malaysia	2.5	7.8	7.4	7.8	6.9	41	33	25	22	17
Myanmar	6.1	15.2	14.8	13.3	12.0	35	32	28	22	19
Philippines	8.1	30.0	32.2	35.0	35.2	44	38	32	28	24
Singapore	0.4	0.8	0.9	0.8	0.7	40	21	16	13	11
Thailand	8.7	15.0	12.0	9.5	7.9	42	24	18	14	13
Timor-Leste	0.2	0.4	0.5	0.6	0.7	41	50	42	40	33
Viet Nam	7.9	25.4	21.6	21.2	19.4	32	32	23	20	17
<b>South Asia</b>	<b>187.7</b>	<b>519.1</b>	<b>538.7</b>	<b>526.4</b>	<b>476.3</b>	<b>38</b>	<b>36</b>	<b>30</b>	<b>25</b>	<b>20</b>
Afghanistan	3.2	9.6	14.3	14.9	13.9	41	49	44	34	25
Bangladesh	15.6	48.7	47.4	42.9	34.8	41	37	29	23	17
Bhutan	0.1	0.2	0.2	0.2	0.2	44	41	27	21	16
India	141.1	365.9	377.4	365.0	326.3	37	35	29	24	19
Iran (Islamic Republic of)	6.2	23.0	18.7	15.8	13.8	36	35	24	18	15
Maldives	0.0	0.1	0.1	0.1	0.1	42	41	27	22	17
Nepal	3.3	9.7	9.3	8.2	6.3	39	41	33	25	17
Pakistan	15.1	56.8	66.1	75.1	77.3	40	41	35	31	25
Sri Lanka	3.1	5.0	5.1	4.2	3.6	38	27	25	20	17
<b>Oceania</b>	<b>3.8</b>	<b>8.0</b>	<b>9.2</b>	<b>10.5</b>	<b>11.3</b>	<b>30</b>	<b>26</b>	<b>23</b>	<b>22</b>	<b>20</b>
Australia	2.2	4.0	4.5	5.3	5.7	27	21	19	19	17
Cook Islands	-	-	-	-	-	-	-	-	-	-
Fiji	0.14	0.28	0.26	0.23	0.19	47	35	29	25	21
Kiribati	0.01	0.03	0.04	0.05	0.05	41	40	35	32	28
Marshall Islands	-	-	-	-	-	-	-	-	-	-
Micronesia (Federated States of)	0.01	0.04	0.04	0.04	0.03	40	40	34	31	23
Nauru	-	-	-	-	-	-	-	-	-	-
New Zealand	0.56	0.88	0.92	0.93	0.93	29	23	20	18	17
Niue	-	-	-	-	-	-	-	-	-	-
Palau	-	-	-	-	-	-	-	-	-	-
Papua New Guinea	0.67	2.16	2.83	3.26	3.65	39	40	37	32	28
Samoa	0.04	0.07	0.07	0.07	0.07	47	41	37	31	28
Solomon Islands	0.04	0.17	0.23	0.25	0.28	43	42	39	33	28
Tokelau	-	-	-	-	-	-	-	-	-	-
Tonga	0.02	0.04	0.04	0.04	0.04	49	38	37	31	28
Tuvalu	-	-	-	-	-	-	-	-	-	-
Vanuatu	0.02	0.08	0.10	0.11	0.13	46	41	37	32	26
<b>Asia-Pacific</b>	<b>488.0</b>	<b>1053.3</b>	<b>986.8</b>	<b>943.6</b>	<b>851.9</b>	<b>36</b>	<b>30</b>	<b>24</b>	<b>21</b>	<b>18</b>
<b>Europe</b>	<b>144.6</b>	<b>127.2</b>	<b>116.2</b>	<b>111.7</b>	<b>107.0</b>	<b>26</b>	<b>18</b>	<b>16</b>	<b>15</b>	<b>15</b>
<b>Latin America and the Caribbean</b>	<b>68.0</b>	<b>168.4</b>	<b>163.2</b>	<b>152.3</b>	<b>134.0</b>	<b>40</b>	<b>32</b>	<b>26</b>	<b>21</b>	<b>17</b>
<b>North America</b>	<b>46.7</b>	<b>66.1</b>	<b>66.7</b>	<b>71.1</b>	<b>74.5</b>	<b>27</b>	<b>21</b>	<b>19</b>	<b>18</b>	<b>17</b>
<b>Sub-Saharan Africa</b>	<b>75.1</b>	<b>285.2</b>	<b>414.0</b>	<b>546.3</b>	<b>711.1</b>	<b>42</b>	<b>44</b>	<b>43</b>	<b>39</b>	<b>33</b>
<b>World</b>	<b>867.3</b>	<b>1847.5</b>	<b>1915.8</b>	<b>2009.8</b>	<b>2072.9</b>	<b>34</b>	<b>30</b>	<b>26</b>	<b>24</b>	<b>21</b>

**TABLE 11:**  
**Trends and share of youth population, 1950-2050**

Major area, region or country	Population aged (15-24)									
	Number (millions)					Share (%)				
	1950	2000	2015	2030	2050	1950	2000	2015	2030	2050
<b>East Asia</b>	<b>120.6</b>	<b>231.1</b>	<b>212.4</b>	<b>182.6</b>	<b>143.6</b>	<b>18</b>	<b>15</b>	<b>13</b>	<b>11</b>	<b>9</b>
China	97.1	198.9	185.1	160.5	123.2	18	16	13	11	9
Democratic People's Republic of Korea	2.1	3.4	4.0	3.4	3.3	20	15	16	13	12
Hong Kong, China (SAR)	0.4	0.9	0.8	0.7	0.7	23	13	11	9	9
Japan	16.1	15.9	12.1	10.8	9.4	20	13	10	9	9
Macao, China (SAR)	0.0	0.1	0.1	0.1	0.1	20	15	13	9	10
Mongolia	0.1	0.5	0.5	0.6	0.5	17	21	17	17	13
Republic of Korea	3.3	7.6	6.8	4.6	4.6	17	16	13	9	9
Taiwan Province of China	1.5	3.9	3.1	1.9	1.7	20	18	13	8	8
<b>South-east Asia</b>	<b>32.2</b>	<b>104.1</b>	<b>109.4</b>	<b>110.7</b>	<b>105.4</b>	<b>20</b>	<b>20</b>	<b>17</b>	<b>15</b>	<b>13</b>
Brunei Darussalam	0.0	0.1	0.1	0.1	0.1	18	18	17	13	11
Cambodia	0.9	2.4	3.2	3.3	3.2	19	20	21	17	14
Indonesia	13.9	43.2	43.9	47.0	44.2	20	20	17	16	14
Lao People's Democratic Republic	0.3	1.1	1.5	1.6	1.5	19	20	22	19	15
Malaysia	1.1	4.4	5.7	4.9	5.1	18	19	19	14	13
Myanmar	3.5	10.0	9.6	9.4	8.7	20	21	18	16	14
Philippines	3.3	15.4	19.7	21.5	23.3	18	20	20	17	16
Singapore	0.2	0.5	0.7	0.6	0.6	18	13	13	10	9
Thailand	4.2	10.8	9.0	7.3	5.4	20	17	13	11	9
Timor-Leste	0.1	0.1	0.2	0.3	0.4	20	16	20	21	19
Viet Nam	4.7	16.0	15.8	14.7	12.8	19	20	17	14	11
<b>South Asia</b>	<b>95.0</b>	<b>286.9</b>	<b>339.3</b>	<b>353.4</b>	<b>334.3</b>	<b>19</b>	<b>20</b>	<b>19</b>	<b>16</b>	<b>14</b>
Afghanistan	1.5	3.8	6.9	9.4	9.6	19	19	21	21	17
Bangladesh	7.1	27.5	31.3	30.1	25.7	19	21	19	16	13
Bhutan	0.0	0.1	0.2	0.1	0.1	19	21	20	15	12
India	72.9	204.5	241.5	246.3	233.9	19	19	18	16	14
Iran (Islamic Republic of)	3.3	15.6	12.6	13.1	8.7	19	24	16	15	9
Maldives	0.0	0.1	0.1	0.1	0.1	21	22	19	16	11
Nepal	1.7	4.6	6.0	5.7	4.7	20	20	21	17	13
Pakistan	7.0	27.0	37.6	45.5	49.1	19	20	20	19	16
Sri Lanka	1.4	3.6	3.1	3.2	2.5	18	19	15	15	12
<b>Oceania</b>	<b>2.0</b>	<b>4.7</b>	<b>5.9</b>	<b>6.8</b>	<b>7.5</b>	<b>16</b>	<b>15</b>	<b>15</b>	<b>14</b>	<b>13</b>
Australia	1.2	2.6	3.2	3.6	4.0	15	13	13	13	12
Cook Islands	-	-	-	-	-	-	-	-	-	-
Fiji	0.1	0.2	0.2	0.2	0.1	19	20	17	17	15
Kiribati	0.007	0.016	0.022	0.027	0.029	21	19	20	19	16
Marshall Islands	-	-	-	-	-	-	-	-	-	-
Micronesia (Federated States of)	0.006	0.023	0.025	0.021	0.022	19	21	24	18	17
Nauru	-	-	-	-	-	-	-	-	-	-
New Zealand	0.3	0.5	0.6	0.6	0.6	14	14	14	13	12
Niue	-	-	-	-	-	-	-	-	-	-
Palau	-	-	-	-	-	-	-	-	-	-
Papua New Guinea	0.3	1.1	1.5	1.9	2.3	19	20	20	19	17
Samoa	0.016	0.032	0.038	0.043	0.041	19	18	19	21	17
Solomon Islands	0.018	0.087	0.115	0.153	0.172	20	21	20	20	17
Tokelau	-	-	-	-	-	-	-	-	-	-
Tonga	0.009	0.021	0.021	0.024	0.025	20	21	20	20	18
Tuvalu	-	-	-	-	-	-	-	-	-	-
Vanuatu	0.009	0.037	0.048	0.064	0.075	19	20	18	18	16
<b>Asia-Pacific</b>	<b>249.8</b>	<b>626.8</b>	<b>667.0</b>	<b>653.5</b>	<b>590.9</b>	<b>19</b>	<b>18</b>	<b>16</b>	<b>14</b>	<b>12</b>
<b>Europe</b>	<b>95.8</b>	<b>100.8</b>	<b>81.1</b>	<b>81.0</b>	<b>71.6</b>	<b>17</b>	<b>14</b>	<b>11</b>	<b>11</b>	<b>10</b>
<b>Latin America and the Caribbean</b>	<b>31.9</b>	<b>102.4</b>	<b>109.9</b>	<b>105.3</b>	<b>95.5</b>	<b>19</b>	<b>19</b>	<b>17</b>	<b>15</b>	<b>12</b>
<b>North America</b>	<b>25.7</b>	<b>43.9</b>	<b>48.6</b>	<b>48.4</b>	<b>51.7</b>	<b>15</b>	<b>14</b>	<b>14</b>	<b>12</b>	<b>12</b>
<b>Sub-Saharan Africa</b>	<b>33.9</b>	<b>127.9</b>	<b>190.2</b>	<b>281.2</b>	<b>398.8</b>	<b>19</b>	<b>20</b>	<b>20</b>	<b>20</b>	<b>19</b>
<b>World</b>	<b>460.4</b>	<b>1084.6</b>	<b>1193.6</b>	<b>1286.3</b>	<b>1330.2</b>	<b>18</b>	<b>18</b>	<b>16</b>	<b>15</b>	<b>14</b>

**TABLE 12:**  
**Trends and share of young population, 1950-2050**

Major area, region or country	Population aged (0-24)									
	Number (millions)					Share (%)				
	1950	2000	2015	2030	2050	1950	2000	2015	2030	2050
<b>East Asia</b>	<b>353.4</b>	<b>590.2</b>	<b>483.1</b>	<b>423.9</b>	<b>353.6</b>	<b>53</b>	<b>39</b>	<b>30</b>	<b>26</b>	<b>23</b>
China	283.9	517.2	422.2	370.2	305.4	52	41	31	26	23
Democratic People's Republic of Korea	6.6	9.4	9.3	8.7	7.9	63	41	37	32	29
Hong Kong, China (SAR)	1.0	2.1	1.7	1.8	1.7	53	31	23	22	21
Japan	45.2	34.3	28.3	25.4	22.8	55	27	22	21	21
Macao, China (SAR)	0.1	0.2	0.2	0.2	0.2	47	37	26	25	24
Mongolia	0.4	1.3	1.3	1.5	1.4	50	56	45	43	35
Republic of Korea	11.4	17.3	13.8	11.6	10.4	60	37	27	22	21
Taiwan Province of China	4.6	8.5	6.3	4.5	3.7	61	39	27	20	18
<b>South-east Asia</b>	<b>96.0</b>	<b>271.2</b>	<b>277.6</b>	<b>276.2</b>	<b>259.9</b>	<b>58</b>	<b>52</b>	<b>44</b>	<b>38</b>	<b>33</b>
Brunei Darussalam	0.03	0.16	0.17	0.16	0.14	54	49	40	32	25
Cambodia	2.7	7.5	8.1	8.5	8.1	62	61	52	45	36
Indonesia	41.2	108.1	115.3	116.4	108.7	59	51	45	39	34
Lao People's Democratic Republic	1.0	3.4	3.9	4.1	3.7	60	63	57	48	37
Malaysia	3.6	12.2	13.1	12.7	12.0	59	52	43	35	29
Myanmar	9.6	25.3	24.5	22.7	20.6	55	53	45	38	32
Philippines	11.4	45.4	51.9	56.5	58.5	62	58	52	46	39
Singapore	0.6	1.3	1.6	1.4	1.3	58	34	29	23	20
Thailand	12.9	25.8	21.0	16.9	13.4	62	41	31	25	21
Timor-Leste	0.3	0.6	0.7	1.0	1.1	60	66	62	60	51
Viet Nam	12.6	41.4	37.4	36.0	32.3	51	52	40	34	29
<b>South Asia</b>	<b>282.7</b>	<b>806.0</b>	<b>878.0</b>	<b>879.8</b>	<b>810.5</b>	<b>57</b>	<b>56</b>	<b>48</b>	<b>41</b>	<b>33</b>
Afghanistan	4.7	13.3	21.2	24.3	23.5	60	68	65	55	42
Bangladesh	22.8	76.2	78.8	72.9	60.4	60	58	49	39	30
Bhutan	0.1	0.3	0.4	0.3	0.3	63	62	46	36	28
India	214.0	570.4	619.0	611.3	560.2	57	54	47	40	33
Iran (Islamic Republic of)	9.5	38.7	31.2	29.0	22.4	56	59	39	33	24
Maldives	0.0	0.2	0.2	0.2	0.1	63	62	47	38	27
Nepal	5.0	14.4	15.3	13.8	11.0	59	61	54	42	31
Pakistan	22.2	83.9	103.8	120.5	126.4	59	61	55	49	41
Sri Lanka	4.5	8.6	8.2	7.4	6.1	56	46	40	34	29
<b>Oceania</b>	<b>5.8</b>	<b>12.7</b>	<b>15.1</b>	<b>17.3</b>	<b>18.9</b>	<b>45</b>	<b>41</b>	<b>38</b>	<b>36</b>	<b>33</b>
Australia	3.4	6.6	7.6	8.9	9.7	41	34	32	31	29
Cook Islands	-	-	-	-	-	-	-	-	-	-
Fiji	0.2	0.5	0.4	0.4	0.3	66	55	46	42	36
Kiribati	0.02	0.05	0.06	0.07	0.08	62	59	55	51	45
Marshall Islands	-	-	-	-	-	-	-	-	-	-
Micronesia (Federated States of)	0.02	0.07	0.06	0.06	0.05	59	62	58	49	41
Nauru	-	-	-	-	-	-	-	-	-	-
New Zealand	0.8	1.4	1.5	1.6	1.6	43	36	34	31	28
Niue	-	-	-	-	-	-	-	-	-	-
Palau	-	-	-	-	-	-	-	-	-	-
Papua New Guinea	1.0	3.3	4.3	5.2	5.9	59	61	57	51	45
Samoa	0.05	0.10	0.11	0.11	0.11	66	59	57	52	45
Solomon Islands	0.06	0.26	0.35	0.40	0.45	62	63	59	53	46
Tokelau	-	-	-	-	-	-	-	-	-	-
Tonga	0.03	0.06	0.06	0.06	0.06	68	59	57	51	45
Tuvalu	-	-	-	-	-	-	-	-	-	-
Vanuatu	0.03	0.11	0.15	0.18	0.20	66	61	55	50	42
<b>Asia-Pacific</b>	<b>737.8</b>	<b>1680.2</b>	<b>1653.8</b>	<b>1597.2</b>	<b>1442.8</b>	<b>55</b>	<b>48</b>	<b>40</b>	<b>35</b>	<b>30</b>
<b>Europe</b>	<b>240.4</b>	<b>228.0</b>	<b>197.4</b>	<b>192.7</b>	<b>178.6</b>	<b>44</b>	<b>31</b>	<b>27</b>	<b>26</b>	<b>25</b>
<b>Latin America and the Caribbean</b>	<b>99.9</b>	<b>270.8</b>	<b>273.0</b>	<b>257.7</b>	<b>229.5</b>	<b>59</b>	<b>51</b>	<b>43</b>	<b>36</b>	<b>29</b>
<b>North America</b>	<b>72.4</b>	<b>109.9</b>	<b>115.4</b>	<b>119.5</b>	<b>126.2</b>	<b>42</b>	<b>35</b>	<b>32</b>	<b>30</b>	<b>29</b>
<b>Sub-Saharan Africa</b>	<b>109.0</b>	<b>413.0</b>	<b>604.2</b>	<b>827.5</b>	<b>1109.9</b>	<b>61</b>	<b>64</b>	<b>63</b>	<b>59</b>	<b>52</b>
<b>World</b>	<b>1327.7</b>	<b>2932.1</b>	<b>3109.4</b>	<b>3296.1</b>	<b>3403.1</b>	<b>53</b>	<b>48</b>	<b>42</b>	<b>39</b>	<b>35</b>

**TABLE 13:**  
**Trends and share of working-age population, 1950-2050**

Major area, region or country	Population aged (15-64)									
	Number (millions)					Share (%)				
	1950	2000	2015	2030	2050	1950	2000	2015	2030	2050
<b>East Asia</b>	<b>404.4</b>	<b>1023.6</b>	<b>1163.7</b>	<b>1105.5</b>	<b>912.4</b>	<b>61</b>	<b>68</b>	<b>72</b>	<b>67</b>	<b>58</b>
China	332.9	867.2	1007.5	962.6	794.5	61	68	73	68	59
Democratic People's Republic of Korea	5.6	15.5	17.4	18.2	17.4	54	68	69	68	65
Hong Kong, China (SAR)	1.3	4.9	5.3	4.8	4.4	67	72	73	60	53
Japan	49.1	85.7	77.0	68.9	55.1	60	68	61	57	51
Macao, China (SAR)	0.1	0.3	0.5	0.5	0.5	70	70	78	65	59
Mongolia	0.5	1.5	2.0	2.3	2.6	64	62	68	67	64
Republic of Korea	10.5	33.1	36.7	33.1	27.0	55	72	73	63	53
Taiwan Province of China	4.3	15.4	17.4	15.0	10.9	56	70	74	65	53
<b>South-east Asia</b>	<b>94.9</b>	<b>333.2</b>	<b>427.7</b>	<b>487.7</b>	<b>513.9</b>	<b>58</b>	<b>63</b>	<b>68</b>	<b>67</b>	<b>65</b>
Brunei Darussalam	0.03	0.22	0.31	0.35	0.33	59	67	72	70	61
Cambodia	2.4	6.7	10.0	12.5	14.8	55	55	64	66	65
Indonesia	39.5	136.7	172.9	201.1	212.5	57	65	67	68	66
Lao People's Democratic Republic	1.0	2.8	4.2	5.6	7.0	57	53	61	66	69
Malaysia	3.3	14.7	21.1	24.7	27.0	54	63	70	68	66
Myanmar	10.8	30.2	36.2	41.7	43.1	62	63	67	69	68
Philippines	9.8	45.4	63.9	80.3	98.8	53	58	63	65	67
Singapore	0.6	2.8	4.1	4.1	3.7	57	71	73	64	55
Thailand	11.3	43.5	48.8	45.4	35.7	55	69	72	67	57
Timor-Leste	0.2	0.4	0.6	0.9	1.3	56	48	52	56	62
Viet Nam	15.9	49.7	65.6	71.0	69.6	64	62	70	67	62
<b>South Asia</b>	<b>288.2</b>	<b>870.4</b>	<b>1185.8</b>	<b>1448.5</b>	<b>1622.6</b>	<b>58</b>	<b>60</b>	<b>65</b>	<b>67</b>	<b>67</b>
Afghanistan	4.3	9.7	17.4	27.6	38.9	56	49	53	63	69
Bangladesh	20.8	77.6	105.6	129.8	136.0	55	59	66	70	67
Bhutan	0.1	0.3	0.5	0.6	0.6	54	56	68	71	67
India	223.4	641.2	860.0	1033.3	1144.6	59	61	66	68	67
Iran (Islamic Republic of)	10.0	40.1	56.4	64.1	58.1	58	61	71	72	63
Maldives	0.0	0.2	0.2	0.3	0.3	55	56	68	70	66
Nepal	5.0	13.1	17.6	22.5	25.3	60	55	62	68	70
Pakistan	20.3	75.8	114.3	156.3	206.2	54	55	60	64	67
Sri Lanka	4.2	12.6	13.7	14.0	12.5	52	67	66	65	60
<b>Oceania</b>	<b>8.0</b>	<b>20.0</b>	<b>25.4</b>	<b>29.5</b>	<b>35.0</b>	<b>63</b>	<b>64</b>	<b>65</b>	<b>62</b>	<b>62</b>
Australia	5.3	12.8	15.9	17.7	20.2	65	67	66	62	60
Cook Islands	-	-	-	-	-	-	-	-	-	-
Fiji	0.1	0.5	0.6	0.6	0.6	51	62	65	65	64
Kiribati	0.02	0.05	0.07	0.09	0.11	56	57	61	62	64
Marshall Islands	-	-	-	-	-	-	-	-	-	-
Micronesia (Federated States of)	0.02	0.06	0.06	0.07	0.09	56	56	62	62	69
Nauru	-	-	-	-	-	-	-	-	-	-
New Zealand	1.2	2.5	2.9	3.1	3.3	62	65	65	61	59
Niue	-	-	-	-	-	-	-	-	-	-
Palau	-	-	-	-	-	-	-	-	-	-
Papua New Guinea	1.0	3.1	4.6	6.4	8.7	57	57	60	64	66
Samoa	0.04	0.10	0.11	0.13	0.15	51	55	57	60	61
Solomon Islands	0.05	0.23	0.33	0.47	0.64	55	55	57	62	64
Tokelau	-	-	-	-	-	-	-	-	-	-
Tonga	0.02	0.05	0.06	0.07	0.09	49	56	57	62	62
Tuvalu	-	-	-	-	-	-	-	-	-	-
Vanuatu	0.02	0.10	0.16	0.22	0.30	51	55	59	62	64
<b>Asia-Pacific</b>	<b>795.5</b>	<b>2247.3</b>	<b>2802.6</b>	<b>3071.2</b>	<b>3083.9</b>	<b>59</b>	<b>64</b>	<b>68</b>	<b>67</b>	<b>64</b>
<b>Europe</b>	<b>360.7</b>	<b>492.3</b>	<b>492.4</b>	<b>452.8</b>	<b>404.9</b>	<b>66</b>	<b>68</b>	<b>67</b>	<b>62</b>	<b>57</b>
<b>Latin America and the Caribbean</b>	<b>94.8</b>	<b>329.2</b>	<b>423.0</b>	<b>482.1</b>	<b>497.0</b>	<b>56</b>	<b>62</b>	<b>67</b>	<b>67</b>	<b>63</b>
<b>North America</b>	<b>110.8</b>	<b>209.0</b>	<b>237.7</b>	<b>242.1</b>	<b>260.5</b>	<b>65</b>	<b>67</b>	<b>66</b>	<b>61</b>	<b>60</b>
<b>Sub-Saharan Africa</b>	<b>98.8</b>	<b>337.6</b>	<b>518.5</b>	<b>802.5</b>	<b>1307.8</b>	<b>55</b>	<b>53</b>	<b>54</b>	<b>57</b>	<b>62</b>
<b>World</b>	<b>1529.2</b>	<b>3860.1</b>	<b>4825.5</b>	<b>5496.1</b>	<b>6093.2</b>	<b>61</b>	<b>63</b>	<b>66</b>	<b>65</b>	<b>63</b>

**TABLE 14:**  
**Trends and share of older population, 1950-2050**

Major area, region or country	Population aged (60+)									
	Number (millions)					Share (%)				
	1950	2000	2015	2030	2050	1950	2000	2015	2030	2050
<b>East Asia</b>	<b>49.0</b>	<b>165.8</b>	<b>269.8</b>	<b>435.2</b>	<b>578.4</b>	<b>7</b>	<b>11</b>	<b>17</b>	<b>26</b>	<b>37</b>
China	40.7	125.2	209.2	358.1	491.5	7	10	15	25	36
Democratic People's Republic of Korea	0.5	2.3	3.1	5.2	6.6	5	10	13	19	24
Hong Kong, China (SAR)	0.1	1.0	1.6	2.7	3.3	4	15	22	34	41
Japan	6.3	29.3	41.9	44.8	45.6	8	23	33	37	42
Macao, China (SAR)	0.009	0.041	0.087	0.185	0.289	5	10	15	26	35
Mongolia	0.054	0.135	0.189	0.420	0.849	7	6	6	12	21
Republic of Korea	1.0	5.2	9.3	16.5	21.0	5	11	19	31	42
Taiwan Province of China	0.3	2.6	4.4	7.2	9.2	4	12	19	31	44
<b>South-east Asia</b>	<b>9.9</b>	<b>38.8</b>	<b>59.0</b>	<b>106.4</b>	<b>167.3</b>	<b>6</b>	<b>7</b>	<b>9</b>	<b>15</b>	<b>21</b>
Brunei Darussalam	0.004	0.013	0.032	0.085	0.169	8	4	8	17	31
Cambodia	0.2	0.6	1.1	2.0	4.0	5	5	7	10	18
Indonesia	4.3	15.6	21.2	39.0	61.9	6	7	8	13	19
Lao People's Democratic Republic	0.1	0.3	0.4	0.7	1.5	4	5	6	8	15
Malaysia	0.4	1.4	2.8	5.2	9.6	7	6	9	14	24
Myanmar	1.0	3.4	4.8	8.0	12.0	6	7	9	13	19
Philippines	1.0	4.0	7.3	12.7	20.8	6	5	7	10	14
Singapore	0.0	0.4	1.0	2.0	2.7	4	11	18	31	40
Thailand	1.0	6.2	10.7	18.4	23.2	5	10	16	27	37
Timor-Leste	0.024	0.034	0.085	0.108	0.174	6	4	7	7	8
Viet Nam	1.7	6.9	9.6	18.4	31.4	7	9	10	18	28
<b>South Asia</b>	<b>28.5</b>	<b>97.2</b>	<b>153.5</b>	<b>256.2</b>	<b>460.1</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>12</b>	<b>19</b>
Afghanistan	0.4	0.7	1.3	2.2	5.0	5	4	4	5	9
Bangladesh	2.2	7.9	11.2	21.5	43.5	6	6	7	12	22
Bhutan	0.01	0.03	0.06	0.10	0.23	4	6	7	12	25
India	20.3	72.7	116.6	190.7	330.0	5	7	9	12	19
Iran (Islamic Republic of)	1.4	4.1	6.5	12.7	28.8	8	6	8	14	31
Maldives	0.0	0.0	0.0	0.1	0.1	5	6	7	12	25
Nepal	0.3	1.4	2.5	3.6	6.5	4	6	9	11	18
Pakistan	2.9	8.6	12.5	20.7	40.0	8	6	7	8	13
Sri Lanka	1.0	1.7	2.9	4.5	6.0	12	9	14	21	29
<b>Oceania</b>	<b>1.4</b>	<b>4.1</b>	<b>6.5</b>	<b>9.6</b>	<b>13.2</b>	<b>11</b>	<b>13</b>	<b>16</b>	<b>20</b>	<b>23</b>
Australia	1.0	3.2	4.9	7.0	9.5	13	16	20	25	28
Cook Islands	-	-	-	-	-	-	-	-	-	-
Fiji	0.01	0.05	0.08	0.13	0.18	4	6	9	14	20
Kiribati	0.00	0.00	0.01	0.01	0.02	6	5	6	9	12
Marshall Islands	-	-	-	-	-	-	-	-	-	-
Micronesia (Federated States of)	0.00	0.01	0.01	0.01	0.02	6	5	8	9	12
Nauru	-	-	-	-	-	-	-	-	-	-
New Zealand	0.3	0.6	0.9	1.4	1.6	13	16	20	27	29
Niue	-	-	-	-	-	-	-	-	-	-
Palau	-	-	-	-	-	-	-	-	-	-
Papua New Guinea	0.10	0.23	0.39	0.67	1.32	6	4	5	7	10
Samoa	0.00	0.01	0.02	0.03	0.03	4	7	8	12	14
Solomon Islands	0.00	0.02	0.03	0.05	0.11	3	4	5	7	11
Tokelau	-	-	-	-	-	-	-	-	-	-
Tonga	0.00	0.01	0.01	0.01	0.02	3	8	8	11	13
Tuvalu	-	-	-	-	-	-	-	-	-	-
Vanuatu	0.00	0.01	0.02	0.03	0.07	4	5	6	9	14
<b>Asia-Pacific</b>	<b>88.9</b>	<b>306.0</b>	<b>488.8</b>	<b>807.3</b>	<b>1219.0</b>	<b>7</b>	<b>9</b>	<b>12</b>	<b>18</b>	<b>25</b>
<b>Europe</b>	<b>65.1</b>	<b>147.3</b>	<b>176.5</b>	<b>217.2</b>	<b>242.0</b>	<b>12</b>	<b>20</b>	<b>24</b>	<b>30</b>	<b>34</b>
<b>Latin America and the Caribbean</b>	<b>9.6</b>	<b>42.7</b>	<b>70.9</b>	<b>121.0</b>	<b>200.0</b>	<b>6</b>	<b>8</b>	<b>11</b>	<b>17</b>	<b>26</b>
<b>North America</b>	<b>21.3</b>	<b>51.0</b>	<b>74.6</b>	<b>104.8</b>	<b>122.7</b>	<b>12</b>	<b>16</b>	<b>21</b>	<b>26</b>	<b>28</b>
<b>Sub-Saharan Africa</b>	<b>9.4</b>	<b>30.6</b>	<b>46.5</b>	<b>74.5</b>	<b>161.1</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>8</b>
<b>World</b>	<b>202.1</b>	<b>607.1</b>	<b>900.9</b>	<b>1402.4</b>	<b>2092.0</b>	<b>8</b>	<b>10</b>	<b>12</b>	<b>16</b>	<b>22</b>

**TABLE 15:**  
**Trends and share of urban population, 1950-2050**

Major area, region or country	Urbanization									
	Urban population at midyear, number (millions)					% of population residing in urban areas				
	1950	2000	2015	2030	2050	1950	2000	2015	2030	2050
<b>East Asia</b>	<b>119.1</b>	<b>632.4</b>	<b>982.4</b>	<b>1207.8</b>	<b>1250.2</b>	<b>18</b>	<b>42</b>	<b>60</b>	<b>72</b>	<b>78</b>
China	64.2	459.4	779.5	998.9	1049.9	12	36	56	69	76
Democratic People's Republic of Korea	3.3	13.6	15.3	17.3	19.5	31	59	61	65	72
Hong Kong, China (SAR)	1.7	6.8	7.3	7.9	8.0	85	100	100	100	100
Japan	43.9	98.9	118.6	116.9	105.8	53	79	93	97	98
Macao, China (SAR)	0.2	0.4	0.6	0.7	0.8	97	100	100	100	100
Mongolia	0.2	1.4	2.1	2.7	3.2	20	57	72	80	85
Republic of Korea	4.1	36.6	41.0	44.1	44.7	21	80	82	85	88
Taiwan Province of China	1.6	15.3	18.0	19.2	18.3	22	70	77	82	86
<b>South-east Asia</b>	<b>26.1</b>	<b>199.7</b>	<b>301.6</b>	<b>403.3</b>	<b>507.7</b>	<b>16</b>	<b>38</b>	<b>48</b>	<b>56</b>	<b>64</b>
Brunei Darussalam	0.013	0.236	0.331	0.403	0.458	27	71	77	81	84
Cambodia	0.5	2.3	3.2	4.9	8.2	10	19	21	26	36
Indonesia	9.0	87.8	137.4	184.9	227.8	12	42	54	63	71
Lao People's Democratic Republic	0.1	1.2	2.7	4.5	6.4	7	22	39	51	61
Malaysia	1.2	14.5	22.9	30.2	36.2	20	62	75	82	86
Myanmar	2.8	13.1	18.5	25.1	32.2	16	27	34	43	55
Philippines	5.0	37.2	45.2	59.2	88.4	27	48	44	46	56
Singapore	1.0	3.9	5.6	6.6	7.1	99	100	100	100	100
Thailand	3.4	19.6	34.0	43.1	44.3	16	31	50	64	72
Timor-Leste	0.0	0.2	0.4	0.6	1.0	10	24	33	41	48
Viet Nam	2.9	19.7	31.4	43.7	55.7	12	24	34	43	54
<b>South Asia</b>	<b>79.0</b>	<b>420.7</b>	<b>624.4</b>	<b>875.2</b>	<b>1213.6</b>	<b>16</b>	<b>29</b>	<b>35</b>	<b>42</b>	<b>52</b>
Afghanistan	0.4	4.4	8.5	14.8	25.6	6	21	27	34	45
Bangladesh	1.6	31.2	55.0	83.2	112.4	4	24	34	45	56
Bhutan	0.004	0.143	0.300	0.430	0.539	2	25	39	48	55
India	64.1	288.4	419.9	583.0	814.4	17	28	33	39	50
Iran (Islamic Republic of)	4.7	42.2	58.3	72.5	84.4	28	64	73	79	84
Maldives	0.0	0.1	0.2	0.2	0.3	11	28	46	56	62
Nepal	0.2	3.1	5.3	8.2	13.0	3	13	19	25	36
Pakistan	6.6	47.7	72.9	107.9	155.7	18	33	39	47	57
Sri Lanka	1.2	3.5	4.0	4.9	7.2	15	18	18	21	30
<b>Oceania</b>	<b>7.9</b>	<b>22.0</b>	<b>27.9</b>	<b>33.7</b>	<b>41.8</b>	<b>62</b>	<b>71</b>	<b>71</b>	<b>71</b>	<b>74</b>
Australia	6.3	16.8	21.4	25.8	31.3	77	87	89	91	93
Cook Islands	0.006	0.012	0.016	0.017	0.020	38	65	75	78	82
Fiji	0.070	0.389	0.480	0.554	0.597	24	48	54	59	65
Kiribati	0.003	0.036	0.047	0.062	0.085	11	43	44	48	55
Marshall Islands	0.003	0.036	0.039	0.044	0.054	23	68	73	76	80
Micronesia (Federated States of)	0.006	0.024	0.023	0.029	0.039	20	22	22	24	30
Nauru	0.003	0.010	0.010	0.011	0.011	100	100	100	100	100
New Zealand	1.4	3.3	4.0	4.5	5.2	73	86	86	87	90
Niue	0.001	0.001	0.001	0.001	0.001	22	33	43	52	59
Palau	0.004	0.013	0.019	0.023	0.026	54	70	87	92	93
Papua New Guinea	0.029	0.710	0.993	1.503	2.976	2	13	13	15	23
Samoa	0.011	0.038	0.037	0.040	0.057	13	22	19	19	23
Solomon Islands	0.003	0.065	0.131	0.218	0.355	4	16	22	29	35
Tokelau	0.000	0.000	0.000	0.000	0.000	0	0	0	0	0
Tonga	0.006	0.023	0.025	0.031	0.045	13	23	24	26	32
Tuvalu	0.001	0.004	0.006	0.007	0.009	11	46	60	70	75
Vanuatu	0.004	0.040	0.069	0.109	0.177	9	22	26	31	38
<b>Asia-Pacific</b>	<b>232.0</b>	<b>1274.8</b>	<b>1936.3</b>	<b>2520.0</b>	<b>3013.4</b>	<b>17</b>	<b>36</b>	<b>47</b>	<b>55</b>	<b>62</b>
<b>Europe</b>	<b>283.0</b>	<b>516.8</b>	<b>547.1</b>	<b>567.0</b>	<b>581.1</b>	<b>52</b>	<b>71</b>	<b>74</b>	<b>77</b>	<b>82</b>
<b>Latin America and the Caribbean</b>	<b>69.3</b>	<b>396.3</b>	<b>502.8</b>	<b>595.1</b>	<b>673.6</b>	<b>41</b>	<b>75</b>	<b>80</b>	<b>83</b>	<b>86</b>
<b>North America</b>	<b>109.7</b>	<b>249.5</b>	<b>294.8</b>	<b>339.8</b>	<b>390.1</b>	<b>64</b>	<b>79</b>	<b>82</b>	<b>84</b>	<b>87</b>
<b>Sub-Saharan Africa</b>	<b>19.2</b>	<b>196.9</b>	<b>359.5</b>	<b>621.4</b>	<b>1136.8</b>	<b>11</b>	<b>31</b>	<b>38</b>	<b>45</b>	<b>55</b>
<b>World</b>	<b>746.5</b>	<b>2856.1</b>	<b>3957.3</b>	<b>5058.2</b>	<b>6338.6</b>	<b>30</b>	<b>47</b>	<b>54</b>	<b>60</b>	<b>66</b>

**TABLE 16:**  
**Education indicators and enrolment ratio**

HDI rank	Region, country or area	Literacy rate			Gross enrolment ratio						Education quality						
		Adult	"Youth (% aged 15-24)"		Population with at least some secondary education	Pre-primary	Primary			Tertiary	Primary school dropout rate	Performance of 15-year-old students			Primary school teachers trained to teach	Pupil-teacher ratio, primary school	Public expenditure on education
			(% ages 15 and older)	Female	Male		(% ages 25 and older)	(% of preschool-age children)	(% of primary school-age population)			(% of secondary school-age population)	(% of tertiary school-age population)	(% of primary school cohort)	Reading	Mathematics	Science
		2005-2013	2005-2013	2005-2013	2005-2013	2008-2014	2008-2014	2008-2014	2008-2014	2008-2014	2008-2014	2012	2012	2012	2008-2014	2008-2014	2005-2014
<b>VERY HIGH HUMAN DEVELOPMENT</b>																	
2	Australia	..	..	..	94.4	108	105	136	86	..	512	504	521	..	..	5.1	
9	New Zealand	..	..	..	95.2	92	99	120	80	..	512	500	516	..	15	7.4	
11	Singapore	96.4	99.8	99.8	77.4	..	..	..	..	1.3	542	573	551	94	17	2.9	
12	Hong Kong, China (SAR)	..	..	..	75.4	101	105	99	67	1.0	545	561	555	96	14	3.8	
17	Republic of Korea	..	..	..	82.9	118	103	97	98	0.8	536	554	538	..	18	4.9	
20	Japan	..	..	..	86.4	88	102	102	61	0.2	538	536	547	..	17	3.8	
31	Brunei Darussalam	95.4	99.7	99.8	65.9	64	94	106	24	3.6	..	..	..	85	10	3.8	
<b>HIGH HUMAN DEVELOPMENT</b>																	
60	Palau	99.5	99.8	99.8	..	65	103	89	46	..	..	..	..	..	..	..	
62	Malaysia	93.1	98.5	98.4	68.2	84	101	71	37	0.9	398	421	420	..	12	5.9	
69	Iran (Islamic Republic of)	84.3	97.7	98.3	65.1	38	119	86	55	3.8	..	..	..	100	26	3.7	
73	Sri Lanka	91.2	98.6	97.7	74.0	89	98	99	17	3.4	..	..	..	82	24	1.7	
90	China	95.1	99.6	99.7	65.3	70	128	89	27	..	570	613	580	..	18	..	
90	Fiji	..	..	..	64.3	18	105	88	16	3.5	..	..	..	100	28	4.2	
90	Mongolia	98.3	98.9	98.0	84.8	86	109	92	62	9.1	..	..	..	100	28	5.5	
93	Thailand	96.4	96.6	96.6	38.1	119	93	87	51	..	441	427	444	..	16	7.6	
100	Tonga	98.4	99.5	99.4	87.9	35	110	91	6	9.6	..	..	..	..	21	..	
104	Maldives	98.4	99.4	99.2	30.1	82	98	72	13	17.2	..	..	..	77	11	6.2	
105	Samoa	98.9	99.6	99.4	..	34	105	86	..	10.0	..	..	..	..	30	5.8	
<b>MEDIUM HUMAN DEVELOPMENT</b>																	
110	Indonesia	92.8	98.8	98.8	44.5	48	109	83	32	11.0	396	375	382	..	19	3.6	
115	Philippines	95.4	98.5	97.0	64.8	51	106	85	28	24.2	..	..	..	..	31	3.4	
116	Viet Nam	93.5	96.8	97.4	65.0	82	105	..	25	5.5	508	511	528	100	19	6.3	
123	Micronesia (Federated States of)	..	..	..	..	29	98	83	..	..	..	..	..	..	..	..	
130	India	62.8	74.4	88.4	42.1	58	113	69	25	..	..	..	..	..	35	3.8	
132	Bhutan	52.8	68.0	80.0	34.4	14	107	78	9	21.1	..	..	..	91	24	5.5	
133	Timor-Leste	58.3	78.6	80.5	..	10	125	57	18	16.4	..	..	..	..	31	9.4	
134	Vanuatu	83.4	95.1	94.7	..	61	122	60	5	28.5	..	..	..	100	22	5.0	
137	Kiribati	..	..	..	..	71	116	86	..	21.1	..	..	..	85	25	..	
141	Lao People's Democratic Republic	72.7	78.7	89.2	29.8	26	121	50	18	26.7	..	..	..	98	26	2.8	
142	Bangladesh	58.8	81.9	78.0	37.8	26	114	54	13	33.8	..	..	..	58	40	2.2	
143	Cambodia	73.9	85.9	88.4	15.5	15	125	45	16	35.8	..	..	..	100	47	2.6	
<b>LOW HUMAN DEVELOPMENT</b>																	
145	Nepal	57.4	77.5	89.2	274	87	133	67	14	39.6	..	..	..	94	24	4.7	
147	Pakistan	54.7	63.1	78.0	33.2	82	92	38	10	37.8	..	..	..	85	43	2.5	
148	Myanmar	92.6	95.8	96.2	19.2	9	114	50	13	25.2	..	..	..	100	28	0.8	
156	Solomon Islands	..	..	..	..	43	114	48	..	25.1	..	..	..	63	21	9.9	
158	Papua New Guinea	62.9	75.8	66.8	11.1	100	114	40	..	..	..	..	..	..	..	..	
171	Afghanistan	31.7	32.1	61.9	18.2	1	106	54	4	..	..	..	..	..	45	..	
<b>OTHER COUNTRIES OR TERRITORIES</b>																	
	Democratic People's Republic of Korea	100.0	100.0	100.0	..	..	..	..	..	..	..	..	..	..	..	..	
	Marshall Islands	..	..	..	..	48	105	103	43	16.5	..	..	..	..	..	..	
	Nauru	..	..	..	..	79	94	72	..	..	..	..	..	74	22	..	
	Tuvalu	..	..	..	..	84	88	84	..	..	..	..	..	..	19	..	

**TABLE 16 (continued):**  
**Education indicators and enrolment ratio**

HDI rank	Region, country or area	Literacy rate			Gross enrolment ratio						Education quality						Primary school teachers trained to teach	Pupil-teacher ratio, primary school	Public expenditure on education	
		"Youth (% aged 15-24)"		Population with at least some secondary education	Pre-primary	Primary			Secondary			Primary school dropout rate	Performance of 15-year-old students			Primary school teachers trained to teach	Pupil-teacher ratio, primary school	Public expenditure on education		
		Adult	(% ages 15 and older)			Female	Male	(% ages 25 and older)	(% of preschool-age children)	(% of primary school-age population)	(% of secondary school-age population)		(% of tertiary school-age population)	(% of primary school cohort)	Reading	Mathematics	Science	(%)	(Number of pupils per teacher)	(% of GDP)
2005-2013	2005-2013	2005-2013	2005-2013	2008-2014	2008-2014	2008-2014	2008-2014	2008-2014	2008-2014	2008-2014	2008-2014	2012	2012	2012	2008-2014	2008-2014	2005-2014			
<b>Regions</b>																				
Arab States	78.0	86.9	93.1	41.5	33	104	74	29	8.8	—	—	—	91	23	4.3	—	—	—	—	—
East Asia and the Pacific	94.5	98.7	98.8	60.5	64	118	85	28	17.3	—	—	—	..	19	4.9	—	—	—	—	—
Europe and Central Asia	98.0	99.3	99.7	75.5	42	100	93	51	3.7	—	—	—	94	17	3.4	—	—	—	—	—
Latin America and the Caribbean	92.3	98.0	97.6	54.6	78	114	94	38	13.8	—	—	—	93	22	5.5	—	—	—	—	—
South Asia	62.5	74.3	86.3	42.0	57	111	64	23	22.8	—	—	—	80	35	3.5	—	—	—	—	—
Sub-Saharan Africa	58.4	62.7	74.7	26.5	22	101	43	8	37.9	—	—	—	75	42	5.1	—	—	—	—	—
<b>Developing countries</b>	79.9	84.1	90.4	51.2	50	110	70	25	25.3	—	—	—	84	27	4.7	—	—	—	—	—
<b>Least developed countries</b>	58.4	65.9	75.5	21.6	18	106	42	8	39.6	—	—	—	76	41	3.4	—	—	—	—	—
<b>Small island developing states</b>	80.1	86.7	86.1	..	66	106	71	..	15.1	—	—	—	88	18	7.6	—	—	—	—	—
Organisation for Economic Co-operation and Development (OECD)	..	..	..	84.5	87	102	98	71	2.8	—	—	—	..	16	5.1	—	—	—	—	—
<b>World</b>	81.2	84.7	90.8	59.7	54	109	74	32	17.6	—	—	—	..	25	5.0	—	—	—	—	—

Notes:  
Cook Islands; Macao, China (SAR); Niue; Taiwan Province of China and Tokelau have limited information available.

**TABLE 17:**  
**Health indicators**

HDI rank	Region, country or area	Infants exclusively breastfed		Infants lacking immunization		Mortality rates		Child malnutrition (% under age five)	Adult mortality rate (Per 1,000 people)	Deaths due to			HIV prevalence, adult (% aged 15-49)	Life expectancy at age 60 (Years)	Physicians (Per 10,000 people)	Public health expenditure (% of GDP)					
						(Per 1,000 live births)				Stunting (moderate or severe)		(Per 100,000 people)									
		(% aged 0-5 months)	DTP	Measles	Infant	Under-ve	Female			Male	Malaria	Tuberculosis	(2010/2015)								
2008- 2013	2013	2013	2013	2013	2013	2008- 2013	2013	2013	2013	2012	2012	2013	2010/2015	2001- 2013	2013						
<b>VERY HIGH HUMAN DEVELOPMENT</b>																					
2	Australia	..	8	6	3.4	4.0	..	45	78	..	0.2	0.2	25	33	9.0						
9	New Zealand	..	7	8	5.2	6.3	..	52	80	..	0.1	..	24	27	9.7						
11	Singapore	..	2	5	2.2	2.8	4.4	38	69	..	1.7	..	24	19	4.6						
12	Hong Kong, China (SAR)	..	..	..	..	..	..	..	..	..	2.6	..	25	..	..						
17	Republic of Korea	..	1	1	3.2	3.7	2.5	38	93	0.0	5.4	..	24	21	7.2						
20	Japan	..	1	5	2.1	2.9	..	42	81	..	1.7	..	26	23	10.3						
31	Brunei Darussalam	..	4	1	8.4	9.9	..	69	101	..	3.0	..	21	15	2.5						
<b>HIGH HUMAN DEVELOPMENT</b>																					
60	Palau	..	1	1	15.1	17.5	..	106	156	..	4.4	..	..	14	9.9						
62	Malaysia	..	1	5	7.2	8.5	17.2	86	169	1.0	5.4	0.4	19	12	4.0						
69	Iran (Islamic Republic of)	53.1	2	2	14.4	16.8	6.8	83	153	0.0	2.9	0.1	20	9	6.7						
73	Sri Lanka	75.8	1	1	8.2	9.6	14.7	75	184	0.0	1.1	0.1	20	7	3.2						
90	China	27.6	1	1	10.9	12.7	9.4	76	103	0.0	3.2	..	19	15	5.6						
90	Fiji	39.8	1	6	20.0	23.6	7.5	143	239	..	1.7	0.1	17	4	4.1						
90	Mongolia	65.7	2	3	26.4	31.8	15.9	148	309	..	7.2	0.1	16	28	6.0						
93	Thailand	12.3	1	1	11.3	13.1	16.3	90	177	0.9	14.0	1.1	21	4	4.6						
100	Tonga	52.2	1	1	10.4	12.1	2.2	245	115	..	2.5	..	19	6	4.7						
104	Maldives	47.8	1	1	8.4	9.9	20.3	55	86	..	2.0	0.1	21	14	10.8						
105	Samoa	51.3	1	1	15.5	18.1	6.4	97	166	..	3.2	..	19	5	7.5						
<b>MEDIUM HUMAN DEVELOPMENT</b>																					
110	Indonesia	41.5	2	16	24.5	29.3	36.4	121	176	9.8	27.0	0.5	18	2	3.1						
115	Philippines	34.0	2	10	23.5	29.9	30.3	136	255	0.1	24.0	..	17	12	4.4						
116	Viet Nam	17.0	17	2	19.0	23.8	23.3	69	189	0.2	20.0	0.4	22	12	6.0						
123	Micronesia (Federated States of)	..	2	9	29.8	36.4	..	154	181	..	24.0	..	17	2	12.6						
130	India	46.4	12	26	41.4	52.7	47.9	158	239	4.1	22.0	0.3	17	7	4.0						
132	Bhutan	48.7	3	6	29.7	36.2	33.6	212	219	0.0	14.0	0.1	19	3	3.6						
133	Timor-Leste	51.5	14	30	46.2	54.6	57.7	164	208	16.2	74.0	..	17	1	1.3						
134	Vanuatu	40.0	22	48	14.6	16.9	25.9	113	161	3.7	7.9	..	18	1	3.9						
137	Kiribati	69.0	5	9	45.1	58.2	..	134	206	..	17.0	..	17	4	10.1						
141	Lao People's Democratic Republic	40.4	11	18	53.8	71.4	43.8	158	197	9.5	11.0	0.1	17	2	2.0						
142	Bangladesh	64.1	1	7	33.2	41.1	41.4	126	156	13.9	45.0	0.1	18	4	3.7						
143	Cambodia	73.5	5	10	32.5	37.9	40.9	157	210	3.7	63.0	0.7	24	2	7.5						
<b>LOW HUMAN DEVELOPMENT</b>																					
145	Nepal	69.6	6	12	32.2	39.7	40.5	159	192	0.2	20.0	0.2	17	2	6.0						
147	Pakistan	37.7	21	39	69.0	85.5	45.0	155	189	1.8	34.0	0.1	17	8	2.8						
148	Myanmar	23.6	10	14	39.8	50.5	35.1	183	240	11.3	48.0	0.6	17	6	1.8						
156	Solomon Islands	73.7	12	24	25.1	30.1	32.8	162	203	5.5	15.0	..	17	2	5.1						
158	Papua New Guinea	56.1	12	30	47.3	61.4	49.5	243	319	40.3	54.0	0.6	15	1	4.5						
171	Afghanistan	..	14	25	70.2	97.3	59.3	232	252	0.2	37.0	0.1	16	2	8.1						
<b>OTHER COUNTRIES OR TERRITORIES</b>																					
Democratic People's Republic of Korea	68.9	6	1	21.7	27.4	27.9	111	183	0.0	9.0	..	17	33	..	..						
Marshall Islands	31.3	27	30	30.6	37.5	..	104	153	..	111.0	..	..	4	..	16.5						
Nauru	67.2	2	4	29.9	36.6	24.0	44	88	..	9.5	..	..	7	..	..						
Tuvalu	34.7	1	4	24.4	29.2	10.0	182	236	..	37.0	..	..	11	..	19.7						

**TABLE 17 (continued):**  
**Health indicators**

HDI rank or area	Infants exclusively breastfed		Infants lacking immunization		Mortality rates		Child malnutrition		Adult mortality rate		Deaths due to			Public health expenditure (% of GDP)	
					(Per 1,000 live births)		(% under age five)		(Per 1,000 people)		(Per 100,000 people)		HIV prevalence, adult	Life expectancy at age 60	
	(% aged 0-5 months)		DTP	Measles	Infant	Under-ve	Stunting (moderate or severe)		Female	Male	Malaria	Tuberculosis	(% aged 15-49)	(Years)	
2008- 2013	2013	2013	2013	2013	2013	2013	2008- 2013	2013	2013	2012	2012	2013	2010/2015	2001- 2013	2013
Arab States	30.1	9	15	28.6	37.6	25.7	124	172	..	8.2	0.1	19	14	4.1	
East Asia and the Pacific	30.7	3	5	16.1	19.5	18.1	89	130	1.8	10.2	0.6	19	12	5.3	
Europe and Central Asia	32.1	3	5	20.9	23.8	14.3	102	216	..	5.2	0.4	19	26	5.9	
Latin America and the Caribbean	35.0	5	8	15.2	17.9	13.9	96	177	0.6	3.0	0.5	21	19	7.6	
South Asia	47.9	12	24	43.2	54.9	45.1	151	222	4.4	24.4	0.2	19	7	4.3	
Sub-Saharan Africa	35.4	18	26	60.8	91.2	37.2	288	337	72.9	26.4	4.7	17	2	5.6	
<b>Developing countries</b>	37.5	10	17	37	49.3	31.0	134	192	14.0	15.8	1.2	19	10	5.6	
<b>Least developed countries</b>	45.9	11	21	54.6	78.8	40.5	223	266	47.3	32.1	1.9	17	2	5.2	
<b>Small island developing states</b>	35.9	9	22	36.8	47.8	23.7	153	202	..	16.5	1.1	19	23	6.5	
Organisation for Economic Co-operation and Development (OECD)	..	3	7	6.5	7.6	..	60	113	..	0.9	..	23	27	12.3	
<b>World</b>	37.4	9	16	33.6	45.6	29.7	120	181	..	13.4	1.1	21	14	9.9	

Notes:  
Cook Islands; Macao, China (SAR); Niue; Taiwan Province of China and Tokelau have limited information available.

**TABLE 18:**  
**Employment and unemployment indicators**

HDI rank	Region, country or area	Unemployment												Labour productivity					
		Employment to population ratio		Labour force participation rate		Employment in agriculture		Employment in services		Labour force with tertiary education		Vulnerable employment		Total	Long-term	Youth	Youth not in school or employment	Output per worker	Hours worked per week
		(% ages 15 and older)	(% ages 15 and older)	(% ages 15 and older)	(% of total employment)	(% of total employment)	(% of total employment)	(%)	(% of total employment)	(% of labour force)	(% of youth labour force)	(% aged 15-24)	(2011 PPP \$)	(Per employed person)					
		2013	2013	1990	2012	1990	2012	2007-2012	2008-2013	2008-2013	2008-2013	2008-2014	2008-2013	2005-2012	2003-2012				
<b>VERY HIGH HUMAN DEVELOPMENT</b>																			
2	Australia	62	65	5.6	3.3	69.3	75.5	37	9	5.2	1.1	12	5	69,987	33				
9	New Zealand	64	68	10.6	6.6	64.5	72.5	39	12	6.9	0.7	16	12	50,713	33				
11	Singapore	66	68	..	1.1	63.4	77.1	..	9	2.8	0.6	7	..	96,573	..				
12	Hong Kong, China (SAR)	57	59	0.9	0.2	62.4	87.7	25	7	3.4	..	9	7	88,809	44				
17	Republic of Korea	59	61	17.9	6.6	46.7	76.4	31	25	3.2	0.0	9	..	57,271	40				
20	Japan	57	59	7.2	3.7	58.2	69.7	38	11	4.3	1.6	7	4	64,383	34				
31	Brunei Darussalam	62	64	..	..	..	..	..	..	1.7	..	..	..	100,057	..				
<b>HIGH HUMAN DEVELOPMENT</b>																			
60	Palau	..	..	..	..	..	..	..	..	4.2	..	..	..	..	..	..	..		
62	Malaysia	58	59	26.0	12.6	46.5	59.0	19	22	3.0	..	10	..	35,036	43				
69	Iran (Islamic Republic of)	39	45	..	21.2	..	46.5	..	42	10.4	..	29	34	35,432	..				
73	Sri Lanka	53	55	47.8	39.4	30.0	41.5	15	43	4.4	1.9	20	1	13,234	44				
90	China	68	71	60.1	34.8	18.5	35.7	..	..	2.9	..	..	..	..	..	..	..		
90	Fiji	51	55	..	..	..	..	..	39	6.9	2.6	19	..	11,894	38				
90	Mongolia	60	63	..	32.6	..	49.6	27	51	7.9	3.4	17	2	10,921	..				
93	Thailand	72	72	64.0	39.6	22.0	39.4	..	56	0.8	0.1	3	..	14,443	43				
100	Tonga	..	64	..	31.8	44.7	37.5	..	55	1.1	..	12	..	..	..	..	..		
104	Maldives	59	67	25.2	11.5	48.5	60.0	..	30	14.4	..	25	56	18,670	..				
105	Samoa	..	42	..	..	..	..	..	38	5.7	..	19	99	..	..	..	..		
<b>MEDIUM HUMAN DEVELOPMENT</b>																			
110	Indonesia	64	68	55.9	35.9	30.2	43.5	7	33	6.2	..	31	..	9,536	..				
115	Philippines	61	65	45.2	32.2	39.7	52.5	25	40	7.1	0.1	16	25	9,571	..				
116	Viet Nam	76	78	..	47.4	..	31.5	..	63	2.0	0.3	6	9	5,250	..				
123	Micronesia (Federated States of)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..		
130	India	52	54	..	47.2	..	28.1	..	81	3.6	1.4	11	..	8,821	..				
132	Bhutan	71	73	..	62.2	..	29.1	..	53	2.1	..	10	..	11,438	..				
133	Timor-Leste	36	38	..	50.6	..	39.8	2	70	3.9	0.4	15	..	8,156	46				
134	Vanuatu	..	71	..	60.5	..	31.1	..	70	4.6	..	11	..	..	..	..	..		
137	Kiribati	..	..	..	..	..	..	..	..	30.6	..	54	..	..	..	..	..		
141	Lao People's Democratic Republic	77	78	..	..	..	..	..	88	1.4	..	..	..	5,114	..				
142	Bangladesh	68	71	..	48.1	14.8	37.4	..	85	4.5	..	9	..	3,457	44				
143	Cambodia	82	83	..	51.0	..	30.4	..	64	0.3	..	1	79	3,849	..				
<b>LOW HUMAN DEVELOPMENT</b>																			
145	Nepal	81	83	..	..	..	..	..	..	2.7	1.0	3	..	2,448	38				
147	Pakistan	52	54	51.1	44.7	28.9	35.2	25	63	5.0	1.1	8	..	7,367	33				
148	Myanmar	76	79	69.7	..	21.0	..	..	..	..	..	..	..	..	..	..	..		
156	Solomon Islands	64	66	..	..	..	..	..	..	..	..	..	..	..	..	..	..		
158	Papua New Guinea	71	72	..	..	..	..	..	..	..	..	5	..	5,738	..				
171	Afghanistan	44	48	..	..	..	..	..	..	8.2	..	..	..	5,417	..				
<b>OTHER COUNTRIES OR TERRITORIES</b>																			
	Democratic People's Republic of Korea	74	78	..	..	..	..	..	..	..	..	..	..	..	..	..	..		
	Marshall Islands	..	..	..	..	..	..	..	..	4.7	..	..	..	..	..	..	..		
	Nauru	..	..	..	..	..	..	..	..	..	..	38	..	..	..	..	..		
	Tuvalu	..	..	..	..	..	..	..	..	6.5	..	..	..	..	..	..	..		

**TABLE 18 (continued):**  
**Employment and unemployment indicators**

HDI rank	Region, country or area	Unemployment												Labour productivity			
		Employment to population ratio		Labour force participation rate		Employment in agriculture		Employment in services		Labour force with tertiary education		Vulnerable employment		Youth not in school or employment		Output per worker	
		(% ages 15 and older)	(% ages 15 and older)	(% ages 15 and older)	(% of total employment)					(%)	(% of total employment)	(% of labour force)	Total	Long-term	Youth	(% of youth labour force) (% aged 15-24)	(2011 PPP \$)
		2013	2013	1990	2012	1990	2012	2007-2012	2008-2013	2008-2013	2008-2013	2008-2013	2008-2014	2008-2013	2005-2012	2003-2012	
Arab States	45	50	..	20.8	..	53.9	..	30	11.8	..	29	..	..	26,331	..		
East Asia and the Pacific	68	71	..	35.5	..	37.3	..	..	3.3	..	19	..	..	..	..	..	
Europe and Central Asia	52	57	..	24.5	..	52.5	..	29	9.9	..	20	..	..	30,460	..		
Latin America and the Caribbean	62	66	..	16.3	54.2	62.1	..	31	6.2	..	14	..	..	23,243	..		
South Asia	53	56	..	45.9	..	30.6	..	77	4.2	..	11	..	..	8,117	..		
Sub-Saharan Africa	66	71	..	59.0	..	30.0	..	..	11.9	..	13	..	..	..	..	..	
<b>Developing countries</b>	<b>61</b>	<b>64</b>	<b>..</b>	<b>36.9</b>	<b>..</b>	<b>39.1</b>	<b>..</b>	<b>54</b>	<b>5.6</b>	<b>..</b>	<b>15</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>..</b>	
<b>Least developed countries</b>	<b>70</b>	<b>74</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>6.3</b>	<b>..</b>	<b>10</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>..</b>	
<b>Small island developing states</b>	<b>58</b>	<b>63</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>8.7</b>	<b>..</b>	<b>18</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>..</b>	
<b>Organisation for Economic Co-operation and Development (OECD)</b>	<b>55</b>	<b>60</b>	<b>10.1</b>	<b>5.1</b>	<b>59.9</b>	<b>72.3</b>	<b>31</b>	<b>16</b>	<b>8.2</b>	<b>2.8</b>	<b>17</b>	<b>15</b>	<b>58,391</b>	<b>34.3</b>			
<b>World</b>	<b>60</b>	<b>63</b>	<b>..</b>	<b>30.3</b>	<b>..</b>	<b>46.0</b>	<b>..</b>	<b>48</b>	<b>6.1</b>	<b>..</b>	<b>15</b>	<b>..</b>	<b>..</b>	<b>24,280</b>	<b>..</b>		

Notes:  
Cook Islands; Macao, China (SAR); Niue; Taiwan Province of China and Tokelau have limited information available.

**TABLE 19:**  
**International trade, finance and labour flows**

HDI rank	Country	Exports and imports (% of GDP)	Trade		Financial flows		Human mobility			Communication					
			Foreign direct investment, net inflows (% of GDP)	Private capital flows (% of GDP)	Net official development assistance received (% of GNI)	Remittances inflows (% of GDP)	Net migration rate (Per 1,000 people)	Stock of immigrants (% of population)	International student mobility (% of total tertiary enrolment)	International inbound tourists ('000s)	Internet users (% of population)	Mobile phone subscriptions (Per 100 people)	2013	2014	2014
			2013	2013	2013	2013	2013	2013	2013	2013	2013	2013	2014	2014	2009-2014
<b>VERY HIGH HUMAN DEVELOPMENT</b>															
2	Australia	41	3.3	-6.8	..	0.16	6.5	27.7	17.1	6,382	85	131	30.3		
9	New Zealand	57	-0.3	0.8	..	0.25	3.3	25.1	14.0	2,629	86	112	3.1		
11	Singapore	358	21.4	3.4	..	..	15.0	42.9	10.3	11,900	82	158	14.0		
12	Hong Kong, China (SAR)	458	28.0	21.1	..	0.13	4.2	38.9	-1.7	25,700	75	239	33.1		
17	Republic of Korea	103	0.9	1.9	..	0.49	1.2	2.5	-1.7	12,200	84	116	16.1		
20	Japan	35	0.1	-2.7	..	0.05	0.6	1.9	3.0	10,400	91	120	31.7		
31	Brunei Darussalam	109	5.6	-1.0	..	..	0.8	49.3	-38.3	225	69	110	5.1		
<b>HIGH HUMAN DEVELOPMENT</b>															
60	Palau	137	2.3	..	14.8	..	..	26.7	..	105	..	91	44.6		
62	Malaysia	154	3.7	0.7	0.0	0.45	3.1	8.3	-0.2	25,700	68	149	37.2		
69	Iran (Islamic Republic of)	54	0.8	..	0.0	0.25	-0.8	3.4	-1.0	4,769	39	88	22.9		
73	Sri Lanka	54	1.4	-4.4	0.6	9.56	-3.0	1.5	-5.1	1,275	26	103	30.3		
90	China	50	3.8	-2.7	0.0	0.42	-0.2	0.1	-1.8	55,700	49	92	66.9		
90	Fiji	136	4.1	-14.1	2.4	5.28	-6.6	2.6	20.1	658	42	99	31.6		
90	Mongolia	112	18.7	-17.0	4.0	2.22	-1.1	0.6	-3.9	418	27	105	24.8		
93	Thailand	144	3.3	0.4	0.0	1.47	0.3	5.6	-0.2	26,500	35	144	45.2		
100	Tonga	80	2.5	..	16.8	23.80	-15.4	5.2	..	45	40	64	25.6		
104	Maldives	224	15.7	-13.4	1.2	0.14	0.0	24.4	-1,678.1	1,125	49	189	32.3		
105	Samoa	81	3.0	-2.8	15.3	19.71	-13.4	3.0	..	116	21	56	..		
<b>MEDIUM HUMAN DEVELOPMENT</b>															
110	Indonesia	49	2.7	-2.7	0.0	0.88	-0.6	0.1	-0.5	8,802	17	126	83.1		
115	Philippines	60	1.3	-0.3	0.1	9.81	-1.4	0.2	-0.2	4,681	40	111	35.2		
116	Viet Nam	164	5.2	-4.9	2.5	6.35	-0.4	0.1	-2.2	7,572	48	147	32.1		
123	Micronesia (Federated States of)	..	0.6	..	41.7	6.97	-15.7	2.5	..	42	..	..	..		
130	India	53	1.5	-1.8	0.1	3.73	-0.4	0.4	-0.6	6,968	18	74	68.8		
132	Bhutan	104	2.8	..	8.1	0.66	2.7	6.7	-29.9	116	34	82	70.6		
133	Timor-Leste	137	1.6	178.6	6.0	9.44	-13.3	1.0	..	58	1	59	78.1		
134	Vanuatu	99	4.0	-2.0	11.4	2.86	0.0	1.2	..	110	19	60	5.9		
137	Kiribati	121	5.3	4.0	25.5	7.30	-2.0	2.6	..	6	12	17	69.2		
141	Lao People's Democratic Republic	83	3.8	-3.9	4.0	0.53	-2.2	0.3	-3.4	2,510	14	67	29.8		
142	Bangladesh	46	1.0	-0.9	1.6	9.24	-2.6	0.9	-1.1	148	10	76	121.0		
143	Cambodia	140	8.8	-8.4	5.6	1.15	-2.3	0.5	-2.7	4,210	9	155	250.0		
<b>LOW HUMAN DEVELOPMENT</b>															
145	Nepal	48	0.4	..	4.5	28.77	-2.9	3.5	-7.6	798	15	82	291.2		
147	Pakistan	33	0.6	-0.5	0.9	6.30	-1.8	2.2	-5.3	966	14	73	32.2		
148	Myanmar	..	..	..	..	..	-0.4	0.2	-1.0	2,044	2	49	..		
156	Solomon Islands	119	4.1	-4.0	30.0	1.51	-4.3	1.4	..	24	9	66	577.2		
158	Papua New Guinea	..	0.1	-4.0	4.5	0.09	0.0	0.3	..	174	9	45	112.5		
171	Afghanistan	55	0.3	0.0	25.7	2.65	-2.6	0.3	-5.8	..	6	75	97.6		
<b>OTHER COUNTRIES OR TERRITORIES</b>															
	Democratic People's Republic of Korea	..	..	..	..	..	0.0	0.2	..	0	0	11	..		
	Marshall Islands	..	11.9	..	41.4	11.93	..	3.2	-18.0	5	17	29	..		
	Nauru	..	..	..	..	..	..	20.6	..	..	..	..	..		
	Tuvalu	..	0.9	..	48.3	10.59	..	1.5	..	1	..	38	276.7		

**TABLE 19:**  
**International trade, finance and labour flows**

HDI rank	Country	Trade		Financial flows		Human mobility				Communication			
		Exports and imports	Foreign direct investment, net inflows	Private capital flows	Net official development assistance received	Remittances inflows	Net migration rate	Stock of immigrants	International student mobility	International inbound tourists	Internet users	Mobile phone subscriptions	
		(% of GDP)	(% of GDP)	(% of GDP)	(% of GNI)	(% of GDP)	(Per 1,000 people)	(% of population)	(% of total tertiary enrolment)	('000s)	(% of population)	(Per 100 people)	(% change)
		2013	2013	2013	2013	2013	2010/2015	2013	2013	2013	2014	2014	2009-2014
Arab States	93	1.7	2.0	0.9	2.06	0.4	8.3	-0.8	75,632	35	109	59.6	
East Asia and the Pacific	59	3.6	-2.4	0.1	0.82	-0.3	0.4	-1.5	139,481	42	100	91.3	
Europe and Central Asia	73	2.7	-4.0	0.6	2.26	-0.6	6.7	-1.3	87,474	47	113	45.4	
Latin America and the Caribbean	45	3.5	-4.3	0.2	1.03	-1.0	1.3	-0.2	73,630	50	115	24.0	
South Asia	51	1.3	-1.7	0.5	4.09	-0.9	0.9	-1.2	16,165	18	76	77.1	
Sub-Saharan Africa	60	2.4	-3.4	3.0	2.18	-0.1	1.8	-2.1	33,865	19	71	111.5	
<b>Developing countries</b>	59	3.0	-2.6	0.4	1.50	-0.5	1.6	-1.2	428,877	32	91	65.5	
<b>Least developed countries</b>	67	2.7	-1.1	5.6	4.42	-1.1	1.2	-2.3	23,829	9	63	157.5	
<b>Small island developing states</b>	72	3.8	-6.7	1.9	6.11	-2.8	1.9	-7.8	17,532	28	65	44.0	
Organisation for Economic Co-operation and Development (OECD)	57	1.7	-0.5	..	0.31	1.9	9.6	3.4	602,443	78	110	9.7	
<b>World</b>	60	2.3	-0.9	0.4	0.71	0.0	3.2	0.3	1,067,976	41	96	50.0	

Notes:

Cook Islands; Macao, China (SAR); Niue; Taiwan Province of China and Tokelau have limited information available.



## ABOUT ASIA-PACIFIC HUMAN DEVELOPMENT REPORTS

For 25 years, the concept of human development has influenced discourse on international development. Putting people at the centre, human development has inspired policies, advocacy and actions to improve well-being.

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The report's theme is developed through a regional participatory process that includes consultations with key stakeholders within and outside UNDP. The concept and structure of the report is based on guidance from a

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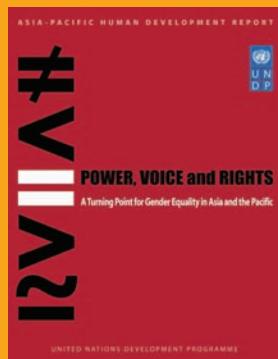
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The report is disseminated widely, helping to promote dialogue and bring together the people of Asia and the Pacific to accelerate human development and advocate for its messages across the globe.



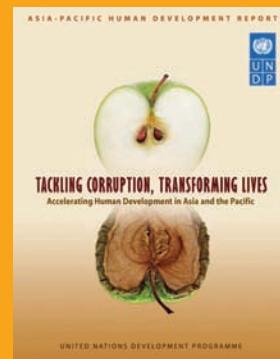
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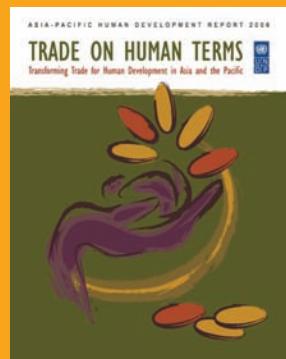
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# SHAPING THE FUTURE: HOW CHANGING DEMOGRAPHICS CAN POWER HUMAN DEVELOPMENT

People are the real wealth of nations. The opportunities they have and the choices they make determine the course of human development—nowhere more so than in Asia-Pacific, home to half the world's population. Asia-Pacific's future, to a large extent, shapes the world's future.

Beyond the sheer size of its population, Asia-Pacific is in the midst of a historic demographic transition. All countries are at some stage along a continuum where the shares of younger, older and working-age people have begun to shift. The process builds on human development gains, but also stands to advance them. Making the most of it requires people to be healthy, educated and productive, enjoying well-being at any stage of life.

This Asia-Pacific Human Development Report considers demographic changes from a human development perspective. It explores the coming 'demographic opportunity' and a potentially substantial 'demographic dividend'. Since sweeping demographic changes are happening at a historically rapid pace—and will not last forever—it urges countries across the region to understand potential opportunities and challenges in reaching their development goals, including those of the new 2030 Agenda. The time is now to make smart policy choices and investments that will steer demographic patterns in inclusive ways benefitting all people, now and for generations to come.



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