CHAPTER 1

50 YEARS OF ASIAN DEVELOPMENT

This book provides a historical overview of developing Asia's multifaceted journey to prosperity in the past half century. It highlights the region's impressive growth and transformation, and uncovers key contributing factors, while bringing out large variations across countries and over time. The book distills policy lessons and their implications for the future. It discusses mainly experiences of developing Asia—the 46 developing member economies of the Asian Development Bank (ADB) in the Asia and Pacific region, including Hong Kong, China; the Republic of Korea (ROK); Singapore; and Taipei,China.[1] Where relevant, the discussions also include the region's three developed countries—Australia, Japan, and New Zealand—and extend back to the 1950s or earlier.

1.1 Asia's rapid growth and poverty reduction over the past half century

The Asia and Pacific region achieved spectacular development over the past half century, surpassing expectations by any measure—be it economic growth, structural transformation, poverty reduction, or health and education. What was primarily an agrarian, rural, low-income region in the 1960s, with most economies struggling to

[1] While today Hong Kong, China; the ROK; Singapore; and Taipei,China are all high-income economies, they borrowed from ADB in the past and have been classified as "developing member economies" at ADB.

feed their growing populations, has today developed into a global manufacturing powerhouse, with diverse exports, growing innovation capacity, burgeoning cities, and an expanding skilled labor force and middle class.

Developing Asia's annual growth in per capita gross domestic product (GDP) averaged 4.7% between 1960 and 2018, the highest among regions worldwide (Table 1.1). Growth accelerated from 2.2% in the 1960s to 6.2% in the 2000s before moderating slightly to 5.5% during 2010–2018. In 1960, the region's per capita GDP was $330

Table 1.1: Average Annual Per Capita GDP Growth

(%)

	1960–1969	1970–1979	1980–1989	1990–1999	2000–2009	2010–2018	1960–2018
Developing Asia	**2.2**	**4.0**	**5.0**	**4.9**	**6.2**	**5.5**	**4.7**
Central Asia	...	...	...	(5.4)	7.8	3.1	2.0
East Asia	2.7	6.4	7.6	7.4	8.0	6.4	6.5
People's Republic of China	1.2	5.3	8.2	8.8	9.7	7.3	6.8
South Asia	1.9	0.6	3.1	3.3	4.3	5.3	3.1
India	1.8	0.6	3.3	3.7	4.6	5.8	3.3
Southeast Asia	2.2	4.5	3.0	3.2	3.7	4.1	3.5
The Pacific	3.7	2.0	(1.1)	1.6	1.5	1.9	1.5
NIEs	6.4	8.1	6.9	5.4	3.8	3.1	5.6
Developed Asia	**8.1**	**2.8**	**3.4**	**1.3**	**0.7**	**1.5**	**2.9**
Japan	9.1	3.1	3.7	1.2	0.4	1.5	3.1
Latin America and the Caribbean	**2.7**	**3.6**	**0.0**	**1.0**	**1.7**	**1.1**	**1.7**
Sub-Saharan Africa	**1.6**	**1.6**	**(1.3)**	**(0.8)**	**2.5**	**0.9**	**0.7**
OECD	**4.3**	**2.5**	**2.2**	**1.8**	**1.0**	**1.4**	**2.2**
World	**3.5**	**2.1**	**1.2**	**1.1**	**1.6**	**1.8**	**1.9**

... = data not available, ( ) = negative, 0.0 = magnitude is less than half of unit employed, GDP = gross domestic product, NIEs = newly industrialized economies, OECD = Organisation for Economic Co-operation and Development.

Sources: Asian Development Bank. Key Indicators Database. https://kidb.adb.org/kidb (accessed 2 August 2019); World Bank. World Development Indicators. https://data.worldbank.org (accessed 2 August 2019); and Asian Development Bank estimates.

(in constant 2010 United States [US] dollars). By 2018, it had risen to $4,903, a nearly 15-fold increase, while global per capita GDP almost tripled (Table 1.2). As a result, developing Asia's share of global GDP jumped from 4.1% to 24.0%; the region's share increased from 13.4% to 33.5% when Japan, Australia, and New Zealand are included (Figure 1.1).

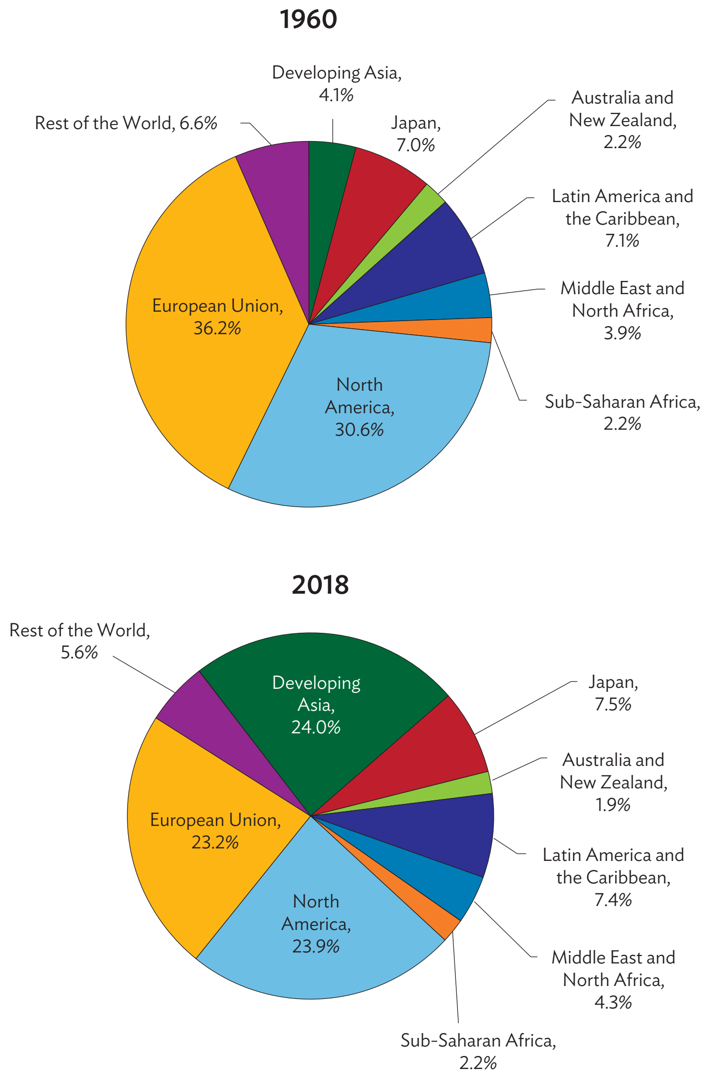
Table 1.2: GDP Per Capita
(constant 2010 US dollars)

	1960	1990	2018
Developing Asia	**330**	**1,078**	**4,903**
Bangladesh	372	411	1,203
India	330	581	2,104
Indonesia	690	1,708	4,285
Kazakhstan	...	5,890	11,166
Malaysia	1,354	4,537	12,109
Papua New Guinea	1,012	1,393	2,400
People's Republic of China	192	729	7,755
Philippines	1,059	1,527	3,022
Republic of Korea	944	8,465	26,762
Singapore	3,503	22,572	58,248
Taipei,China	919	7,691	23,113
Thailand	571	2,504	6,362
Uzbekistan	...	1,003	2,027
Viet Nam	...	433	1,964
Developed Asia	**9,685**	**37,519**	**49,857**
Australia	19,378	35,913	56,919
Japan	8,608	38,074	48,920
OECD	**11,499**	**27,337**	**39,937**
United States	16,982	35,702	54,554
World	**3,758**	**7,186**	**10,882**

... = data not available, GDP = gross domestic product, OECD = Organisation for Economic Co-operation and Development, US = United States.

Sources: Asian Development Bank. Key Indicators Database. https://kidb.adb.org/kidb/ (accessed 2 August 2019); World Bank. World Development Indicators. https://data.worldbank.org (accessed 2 August 2019); United Nations, Department of Economic and Social Affairs, Population Division. 2019. *World Population Prospects 2019.* Online Edition. https://population.un.org/wpp/ (accessed 23 August 2019); Asian Development Bank estimates; and for Taipei,China: Directorate-General of Budget, Accounting and Statistics.

Figure 1.1: Global GDP Shares, 1960 and 2018



GDP = gross domestic product.

Notes: For 1960, data for the Middle East and North Africa refer to 1968 and data for New Zealand refer to 1970. Shares calculated using GDP in constant 2010 United States dollars.

Sources: Asian Development Bank. Key Indicators Database. https://kidb.adb.org/kidb (accessed 2 August 2019); and World Bank. World Development Indicators. https://data.worldbank.org (accessed 2 August 2019).

Developing Asia's phenomenal growth has been accompanied by a dramatic structural transformation. In the 1960s, more than two-thirds of the labor force was employed in subsistence agriculture. Today, more than 65% work in industry and services—and 85%–95% in some economies (such as Kazakhstan; Malaysia; the ROK; and Taipei,China). As one of the most open regions in the world, developing Asia accounted for 30.7% of global exports and 29.3% of global imports, and attracted 35.9% of global inward foreign direct investment (FDI) in 2018. In the 1960s, Asian exports were dominated by agricultural and primary commodities and light manufacturing products such as textiles and garments. Today, the region is known as "Factory Asia": it manufactures and exports a wide range of sophisticated and innovative goods—such as automobiles, computers, smartphones, machine tools, and robots.

Substantial investment in transport and energy has significantly improved its infrastructure. Developing Asia's electrification rate has reached 90%. The region now operates three-quarters of the global high-speed rail network. Technological progress, especially advances in information and communication technology (ICT), has fueled the growth of developing Asia's high value-added service industries in recent years. The region is now home to many global e-commerce and tech giants.

Developing Asia has also become more urbanized, with nearly half of its population in 2018 living in cities, up from 20% in 1960. Economic growth and urbanization have generated an expanding middle class, creating "Marketplace Asia." The strong domestic consumption from these new consumers now drives growth in developing Asian economies as well as that of the world.

Rapid economic growth and structural transformation significantly improved the region's broad development indicators—despite the remaining gaps with Organisation for Economic Co-operation and Development (OECD) countries (Table 1.3). For example, the rate of extreme poverty fell from 68.1% in 1981 to 6.9% in 2015 using the $1.90 per day international poverty line at 2011 purchasing power parity. Average life expectancy at birth increased from 45.0 years in 1960 to 71.8 years in 2018. The infant mortality rate fell from 137.8 to 26.2 deaths per 1,000 live births during the period. Mean years of schooling for those aged 20–24 years increased from 3.5 in 1960 to 8.9 in 2010.

Table 1.3: Development Indicators

	Developing Asia				OECD			
	1960	1980	2000	2018	1960	1980	2000	2018
Poverty (% of population)	...	68.1	33.1	6.9	...	1.3	1.2	0.9
Life expectancy (years)	45.0	59.3	65.8	71.8	67.8	72.6	77.2	80.5
Infant mortality rate (per 1,000)	137.8	80.1	48.1	26.2	49.1	25.1	9.4	5.9
Mean years of schooling (aged 20–24)	3.5	6.0	7.7	8.9	7.8	10.1	11.4	12.1

... = data not available, OECD = Organisation for Economic Co-operation and Development.

Notes: Poverty refers to the rate of extreme poverty using the $1.90 per day international poverty line at 2011 purchasing power parity for 1981, 2002, and 2015. Life expectancy refers to life expectancy at birth in years. Infant mortality rate refers to infant deaths per 1,000 live births. Mean years of schooling are for those aged 20–24; data for 2018 refer to 2010.

Sources: United Nations, Department of Economic and Social Affairs, Population Division. 2019. *World Population Prospects 2019.* Online Edition. https://population.un.org/wpp/ (accessed 23 August 2019); World Bank. PovcalNet Database. http://iresearch.worldbank.org/PovcalNet/home.aspx (accessed 28 September 2019); World Bank. World Development Indicators. https://data.worldbank.org (accessed 30 September 2019); and Barro, R., and J.-W. Lee. Database Version 2.2. http://www.barrolee.com (accessed 30 September 2019).

Despite the success, developing Asia still faces many challenges, as discussed in section 1.5. Priority areas that governments should tackle include persistent poverty; increasing income inequality; remaining large gender gaps; environmental degradation and climate change; and access to education, health services, electricity, and safe drinking water. There is no room for complacency.

1.2 What explains Asia's economic success?

According to Angus Maddison,[2] Asia produced roughly two-thirds of global GDP (in purchasing power parity terms) from the beginning of recorded history until the early 19th century, reflecting its large population and relatively high productivity. Following the Industrial Revolution that started in Great Britain, growth accelerated in Western Europe and North America. With the exception of Japan, which

[2] Maddison, A. 2007. *Contours of the World Economy 1-2030 AD: Essays in Macro-Economic History.* New York: Oxford University Press.

pursued Western-style modernization from the late 19th century, Asian economies in general stagnated due to years of isolationism, colonization, weak institutions, outdated education systems, domestic conflict, and wars. They were unable to industrialize and modernize and, as a result, their importance to the global economy continued to decline.

In his classic 1968 book, *Asian Drama: An Inquiry into the Poverty of Nations*, Swedish economist Gunnar Myrdal portrayed a large part of developing Asia as a region in the "doldrums" constrained by rapid population growth and government inability to implement effective development policies.[3]

However, a half century on, Asia has transformed dramatically. What caused the change of Asia's fortune? How does one explain the region's postwar economic success?

Scholars and policy makers continue to debate these issues. After World War II, most of developing Asia ended colonial rule—often a source of domestic conflict—and gradually restored political stability. Asia was affected by the Cold War, but the region was largely at peace—except for periods of wars and conflicts in some countries. The region became more stable, especially after the Vietnam War was over in 1975 following the fall of Saigon (today's Ho Chi Minh City), Cambodia regained peace formally by the Paris Peace Agreements in 1991, and the domestic conflict in Sri Lanka ended in 2009. Yet Afghanistan still faces security challenges and needs special assistance from the international community. Peace and political stability set the groundwork for Asia's accelerated growth and development. They also provided conditions for rapid population growth and allowed many Asian countries to benefit from a "demographic dividend."

Moreover, compared with the previous 100 years, the past half century offered Asia a far more conducive external economic environment. Most advanced countries in the postwar period promoted and practiced free trade and investment. Asian countries benefited enormously from rapid technological progress and globalization, particularly in recent decades. In addition, there is little doubt that developing Asia's relatively low income in the 1950s and 1960s provided it with the potential to grow faster and catch up with advanced countries (known as "convergence").

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3 Myrdal, G. 1968. *Asian Drama: An Inquiry into the Poverty of Nations*. London: Alien Lane, The Penguin Press.

However, even with favorable external, political, and demographic conditions, the process of catch-up growth is not automatic. Bad policies and weak institutions can squander a country's economic potential. For example, insufficient investment in physical and human capital, macroeconomic instability, inward-oriented policies, and widespread corruption can all constrain a country's potential to catch up, innovate, and grow.

This book argues that Asia's postwar economic success owes much to creating better policies and institutions. These policies and institutions helped develop and nurture market economies and a vibrant private sector which, in turn, led to sustained technological adoption and innovation. This process benefited from governments' (i) pragmatism in making policy choices, including the practice of testing or piloting major policy changes before full-scale implementation; (ii) ability to learn lessons from its own and others' achievements and mistakes; and (iii) decisiveness in introducing (sometimes drastic) reforms when needed. In many countries, a clear vision for the future shared across a wide spectrum of society—often promoted by forward-looking leaders—made a difference, especially when backed by a competent bureaucracy and strong institutions.

There were variations on policy mix and timing across countries, with occasional setbacks and reversals. Some countries maintained stronger state control longer, and some resorted to more protectionist policies at times. However, over time, successful Asian economies, by and large, have pursued the policies listed below, as discussed in detail in the next 14 chapters of this book:

- rely on markets and the private sector as engines of growth, supported by governments' proactive promotion of development in areas where markets fail to work efficiently (Chapter 2);
- facilitate structural transformation from agriculture to industry and services including new services, and urbanization (Chapter 3);
- implement land reform, promote the Green Revolution, and facilitate agricultural modernization and rural transformation (Chapter 4);
- support technological progress by attracting FDI, investing in research and development (R&D), building necessary infrastructure, and protecting intellectual property rights (Chapter 5);

- invest in education and health—through compulsory basic education, technical and vocational education and training (TVET), tertiary education, targeted health interventions such as immunization, and the drive toward universal health coverage (Chapter 6);
- mobilize high-level of domestic savings for productive investment, mostly through banks, while seeking to deepen capital markets (Chapter 7);
- prioritize investment in infrastructure—energy, transport, water, and telecommunications—to support growth and raise living standards (Chapter 8);
- adopt open trade and investment regimes to ensure efficiency of resource allocation and enable access to global markets, foreign capital, and advanced technology (Chapter 9);
- pursue macroeconomic stability through sound fiscal, monetary, and financial sector policies, and appropriate exchange rate systems with increasing flexibility (Chapter 10);
- commit to poverty reduction and social inclusion by promoting inclusive economic growth and targeted social protection programs (Chapter 11);
- promote gender equality in education (such as more school years for girls), health (including declining maternal mortality), and labor market participation (Chapter 12);
- address environmental issues over time for land, water, and air, and, more recently, climate change including mitigation and adaptation (Chapter 13);
- engage with bilateral and multilateral development partners to benefit from both finance and knowledge (Chapter 14); and
- foster regional cooperation and integration (RCI) to promote trade and infrastructure connectivity, policy reforms, and good relationships among neighboring countries (Chapter 15).

1.3 Is there an Asian Consensus?

There have been much discussions whether there is an “Asian development model” that can explain Asia’s success stories, or an “Asian Consensus” that is different from the so-called “Washington Consensus.”

The term "Washington Consensus" was first used in 1989 by John Williamson,[4] a former staff member of both the International Monetary Fund (IMF) and the World Bank. It refers to a set of policy recommendations considered to constitute the standard reform package prescribed by the IMF and the World Bank to help crisis-affected countries, initially in the context of the Latin American debt crisis of the 1980s. According to Williamson, the Washington Consensus comprises 10 policy recommendations: (i) fiscal discipline, (ii) public expenditure reform, (iii) tax reform, (iv) financial liberalization toward market-determined interest rates, (v) competitive exchange rates, (vi) import liberalization, (vii) FDI liberalization, (viii) privatization of state-owned enterprises, (ix) deregulation, and (x) the protection of property rights.

The policies pursued in Asia that led to the region's rapid economic growth, poverty reduction, and broader development achievements are not so different from those prescribed by the Washington Consensus. They were also in line with standard economic theories. These include trade theory that predicts gains from trade when countries produce and export goods and services where they have comparative advantage; public economics that sees the need for governments to address externalities, provide public goods, and correct market distortions arising from imperfect competition including natural monopolies; theories related to information asymmetry, agglomeration and economies of scale, and coordination problems; and new institutional economics that highlights the importance of institutions and governance.

This book's position is that *there is no such thing as an "Asian Consensus."* What made the difference was that many Asian countries took a pragmatic approach to implementing these policies. They implemented import liberalization, opening up of FDI, financial sector deregulation, and capital account liberalization in a more gradual and sequential way. Asian economies also learned the lesson that liberalization of capital inflows should be preceded by adequate development of the domestic financial sector. They worked hard on (i) strengthening the necessary institutions that helped improve government effectiveness, (ii) supporting investment in education and

[4] Williamson, J. 1989. *What Washington Means by Policy Reform*. Washington, DC: Peterson Institute for International Economics.

health, (iii) fostering infrastructure development, and (iv) putting in place a conducive environment for private sector development.

The effectiveness of industrial policy has also been subject to heated debate. Many Asian countries adopted "targeted industrial policy" to support selected industries, using tariffs, subsidies, preferential credit, and tax incentives. Some policies were successful, while others were not. Over time, industrial policies in Asia have transformed to less intrusive ones such as those promoting R&D. As many argue, targeted industrial policy, if used badly, can lead to rent-seeking, unfair competition, and inefficiency over time. However, today, many also agree that industrial policy can be effective if used wisely, especially at the early stage of development (in protecting "infant industries"). Industrial policy can be useful even in more advanced stages, in particular where there are significant "positive externalities" such as innovation, or where there are "coordination problems" such as in developing new, nontraditional industries.[5] Industrial policy may more likely succeed when it is performance-based and promotes competition, and if it is implemented transparently—with clear policy targets, an effective implementation mechanism, and sunset clauses.[6]

1.4 A half century of multifaceted development

The role of markets, the state, and institutions

Development requires efficient markets, an effective state, and strong institutions. Markets, prices, and competition are critical for the efficient allocation of resources and creation of entrepreneurial incentives. The state is needed to establish strong institutions, intervene where markets fail to work efficiently, and promote social equity. Strong institutions ensure orderly functioning of markets and accountability of the state.

The role of markets and the state has been shaped by changes in development thinking. After World War II, state-led industrialization and "import substitution" strategies dominated development policy in developing countries. Nationalist and socialist ideologies had significant influence. The policy also had backing of development

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[5] Cherif, R., and F. Hasanov. 2019. The Return of the Policy That Shall Not Be Named: Principles of Industrial Policy. *IMF Working Paper*. No. WP/19/74. Washington, DC: International Monetary Fund.

[6] Rodrik, D. 2004. Industrial Policy for the Twenty-First Century. *KSG Working Paper Series*. No. RWP04-047. Cambridge, MA: Kennedy School of Government, Harvard University.

thinking at that time, such as the "big push" and "dependency" (or "center–periphery") theories. According to the former, in the early stage of development, governments should promote industrialization through coordinated large investment.[7] According to the latter, rising prices of industrial products relative to primary commodities would cause "terms of trade" to deteriorate for developing countries and be a major cause of their economic woes.[8] Further, import substitution was considered necessary to protect infant industries and save the foreign exchange needed to import capital goods to support industrialization.

In Asia, the role of markets and the state has changed markedly over the past 50 years, reflecting countries' evolving economy and politics, as well as their histories. It has also been influenced by shifts in global development thinking.

Japan had a tradition of a strong private sector. This can be traced back to premodern merchants who had developed supply chains, banking, a futures market for rice, as well as irrigation and river transport under concessions from the shogunate and local governments. After the start of the Meiji Restoration in 1868, government policies focused on establishing modern institutions, piloting industry and education. Although the country resorted to "targeted industrial policy" after World War II, it was for addressing serious resource constraints during the recovery process from the devastation of the war. It was also in a way a continuation of the strong state intervention prevailing immediately before and during the war period. Since then, the policy has moved toward outward-orientation instead of import substitution, and reliance on market competition and private enterprises to drive growth, while the government played some proactive roles.

In the immediate years after World War II, many governments in developing Asia adopted import substitution industrialization policies with strong state control for nation-building and development. From the 1960s, however, Hong Kong, China; the ROK; Singapore; and Taipei,China shifted toward export-promotion and market-friendly policies. They grew into what later became known as the newly industrialized economies (NIEs). In the 1970s, Indonesia, Malaysia, and Thailand opened up to trade and FDI. They too became

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7 Rosenstein-Rodan, P. 1943. Problems of Industrialisation of Eastern and South-Eastern Europe. *Economic Journal*. 53 (210/211). pp. 202–211.

8 Prebisch, R. 1962. The Economic Development of Latin America and Its Principal Problems. *Economic Bulletin for Latin America*. 7 (1). pp. 1–23.

"high-performing Asian economies"[9] in the following 2 decades. This pattern of development was referred to as the "flying geese" model.[10] Today, however, Asian economic relations are more in the form of networks as part of global value chains (GVCs) than the flying geese formation.

From the late 1970s, more Asian economies embarked on far-reaching market-oriented reforms and opened to the outside world. The People's Republic of China (PRC), after 3 decades of central planning that led to serious resource misallocation and widespread shortages, began its transition in 1978 toward a more market-oriented economy. The country piloted reforms starting with the adoption of the rural "household responsibility system," the introduction of dual-track prices, and the establishment of "special economic zones" in coastal provinces to attract FDI. It quickly adopted new technologies and learned macroeconomic management and business know-how from abroad, and subsequently launched comprehensive reforms nationwide, in the industry, trade, and financial sectors, leading to 40 years of rapid economic growth.

South Asia also joined the wave of economic reforms, after growth was constrained by decades of state-led industrialization. India started comprehensive reforms in 1991 to reduce government control, rely more on market forces, and liberalize trade and FDI, and the reforms were followed by growth acceleration. From the early 1990s, Central Asian countries started the transition toward market economies after the collapse of the Soviet Union. After initial shocks leading to recession, these countries have seen growth picking up since the early 2000s. And in recent years, many Pacific island countries also embraced market-oriented reforms.

Since the 1980s, there has been growing recognition in development thinking that the quality of governance and institutions matters. In recent years, developing Asia has intensified efforts to strengthen government effectiveness, regulatory quality, the rule of law, and anticorruption policy. These have been complemented by increased efforts to promote transparency and accountability, and widen citizen participation.

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9 World Bank. 1993. *The East Asian Miracle: Economic Growth and Public Policy*. New York: Oxford University Press.

10 Akamatsu, K. 1962. A Historical Pattern of Economic Growth in Developing Countries. *The Developing Economies*. 1 (August). pp. 3–25.

Dynamics of structural transformation

Asia's rapid structural transformation was a key element to its postwar economic success. Most economies followed the experience of high-income countries: agriculture's share of output and employment declines as industry's share grows, followed by "deindustrialization" as services become dominant. All successful Asian economies worked hard on transforming agriculture and traditional rural economies. Urbanization proceeds together with changes in industrial structure—Asia added over 1.5 billion urban residents over the past 5 decades. Manufacturing and many services often benefit from "agglomeration economies" in cities, whereby increased interaction among more and different types of firms and workers in any given location contributes to boosting overall productivity.

Successful Asian economies promoted manufacturing, initially labor-intensive and over time shifting to capital- and skill-intensive industries. Developing manufacturing created opportunities for trade and innovation. Manufacturing exports generated the foreign exchange needed to finance imported capital goods. Also, manufacturing has high income elasticities of demand, which enabled Asian countries to benefit from rising incomes in both domestic and large global markets.

Services continue to gain in importance. In 2018, services accounted for 54% of developing Asia's total value added—although still much smaller than in developed countries. In general, the services sector expands as an economy becomes more developed. Because services are labor intensive, their expansion can help make growth more inclusive. Advances in ICT are transforming and upgrading the entire services sector, and high value-added services build synergies with manufacturing. Services trade is becoming increasingly important along with those embedded in GVCs. Tourism is expanding rapidly, as Asia is increasingly both a desirable destination and a source of travelers.

Modernizing agriculture and rural development

Agriculture plays an important role in any economy. It supplies food, provides labor and intermediate inputs to other sectors, and creates market demand for industrial goods and services. Asia's experience shows that productive agriculture and a dynamic rural economy are key to successful structural transformation and inclusive development.

Land reform—redistributing land to small farmers—was introduced in many countries in the 1950s or earlier, especially in East Asia. It increased production incentives and contributed to agricultural productivity growth. The Green Revolution began in the late 1960s with increased investment in irrigation, improved seed varieties, and the use of modern inputs such as chemical fertilizers and pesticides. It helped Asian farmers substantially increase yields of rice, wheat, and other crops, and allayed fears of widespread food insecurity. Following the Green Revolution, mechanization—such as the increased use of tractors and harvesters—also contributed to agriculture's modernization and structural transformation. In the past half century, developing Asia's per capita production of rice and wheat—the region's two most important staple crops—increased by 41% and 246%, respectively.

Asia's agriculture and rural economies have continued to transform. Food consumption has been changing with rising incomes and urbanization. The share of rice has declined, most notably in East Asia. And with greater dietary diversity, higher-value crop and livestock production now surpasses that of staple food. Agricultural value chains linking production, processing, marketing, and distribution have become more sophisticated, driven by market-oriented reforms and trade liberalization. Increasingly vibrant rural nonfarm economies have helped create rural jobs and raise rural incomes. These have, in turn, contributed to integrating rural and urban economies and narrowing the urban–rural income gaps.

Technological progress as key driver of growth

In its early stage of development, the region's success was primarily based on effective resource mobilization. Subsequently, it began to rely more on technological progress and efficiency gains—also known as "total factor productivity" growth. In the 1960s, Asia's industrial production was dominated by labor-intensive food processing, textiles, and garments. The region has since mastered more complex technologies to produce more sophisticated goods such as automobiles, smartphones, and robots. Asia's leading economies have transitioned from being users of foreign patents to becoming the world's top patent producers as well. In services, Asia is now at the global technological frontier in many areas, with ICT applications revolutionizing business and marketing processes.

Technological progress is not automatic. It requires deliberate effort by entrepreneurs, firms, and governments. Asian economies used a variety of channels and methods to secure, deploy, and innovate technologies. They adopted technologies by obtaining foreign licenses, importing machinery, learning through exporting, attracting FDI, conducting reverse engineering, and receiving technical cooperation aid. As countries mastered imported technologies to produce goods and services, they gravitated toward innovation by building capacity for R&D and fostering industrial clusters.

To support this process, Asian governments made significant efforts to (i) strengthen education and create a growing pool of engineers, scientists, and researchers; (ii) build national innovation systems that include research institutions, national laboratories, and science parks; (iii) introduce legal and institutional frameworks including an intellectual property regime; (iv) support private sector R&D including through tax incentives; (v) invest in ICT infrastructure such as high-speed broadband and mobile networks; and (vi) create a competitive market environment to stimulate innovation.

Education, health, and demographic change

Asia's success in building human capital has been a key contributor to rapid growth and transformation. It also led to better well-being of Asian people. Favorable demographic changes supported Asian growth.

Many Asian countries made education the legal right of every citizen. They used a variety of policy instruments to expand modern education, including public investment in schools, compulsory education, targeted programs to support low-income households, and broad educational reforms. By 2017, almost all countries in Asia and the Pacific had achieved universal or near-universal access to primary education, with many reaching the same for secondary education. Girls have also caught up with boys across many countries, contributing to closing the gender gaps. Tertiary education significantly expanded as well. The region's mean years of schooling for young adults aged 20–24 increased from 3.5 in 1960 to 8.9 in 2010.

The region also took great strides toward improving population health. During 1960–2018, life expectancy rose from 45.0 to 71.8 years and the under-five child mortality rate fell by a factor of six, thanks to improved living standards and investment in public health. Maternal mortality also declined substantially. Targeted health programs such as immunization, investment in safe drinking water and sanitation, and new medicines and medical technologies drove down death rates from preventable causes. Countries improved their overall health systems and have been working toward achieving universal health coverage.

Developing Asia's initially high fertility rates, decreasing mortality across all ages, and increased life expectancy led to rapid population growth and a rising share of the working-age population. The region's population increased from 1.5 billion in 1960 to 4.1 billion in 2018 (a 1.7% annual increase) and its working-age population increased from 855 million to 2.8 billion during the same period (a 2.1% annual increase). The increased share of the working-age population generated a demographic dividend. However, many Asian countries now face challenges from falling fertility rates and aging of population.

Investment, savings, and finance

Asian economies have made large investments in new factories and plants, as well as physical infrastructure such as roads, railways, and ports; and power plants and transmission lines. During 1960–2017, developing Asia's estimated physical capital stock increased from $3.9 trillion to $176.0 trillion (in constant 2011 US dollars). Investments increased productive capacity, supported technological innovation, and promoted industrial upgrading. They also contributed to improving living standards in the region.

Developing Asia's high investments were largely financed by domestic savings of households, corporations, and governments. The region's gross domestic savings as a percentage of GDP increased from 18.0% in the 1960s to 41.0% during 2010–2018. The key drivers of rising savings rates included rapid economic growth, favorable demographics, and policies such as savings promotion programs. Until the 1980s, net official inflows (including bilateral official development assistance [ODA] and multilateral development finance) were the largest source of developing Asia's external financing that complemented domestic savings. Since then, with many economies liberalizing trade and investment, inward FDI has become the largest source of external financing. For some countries, remittances from overseas workers have become a vital and stable source of financing household consumption and investment in micro and small enterprises.

Asia's bank-based financial system played a critical role in channeling domestic savings into domestic investment. In more recent decades, capital markets grew significantly, providing alternative sources of funding for domestic investment with longer maturities. After the 1997–1998 Asian financial crisis (AFC), the Association of Southeast Asian Nations (ASEAN) plus the PRC, Japan, and the ROK (ASEAN+3) worked together to promote local currency bond markets to minimize currency and maturity mismatches. Developing Asian economies have also taken measures to promote access to finance of small and medium-sized enterprises.

Infrastructure development

Large investment in infrastructure, financed by both public and private resources, has been one of the most important characteristics of fast-growing Asian economies. In addition to providing key inputs to growth, access to electricity, roads and railways, ports, safe drinking water, and quality communications are all essential parts of human well-being.

From 1971 to 2018, the region's electricity generation (including Australia, Japan, and New Zealand) increased 16.5 times, compared with a fivefold increase globally. Developing Asia now operates two-thirds of global high-speed rail networks. Access to improved water supply services reached over 90% in 2017, compared with less than 30% in the 1960s in many countries. Progress in telecommunications and ICT infrastructure enabled Asia to develop new services such as e-commerce, mobile payments, ride-sharing, and e-public services. It also increased opportunities for greater financial inclusion as well as better access to health and education.

Strong investment and policy reforms transformed Asia's infrastructure. The region's energy supply mix has diversified from mostly conventional sources such as coal, oil, natural gas, and hydropower, to include rapidly increasing renewables such as wind and solar. Transportation was marked by a shift from rails to roads initially, rapid motorization, and, more recently, more balanced development including new investment in railways and expansion of urban mass transit. In urban water supply, institutional reforms including public–private partnerships and corporatization improved governance, reduced water losses, and enhanced services of water utilities to serve rapidly urbanizing populations. Telecommunications and ICT developed rapidly as a source of economic development. Despite getting a late start, Asia quickly leapfrogged in many areas by adopting modern technologies in all infrastructure sectors.

Trade, foreign direct investment, and openness

In the 1950s and 1960s, many Asian economies adopted an import substitution strategy—but with limited success. From the 1960s, the four NIEs promoted exports as a growth strategy. From the 1970s onward, more countries followed similar strategies. By the 1990s, most Asian economies liberalized trade and investment, using FDI as a source of capital and new technology. To promote exports and FDI, many countries piloted special economic zones, provided tax and financial incentives, and launched reforms to improve the overall business environment.

Developing Asia's exports and imports both grew annually at 11% during 1960–2018, and the ratio of trade (exports plus imports) to GDP rose from 20% to 53%. There was also a significant shift in the composition of exports, from mostly raw materials to manufactured goods and from light to heavy industrial products along with high-technology exports. Inward FDI expanded rapidly from the second half of the 1980s, initially to Southeast Asia. Today, the region is one of the world's most popular FDI destinations. Asia is also becoming an important source of outward FDI.

Global and regional trade has entered a new phase since the early 2000s, as tariffs worldwide fell dramatically, free trade agreements proliferated, and the PRC and other countries joined the World Trade Organization (WTO). Outward-oriented trade reforms reinforced the increasing trend of FDI inflows to Asia and boosted the region's trade. Global and regional multinational firms increasingly outsourced production to Asia, integrating the region's economies more deeply into GVCs. More recently, services are increasingly traded as a part of GVCs.

Pursuing macroeconomic stability

Over the past half century, developing Asia had less growth volatility, lower average inflation, and fewer economic crises than other developing regions in the world. From the 1980s, monetary policy tools shifted from direct control over monetary aggregates toward using policy rates and open market operations, as financial markets deepened. Until the demise of the Bretton Woods system in the 1970s, countries controlled capital flows, adopted fixed exchange rate regimes, and conducted independent monetary policies. After the collapse of the Bretton Woods system, developing Asian economies started liberalizing capital markets, but continued to strongly manage exchange rates.

The 1997–1998 AFC served as a wake-up call for Asian policy makers. Financial liberalization, de facto currency pegs, and optimism over the region's continued high growth invited large capital inflows in the early 1990s. When the concern about the economic and financial sustainability emerged, sudden reversals of capital inflows led to currency and banking crises. Currency and maturity mismatches related to external borrowing and inefficient investment it financed were among the root causes of the crisis. Policy makers responded by adopting more flexible exchange rates, giving central banks greater independence, and increasing fiscal prudence. The crisis also underscored the importance of macroprudential measures to help curb excesses—such as foreign currency loan exposures or credit growth. The ASEAN+3 Chiang Mai Initiative emerged as a regional cooperative response to enhance financial resilience.

The reforms that followed the AFC provided a foundation for sustained high growth and cushioned the region from the impact of the 2008–2009 global financial crisis (GFC). The GFC was caused by excess borrowing and risky investment by many systemically important financial institutions in advanced countries. It also reflected widespread failure in financial regulation and supervision. In contrast to the severity of the impact on advanced economies and some other regions of the world, the GFC's damage to developing Asia was relatively moderate.

The GFC provided further impetus for strengthening macroeconomic management and financial regulation in developing Asia. Over the past decade, Asia has used macroprudential policies more extensively than any other region in the world. Regional financial safety nets were further strengthened under the Chiang Mai Initiative Multilateralization and with the establishment of the ASEAN+3 Macroeconomic Research Office in 2011 to provide macroeconomic surveillance.

Poverty reduction and income distribution

Developing Asia's rapid growth has led to a dramatic reduction in extreme poverty. At the $1.90 per day international poverty line, the poverty rate fell from 68% in 1981 to less than 7% in 2015. More than

1.3 billion Asians were lifted out of deprivation, making the region the largest contributor to global poverty reduction. Poverty reduction helped create an environment for maintaining political and social stability—a precondition for sound development—and led to the emergence of a middle-income class that, in turn, enabled domestic consumption-led growth.

Rapid economic growth has been the key driver of Asia's poverty reduction. The development of modern manufacturing and services created large amounts of better-paying jobs to absorb rural surplus labor. Policies that aimed to raise the income-earning capacity of poor and low-income households have also played a critical role. These policies included land reform; the introduction of Green Revolution technologies; education and health programs; and measures to broaden access to finance, infrastructure, and markets.

However, developing Asia's progress in improving income distribution has been mixed. During the 1960s–1980s, most developing Asian economies managed to keep income inequality stable, regardless of the initial level, despite large differences in the pace of economic growth. Many economies in East Asia and Southeast Asia grew rapidly with income inequality stable or declining somewhat—a pattern known as "growth with equity," benefiting from expanding labor-intensive manufacturing exports and inclusive policies. During the same period, income inequality in South Asia was generally stable, despite its slow growth.

Since the 1990s, rapid growth and poverty reduction have been accompanied by rising income inequality in many Asian countries. In developing Asia, technological progress and globalization led to rising wage differentials between skilled and less-skilled workers, even though they increased incomes for both. They also increased capital earnings more than labor income. Further, technological progress and globalization created opportunities for entrepreneurs to gain from the "first mover effect" and brought significant benefits for large landowners in newly favored locations. Widening urban–rural income gaps and increasing regional disparities, along with unequal access to opportunity, also contributed to rising income inequality. In response, many countries have adopted "inclusive growth" as a key goal of development strategies in recent years.

Gender and development

The Asia and Pacific region has made important progress in narrowing gender gaps and reducing inequalities in areas such as education, health, and employment. This is in recognition of gender equality as a means to achieving better development outcomes as well as an intrinsic right and a prerequisite for a just and inclusive society.

Access to education for women and girls has improved considerably. School enrollment rates for girls rose faster than those for boys, leading to gender parity in primary and secondary school enrollment in many countries. In 1960, women received fewer years of schooling in most Asian countries; in 2010, they completed more years in school than men in about half of the countries.

In the area of health, women's life expectancy also improved significantly. In 1960, women in developing Asia lived 1.8 years longer than men on average; by 2018, the gap increased to 3.8 years. There has also been a consistent decline in maternal mortality. In addition, female labor force participation increased substantially over the past half century—although gender gaps persist.

These advances have been driven by several factors. Rapid economic growth increased economic opportunities for women, particularly employment in wide-ranging areas. Government interventions in education and health have been effective. Legal and regulatory reforms, supported by strong policy commitments and complemented by shifts in social norms, have helped create an enabling institutional environment for gender equality in basic rights, voice, and decision-making power within households, firms, and societies.

Environmental sustainability and climate change

Asia's economic success during much of the past half century has come at the expense of the environment—under an approach of "growth first, cleanup later." Growth has been associated with increasing air and water pollution and land degradation. This led to millions of premature deaths each year, ecosystem fragility, and the declining productive potential of land and marine resources. Although the region has historically had per capita greenhouse gas emissions well below the world average, by the early 21st century, its emissions were growing fastest among the world's regions. Asia's ability to sustain economic progress in the future will be increasingly challenged by climate risk and resource depletion.

Facing these challenges, Asian countries have begun to take major steps to protect the environment, mitigate greenhouse gas emissions, and adapt to climate change. Key environmental policies have been adopted across the region in such areas as investment in renewable energy and public transport, framework legislation, safeguard policies, and air and water quality standards. Countries have also made greater use of market-based instruments such as tradable permits and payments for ecosystem services. The region is becoming a leading exporter of green products and services, which help improve environmental performance globally.

Developing Asia has been increasingly engaged in international efforts to solve global environmental challenges, most notably climate change. Such efforts are critically important, as the region can benefit substantially from coordinated approaches to global climate challenges. Nearly all countries in the region are party to the three major conventions and agreements on climate change—the 1992 United Nations Framework Convention on Climate Change, the 1997 Kyoto Protocol, and the 2015 Paris Agreement. ADB and other multilateral development banks (MDBs) are helping countries to achieve their nationally determined contributions under the Paris Agreement, through financing climate mitigation and adaptation and supporting capacity building.

The role of multilateral and bilateral development finance

Bilateral ODA and support from MDBs have made important contributions to the region's development. They contributed to resource mobilization, supported technological cooperation, and promoted knowledge sharing. Traditional bilateral donors, such as the US, Japan, Australia, New Zealand, the ROK, and European countries, have made large contributions. In recent years, the PRC, India, Thailand, and other emerging economies are becoming active donors.

In the early stage of development, developing Asia had to deal with capital shortages due to low domestic savings and high investment needs. Bilateral ODA and MDBs, including ADB and the World Bank, provided finance together with knowledge, initially for infrastructure development, and increasingly for health, education, and other social sectors. To enhance aid effectiveness, Asian countries built absorptive capacity and maintained ownership by aligning external support with national development strategies.

With the rising share of FDI and other sources of external finance, bilateral ODA and MDBs have reoriented their priorities, paying greater attention to policy reform and improved governance of countries. In recent years, development assistance is increasingly focused on supporting the global agenda such as the Sustainable Development Goals and the Paris Agreement on climate change.

Strengthening regional cooperation and integration in Asia

Regional cooperation and integration (RCI) in Asia and the Pacific has evolved during the postwar era. It was initially motivated by the need to secure peace and security after years of war and conflict across the region, and to move beyond former colonial links. The RCI scope has since expanded to promoting intraregional trade and investment and supporting regional public goods.

ASEAN is a successful example of RCI. It has worked toward an "ASEAN Economic Community" through cooperation in trade, investment, and harmonization of standards. It has also collectively promoted sound, market-oriented policies over time, engaging new members. Today, ASEAN plays an important role in providing a platform to draw in countries outside Southeast Asia for regional financial cooperation, wider trade agreements, and dialogue on broad regional and international issues.

In South Asia, the RCI priority is on high-quality connectivity through transport, energy, and trade facilitation. Central Asia is moving from cooperation on infrastructure connectivity to developing regional economic corridors and knowledge sharing in various areas. The Pacific island countries have prioritized trade, maritime and digital connectivity, the management of shared ocean resources, sustainable tourism, and capacity development for private sector investment.

The establishment of ADB in 1966 can be regarded as a prime example of RCI. It reflected the strong will and efforts of people in and outside Asia and the Pacific to work together for the development of the region. To support RCI, on its part, ADB has initiated several subregional programs such as the Greater Mekong Subregion (GMS), the Central Asia Regional Economic Cooperation (CAREC), and the South Asia Subregional Economic Cooperation (SASEC).

1.5 Asia's remaining development agenda

Despite its rapid economic growth and transformation, Asia's development gaps with advanced countries remain large. In 2018, developing Asia's average per capita GDP in US dollars (at market exchange rates) was just 14% of the OECD average. Asian countries need to tackle a wide range of remaining and emerging development challenges.

Make markets work better and strengthen governance and institutions. Asian countries should continue to reform their labor market, finance, and trade and investment regimes, to eliminate market rigidities and distortions. They can further promote development by supporting innovation and R&D, investing in higher education, maintaining an enabling environment for private sector investment, and combating anticompetitive practices. Depending on country needs, state-owned enterprises must continue to reform. Moreover, countries should improve regulatory quality, better control corruption, widen participation, and increase accountability.

Support the transition to higher income. Moving from middle to high income and overcoming the so-called "middle-income trap" require new and different drivers of growth, with a more innovative and knowledge-based economy. Upper-middle-income countries should also address rising income inequalities including gaps between advanced and lagging regions. Low-income countries should continue to focus on improving economic fundamentals, including investing in infrastructure, broadening access to education and health, and improving the investment climate.

Support the continuing agricultural and rural transformation. Countries should continue to promote agricultural productivity growth through the application of new technologies and further implementing land reform and consolidation. They should improve food value chains and agribusiness, while developing and enforcing food safety and nutrition standards. They must address remaining agricultural price distortions and respond to emerging environmental challenges, including climate change.

Invest in technological progress. To continuously adopt new technologies and promote innovation, Asian countries should develop a diverse cadre of educated and skilled labor force. They must invest in and manage the expansion of digital infrastructure, continue to support R&D, and foster links between the research community and business. They should also strengthen institutions that support innovation, including protecting intellectual property rights and promoting fair competition.

Narrow the gap in human capital and respond to demographic change. In education, future challenges include achieving universal access to secondary education, expanding tertiary education, and improving education quality. In health, governments must address the growing prevalence of noncommunicable diseases and expand universal health coverage. To reap the demographic dividend, countries with growing working-age population should ensure adequate investment in human capital and the creation of quality jobs. Countries should support the labor market participation of women through policies targeting the care economy, redistribution of unpaid care work within households, and family-friendly work policies such as provision of childcare facilities and paid parental leaves (e.g., maternity leave). For countries with aging populations, technology can help address the issue of shrinking working-age population and support caring for the aged. The large demographic diversity in Asia means both young- and older-aged countries can benefit from cross-border labor mobility.

Better balance savings and investment and strengthen the financial sector. Some Asian countries need to increase household consumption, while others should increase domestic savings and investment. To mobilize savings for productive investment, Asian countries must continue to diversify their financial systems, deepen capital markets with greater participation of institutional investors, promote financial inclusion, and strengthen financial regulations to mitigate risks. They must embrace financial innovation while maintaining stability. They can also benefit from greater regional financial cooperation.

Address infrastructure gaps. In 2017, over 400 million Asians remained without electricity, 300 million lacked access to safe drinking water, and 1.5 billion lacked access to sanitation facilities. Developing Asia needs more investment in transport, energy, urban water, and ICT. Continued capacity development and institutional reform can boost efficiency and deliver high-quality services. Private sector participation is essential to narrow the infrastructure gap. Also, regional cooperation has an important role to play in improving regional connectivity across Asia.

Maintain open trade and investment regimes. Developing Asia's economic success over the past half century owes much to trade and inward foreign investment. Asian governments should continue to promote open trade and investment by further reducing tariff and nontariff barriers, promote services trade including e-commerce and digital trade, and support small and medium-sized enterprises' access to international markets. They should work toward expanding regional and supra-regional arrangements and renew efforts to support the multilateral trading system.

Maintain macroeconomic stability. Asia has benefited from prudent macroeconomic and financial sector policies. However, policy makers should continue to be vigilant. Policy priorities for maintaining macroeconomic stability include strengthening public finance, making greater use of macroprudential policies, and maintaining exchange rate flexibility. Countries must closely monitor capital flows and, if necessary, manage market sentiment including using measures to smooth foreign exchange volatility caused by external shocks.

Eradicate poverty and reduce inequality. At the higher $3.20 per day poverty line typically used in lower-middle-income countries, 29% of Asians remain poor. To eradicate poverty and reduce inequality, governments must create more quality jobs, increase spending on education, expand universal health coverage, strengthen social safety nets, increase the role of taxes in income redistribution, reduce urban–rural income gaps and regional disparities, and continue governance reforms to promote equal opportunity.

Reduce gender gaps. Gender equality is an unfinished agenda. Policy priorities include continued investment in women's education, especially in science, technology, engineering, and mathematics (STEM), and broadening access to sexual and reproductive health. Governments must continue to invest in the basic infrastructure that meets the needs of women. They should bolster women's labor market participation and nurture female entrepreneurship and corporate leadership. Further legal and regulatory reforms must contribute to eliminating gender gaps in social, economic, and political representation.

Protect the environment and tackle climate change. Environmental degradation and climate change threaten the sustainability of Asian development. Asian countries must scale up efforts to protect the environment and act now for climate change mitigation and adaptation. They must (i) substantially invest in renewable energy, energy efficiency, sustainable public transport, and climate-resilient infrastructure; (ii) attract private sector investment for sustainable infrastructure; (iii) further strengthen framework legislation, safeguard policies, and air and water quality standards; (iv) ensure prices reflect environmental costs and climate change externalities; (v) build environmental governance capacity; and (vi) intensify regional cooperation on environmental issues.

Enhance bilateral and multilateral development partnerships. Developing Asia has benefited from development cooperation with both bilateral and multilateral partners in access to development finance, policy advice, knowledge exchange, and capacity building. Governments should continue to work with development partners and improve the effectiveness of development assistance.

Further strengthen regional cooperation and integration. Building on what has been achieved, greater cooperation is needed in conserving and managing shared natural resources—such as rivers, oceans, and forests, and in agriculture including policies and research. More focus on people is required. Promoting sustainable regional tourism is a priority. Countries should cooperate to amplify Asia's voice on global affairs, commensurate with its increased importance in the global economy. There is no question that governments and people must continue to make the utmost efforts to maintain peace and stability in the Asia and Pacific region.