

LABOR MIGRATION IN ASIA

IMPACTS OF THE COVID-19 CRISIS AND THE POST-PANDEMIC FUTURE







International Labour Organization

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Organization

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CONTENTS

Tab	les, Figures, and Boxes	iv
Fore	eword	vi
Ack	nowledgments	viii
1	Trends in Labor Migration in Asia Nilim Baruah, Jonathan Chaloff, Philippe Hervé, Hironori Honsho, Shabari Nair, and Pitchaya Sirivunnabood	1
1.1	Introduction	1
1.2	The COVID-19 Pandemic in Asia and its Impact on Labor Migration and Migrant Workers	1
1.3	Labor Migration in Asia—Medium-term Trends	16
1.4	Remittance Flows to Asian Countries	26
1.5	Conclusion	33
2	The Future of Labor Migration in Asia: Post-COVID-19 Pandemic Nilim Baruah, Jonathan Chaloff, Jean-Christophe Dumont, and Rachael Kawasaki	38
2.1	Introduction	38
2.2	Medium-term Economic Developments and Possible Impact on Labor Migration	38
2.3	Longer-term Effects of Demographic Changes and Technological Changes	44
2.4	Building Back Better: Rights and Standards for Migrant Workers	50
2.5	Enhancing the Effectiveness of Legal Pathways and Ensuring Protection of all Migrant Workers	54
2.6	Conclusions	56
3	Migtech: How Technology is Reshaping Labor Mobility and the Landscape of International Migration Aiko Kikkawa, Cindy Jane Justo, and Pitchaya Sirivunnabood	60
3.1	Introduction and Definition	60
3.2	Mapping Migtech through the Migration Cycle	61
3.3	Evaluation of Migtech	85
An	nex	
1	Economy-specific Notes	103
2	Comparative Tables	128

TABLES, FIGURES, AND BOXES

TABLES

1.1	Outflows of Workers from Selected Asian Countries, 2009–2019	17
1.2	Flows of Workers to GCC Countries, 2019	18
1.3	Flows of Workers to ASEAN Countries, by Origin and Destination, 2019	19
1.4	Migration to OECD Countries, Asian Economies of Origin, 2017–2018	21
1.5	Top 15 OECD Countries for Asian Migration, 2018–2019	23
1.6	Labor Market Indicators for Native-born and Foreign-born in the United States, Canada, Australia,	
	and the European OECD countries	25
1.7	Share of Remittances in Gross Domestic Product by Economy, 2000 to 2020	29
1.8	Remittance Loss Estimates by Recipients	31
1.9	Impact on Remittance Inflows to Asia and the Pacific by Source Region	31
2.1	IPCC 2014 Climate-change Hazards and Risk Levels in the Near Term	47
2.2	The Long-term Climate Risk Index (CRI): The 10 Countries most Affected from 1999 to 2018	48
3.1	Examples of Migtech at the Predeparture Stage	66
3.2	Examples of Migtech at the Destination	73
3.3	Examples of Migtech at the Return and Reintegration Stage	81

FIGURES

1.1	COVID-19 Reported Infections and Deaths in Asian and GCC Countries,	
	per million inhabitants, as of 7 December 2020	2
1.2	Decline in Labor Migration Inflows to Asian Destination Economies	4
1.3	Changes in Stock of Foreign Workers, 2019–2020	5
1.4	Changes in Outgoing Deployment, 2019–2020	7
1.5	International Migrant Stock: Asian-born in the World	16
1.6	Total Outflows of Workers from Selected Asian Countries, 2007–2019	17
1.7	Share of Women among Labor Migrants, by Origin Country, 2016–2019, Selected Asian Countries	19
1.8	Migration Flows from Asia to OECD Countries, 2000–2019	20
1.9	Work Permits for Highly Qualified Migrants, United States and European Union, by Region of Origin	24
1.10	Top Asian Destination Countries for Internationally Mobile Students, 2015–2019	26
1.11	Remittances to Asia, 2000–2020	27
1.12	Share of Asia and the Pacific Economies in Global Remittances	28
1.13	Remittance Inflows in Asia and the Pacific	30
1.14	Average Transaction Cost of Sending \$200 Remittances to a Specific Country	32
2.1	Potential Support Ratio (number of people aged 25–64 over those aged 65+), 2020	45
2.2	Employment by Gender and Risk of Automation by 2035, ASEAN-5	46
3.1	ICT Developments by Region	62
3.2	Migration Cycle	64

BOXES

Decline in Employment in Destination Countries in Asia in 2020	6
Lessons from Return and Repatriation Exercises	10
Additional Vulnerabilities of Migrant Workers due to the Employment Impact of the COVID-19 Pandemic	12
Singapore's Response to COVID-19 in Migrant Workers' Housing	15
Highly-Skilled Migration from Asia to OECD Destinations	23
Costs of Sending Remittances	32
Potential Shifts in Outflows from Hong Kong, China	40
Potential Increase in the Number of Migrant Workers in Japan	41
Climate Change and Migration in Asia	48
	Decline in Employment in Destination Countries in Asia in 2020 Lessons from Return and Repatriation Exercises Additional Vulnerabilities of Migrant Workers due to the Employment Impact of the COVID-19 Pandemic Singapore's Response to COVID-19 in Migrant Workers' Housing Highly-Skilled Migration from Asia to OECD Destinations Costs of Sending Remittances Potential Shifts in Outflows from Hong Kong, China Potential Increase in the Number of Migrant Workers in Japan Climate Change and Migration in Asia

2.4	Health Screening and Migration	49
2.5	Emergency Preparedness Planning in a Crisis Context	50
2.6	ASEAN Forum on Migrant Labour—Recommendations on Migrant Workers and the Future of Work	55
3.1	Ways Technology Facilitates Migration	63
3.2	Needs of Migrants at the Predeparture Stage	65
3.3	Needs of Migrants at Post-Arrival Stage	71
3.4	Needs of Migrants at the Return and Reintegration Stage	80
3.5	Use of Migtech and Digital Tools for Migrant Workers during the COVID-19 Pandemic	83
3.6	Digital Identity Solutions and Blockchain Technology in Migration	89

FOREWORD

n 2020, the usual drivers of migration were disrupted by a global pandemic caused by the novel coronavirus disease, COVID-19. The pandemic influenced most migration movements and corridors in the world, driving down migration. In Asia, migration corridors that are normally very active suddenly closed for several months. Origin and destination countries applied strict entry rules to control the pandemic within their borders. Deployment and outflows of migrant workers fell across the region, particularly during the first months of the pandemic. At the same time, in response to the spread of the virus, economic restrictions, including lockdowns, were implemented in host countries, which led to the return of many migrant workers to their home countries, including those whose jobs vanished. As a result of the disruptions, migrant remittances were projected to decrease by around 7.4% Asia in 2020.

The pandemic has had an unprecedented impact on economies, businesses, and workers, and in Asia as well as some other regions, migrant workers have been among the most affected. Migrants have been more exposed to the risk of infection and, in Organisation for Economic Co-operation and Development (OECD) countries, were twice as exposed to infection as the native born. Immigrants and migrant workers are concentrated in essential occupations that cannot be undertaken from home, making migrants less likely to be able to telework. Glaring examples have been reported in Asia and elsewhere of migrant workers unable to socially distance at the workplace or left without sufficient personal protection equipment. Second, migrant workers have been put at increased risk of COVID-19 infection due to substandard and crowded accommodation. Finally, there has often been differential treatment between nationals and migrant workers in social protection and relief and income support measures.

Despite these negative impacts, on the health front, at least, there has been a robust response on the part of governments to control and reduce infections, and migrants have also benefited from the easing of work permit extensions and, in some cases, the regularization of their employment. Governments have also recognized the need to improve the standard of accommodation provided by employers. There are now opportunities to "build back better."

Since 2011, the Asian Development Bank Institute (ADBI), the OECD, and the International Labour Organization (ILO) have been collaborating to organize the Annual Roundtable on Labor Migration in Asia. The 10th anniversary of this event was marked in February 2020 in Bangkok, on the theme "Labor Migration in Asia: Future of Labor Migration in Asia – Challenges and Opportunities in the Next Decade."

ADBI, OECD, and ILO have also prepared this joint publication. The 2021 edition, "Impacts of the COVID-19 Crisis and the Post-Pandemic Future," has three chapters and a statistical annex providing the most complete comparative data on international labor mobility in Asia. The joint publication includes the major outcomes from the 10th Roundtable on Labor Migration in Asia. This 2021 publication has also pivoted to look at trends and the future of labor migration in light of the disruptions and developments related to the COVID-19 pandemic.

Chapter 1 reviews labor migration and remittances trends in Asia and migration flows from Asia to OECD countries. It provides an overview of the impact of the pandemic on flows, evidence of the pandemic's impact on migrants more broadly, and the policy responses in origin and destination countries to the pandemic-related upheaval.

Chapter 2 focuses on the future of labor migration in Asia and examines medium- and longer-term factors that will help shape labor migration in Asia. The chapter also identifies some of the main concerns that emerged during the pandemic in terms of the conditions and rights of migrant workers, and points to some key areas to build back better.

Chapter 3 highlights the use of technology to facilitate labor mobility and evaluates the role of digitalization in changing the landscape of international migration. The chapter provides the definition and scope of "migtech" and its associated initiatives and applications, mapping it through the migration cycle. It also identifies opportunities and challenges associated with migtech and suggests some key policy areas to better facilitate the uptake and effective implementation of migtech tools and platforms.

The current economic and social transitions in the global economy, as well as the unprecedented COVID-19 pandemic, have sharply affected labor migration in Asia and put pressure on policy makers and regulators to develop timely policy responses and innovative approaches for guaranteeing the effective management of labor migration. We hope that this publication will provide useful policy guidance and statistical reference to practitioners, authorities, and policy makers. Further, we extend our sincere gratitude to the organizing team for their efforts and contribution in preparing this joint publication and the Annual Roundtable on Labor Migration in Asia.

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Deputy Regional Director Regional Office for Asia and the Pacific International Labour Organization his report partly draws on the discussions that took place at the 10th ADBI-OECD-ILO Roundtable on Labor Migration: Future of Labor Migration in Asia: Challenges and Opportunities in the Next Decade, held in Bangkok on 6–7 February 2020. In response to the COVID-19 pandemic, the publication also focuses on the pandemic impacts on labor mobility. Both the roundtable and this report were organized and coordinated by a team consisting of Pitchaya Sirivunnabood from the Asian Development Bank Institute (ADBI), Jean-Christophe Dumont and Jonathan Chaloff from the Organisation for Economic Co-operation and Development (OECD), and Nilim Baruah from the International Labour Organization (ILO).

This publication benefited from contributions from a number of authors: Nilim Baruah and Shabari Nair of ILO, Jonathan Chaloff, Philippe Hervé, and Hironori Honsho of the OECD, and Pitchaya Sirivunnabood of ADBI prepared Chapter 1; Nilim Baruah of ILO and Jonathan Chaloff, Jean-Christophe Dumont, and Rachael Kawasaki of the OECD prepared Chapter 2; Aiko Kikkawa and Cindy Jane Justo of the Asian Development Bank (ADB), and Pitchaya Sirivunnabood of ADBI prepared Chapter 3. Each chapter benefited from peer review by the authors of the other chapters and the organizing team.

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CHAPTER 1

Trends in Labor Migration in Asia

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1.1 Introduction

This edition of the annual Asian Development Bank Institute–Organisation for Economic Co-operation and Development–International Labour Organization (ADBI–OECD–ILO) report on labor migration in Asia reports on a world where mobility has been sharply constrained. Trends in labor migration are usually defined mainly by the economic conditions and policy orientation in destination countries. This was the case in 2019, where labor migration in Asia continued to respond to labor demand in destination countries and policy developments.

However, in 2020, the usual drivers of migration were disrupted by the global pandemic caused by the novel coronavirus disease, COVID-19. The pandemic influenced most migration movements and corridors in the world, driving down movements. In Asia, migration corridors which are normally very busy, suddenly closed for several months. Origin and destination countries applied strict entry and/or exit rules, to control the pandemic within their borders.

The challenge for any portrait of labor migration trends in Asia in 2020 is to work with limited statistical information available. This chapter begins with an overview of the impact of the COVID-19 pandemic and the latest data available on migration trends within and from Asia during 2020, as well as the impact on employment conditions and the health situation of migrant workers. Section 1.3 describes labor migration flows from Asia to the Middle East and the Association of Southeast Asian Nations (ASEAN) countries, followed by the migration flows of Asian citizens to OECD countries. The chapter then examines the integration of migrants from Asia in the labor market of OECD countries. International student mobility is then discussed. The last section analyzes the evolution of remittances sent to Asia, with specific reference to the impact of the COVID-19 pandemic on 2020 remittance flows.

1.2 The COVID-19 Pandemic in Asia and its Impact on Labor Migration and Migrant Workers

By early 2021, nearly 1 year after the start of the pandemic, Asian countries were at different stages in battling the COVID-19 pandemic and its socioeconomic impacts. Some countries in the region have been relatively successful in containing the virus outbreak (Figure 1.1). Others have been less successful. While the pandemic was first reported in the People Republic of China (PRC), it rapidly spread throughout the world. The PRC managed to largely contain the virus relatively early on, and in terms of the proportion of the population who were infected with COVID-19, the country appears to be once of the least-affected in the region. Japan and the Republic of Korea, despite cases early in 2020, have largely controlled the spread of the virus, and have low relative reported rates and deaths. The virus has struck more severely at some of the main destination and origin countries. Singapore, for example, had one of the highest reported rates of infection, mainly among migrant workers. Deaths in the region—relative to the population—are highest in India, the Philippines, Indonesia, Bangladesh, and Pakistan. However, Asian countries have not been as severely affected as the Gulf Cooperation Council (GCC) countries, where infection and death rates have generally been much higher.

Figure 1.1: COVID-19 Reported Infections and Deaths in Asian and GCC Countries, per million inhabitants, as of 7 December 2020



continued on next page



Figure 1.1 continued

ASEAN = Association of Southeast Asian Nations, Lao PDR = Lao People's Democratic Republic, GCC = Gulf Cooperation Council, PRC = People's Republic of China, UAE = United Arab Emirates.

Source: WHO Coronavirus Disease (COVID-19) Dashboard.

1.2.1 The Impact of COVID-19 on Deployment of Labor Migrants in Asia

With the spread of the pandemic, a number of factors combined to reduce deployment of labor migrants in Asia. First, Asian countries introduced visa issuance and border restrictions to control the spread of the pandemic. Second, some Asian countries suspended deployment to destinations affected by the pandemic. Third, business closures and slowdowns led to reduced demand. Finally, commercial flight schedules limited opportunities to travel even when other restrictions were not in place.

The main destinations in Asia saw declines in inflows and in stock of foreign workers

Entries to Japan were sharply curtailed by pandemic-related restrictions. These restrictions are visible in the figures for April to August 2020, when the number of foreigners entering Japan on work visas, excluding re-entry, decreased from 123,000 to 627 compared to the same period in 2019 (Figure 1.2, Panel A). The number of newly arrived technical intern trainees, in particular, dropped significantly, with a figure of only 0.4% relative to the same period in 2019. The admission of technical interns and specialized skilled workers resumed after the northern hemisphere summer, although newly arriving migrant workers remained subject to quarantine.

There was also a significant decrease in the number of migrants entering the Republic of Korea (Figure 1.2, Panel B). From March to June in 2020, the admission of E-category visas (for different types of employment) was 16,400, about 80% fewer than the same period of 2019 (84,200). Looking specifically at the admission of nonprofessional workers participating in the Republic of Korea's employment permit system, entries from January up to August stood at 5,600. The annual quota foresees 56,000 new workers under the scheme, but admissions fell short of this target by more than 30,000, deferring the arrival of these workers to 2021.

Malaysia saw a sharp decline in the issuance of new visas to expatriate workers arriving, but only in April and May; visa issuance resumed in June 2020 (Figure 1.2, Panel C). Malaysia suspended the admission of foreign nationals in March 2020, but gradually eased these restrictions for certain





Source: Official data from national authorities.

categories, such as employment pass categories I-III and professional visit passes, subject to specific individual authorization. The admission of less-skilled workers holding temporary employment passes, which include domestic workers as well as those in agriculture, manufacturing, and services, remained suspended. The registration of work permits for foreigners in Thailand-excluding certain categories of persons already in the country-fell to about one-third their pre-pandemic levels starting in April 2020 (Figure 1.2, Panel D). Admissions over the first semester of 2020 to Hong Kong, China fell. In the first 9 months of 2020, the number of employment and investment visas issued in Hong Kong, China fell 61%, from 31,300 to 11,500 (Figure 1.2, Panel E).

The inflows of workers to the GCC countries also fell. For example, Saudi Arabia issued 943,000 work visas in the first semester of 2019 and only 633,000 in the first semester of 2020, a 33% decline. Looking only at the second half of 2020, work visa issuance was down 91% relative to the same period in 2019, with only 50,000 issued (OECD, ILO, UNHCR, and IOM 2020). The United Arab Emirates suspended issuance of entry permits from March until September, and only started issuing work permits again in October 2020.

For some destinations, inflow data are not available, but a decline in the stock of migrant workers was visible (Figure 1.3). In Singapore, the number of migrant workers fell by more than 5% in the first half of 2020-equivalent to more than 70,000 fewer migrant workers. The decline was greatest (8.5%) among work permit holders in jobs other than domestic work and construction. In Taipei, China, the decrease was about 2% in the course of the first 9 months of 2020–20,000 between February and September-but the numbers began to increase again later in 2020, resuming the longstanding trend of steady increase.

Most destination countries have been slow to reopen. In part, this was due to the global economic downturn, which depressed demand (Box 1.1), but the primary barrier to migration has been concerns over the spread of the virus. For example, the Republic of Korea maintained strict regulations on visa issuance; short-term visa validity was temporarily suspended (Government of the Republic of Korea 2020). Japan started to allow business people to enter the country from July, although initially limiting travel from some countries, including from Thailand and Viet Nam (Government of Japan, Ministry of Foreign Affairs 2020).



Figure 1.3: Changes in Stock of Foreign Workers, 2019–2020 Jan = 100

Box 1.1: Decline in Employment in Destination Countries in Asia in 2020

Employment in the host economies of Asian migrant workers contracted significantly. In Asia and the Pacific, the total working hour losses for the second quarter of 2020 are estimated by the International Labour Organization at 15.2%, or 265 million full-time equivalent jobs. In the Arab states the estimate was a decline of 16.9% or 10 million full-time equivalent jobs. In Malaysia, for example, hours worked declined by 28% in the second quarter; in Thailand, by 13%. For the third quarter of 2020 there was an estimated decline in working hours of 10.7% for Asia and the Pacific and 12.4% for the Arab states¹ (ILO 2020a).

¹ All figures on losses in working hours are compared against the last quarter of 2019.

The main origin countries in Asia saw declines in outflows

Deployment and outflows of migrant workers fell across the region, especially during the first months of the pandemic. The Philippines, the single largest origin country for the deployment of migrant workers, saw sharp declines (Figure 1.4, Panel A). The number of new hires deployed from January to May was only 71,000, about 60% lower compared to the 174,300 deployed in the same period of 2019. In April 2020, according to the Philippines Overseas Employment Agency (POEA), deployment was largely halted: only 47 new hires, compared with 30,600 in April 2019.

India also saw deployment numbers collapse (Figure 1.4, Panel B). The outflow of workers in India between April and September 2020 was only 1.6% of the same period in 2019, and decreased from 175,400 to 2,900.

Outflows from Bangladesh in March 2020 fell slightly from 58,500 to 52,000 compared with the previous year and then outflows were suspended from April to June due to COVID-19 (Figure 1.4, Panel C). They rebounded in December 2020 to almost half the December 2019 level.

In Pakistan, figures were sharply down. In 2020, there were 225,000 deployed, down from more than 625,000 for 2019. Deployment diminished in March and started to pick up again only in December 2020. These official figures are reflected in the lower deployment by recruitment agencies: the Pakistan Overseas Employment Promoter Association estimated in early August that between March and July 2020, about 200,000 workers had not been able to go abroad for employment.

Sri Lanka saw deployment numbers drop sharply. March 2020 departures were half of those forecast, and by the end of May the disruption was estimated to have reduced the outflow of workers by about 38,000 (Weeraratne 2020). Nepal also saw a decline. Official outflows (both new and renewed contracts) for fiscal year 2019–2020, which ended in mid-July 2020, were down 28% from the previous fiscal year, with the bulk of the decline explained by the suspension in deployment from March 2020.

Viet Nam also saw a sharp decline in outgoing workers (Figure 1.4, Panel D). Exits in the second quarter of 2020 were just 6% of those in the first quarter; even with a slight increase in the third quarter, the total deployment for the first three quarters was just 41% of the 2019 figure—60,000 fewer Vietnamese migrated for employment in that period.

In Indonesia, deployment numbers stood at only 38% of the previous year (Figure 1.4, Panel E). Both "formal" and "informal" workers were affected; the latter are employed by individuals—for example,



Figure 1.4: Changes in Outgoing Deployment, 2019–2020 Jan = 100

OFW = overseas foreign worker, PRC = People's Republic of China.

2019 — 2020

Sources: Official data from national authorities (Bangladesh, India, Indonesia, People's Republic of China, Philippines, Thailand); Viet Nam: Calculations from Viet Nam Association of Manpower Supply (2020) and Ministry of Labour, Invalids and Social Affairs (2019a, 2019b, and 2020).

households employing domestic workers. Formal worker deployment decreased from 134,000 to 36,000 (-73%) and informal worker deployment from 142,000 to 69,000 (-52%) over the same period. The greatest decline was seen in April 2020, when outflows were about 90% lower than the level recorded the previous April (2,300 compared to 25,500), and outflows remained at a very low level through October, when they started to pick up again.¹

The number of workers Thailand sent abroad during the first 6 months in 2020 decreased by 60.9%, from 62,500 to 24,500, compared to the previous year, including re-entries. First-time deployments fell by 62%, from 31,400 to 11,900 (Figure 1.4, Panel F). Thailand banned deployment to certain destinations in the OECD, delaying for example the deployment of seasonal berry pickers to Nordic countries.

While figures on outflows of overseas contract workers deployed by the PRC are not available, the stock of such workers overseas fell. According to the Ministry of Commerce, the number of workers overseas dropped from 1,013,000 to 644,000 between November 2019 and July 2020 (Figure 1.4, Panel G). No recovery was seen over the northern hemisphere summer.

Repatriation and return of migrant workers and post-return assistance

In response to the spread of COVID-19, economic restrictions including lockdowns and border closure were implemented in host countries, which led to the return of many migrant workers to their home countries, including those who were out of work and those who left to reduce the risk of contracting COVID-19. Migrant workers are often the first to be laid off in times of economic crisis.

A combination of factors motivated migrant workers' return, including the fear of a worsening COVID-19 situation, job losses or expected job losses, or expiration of work permits (ILO 2020b). The ILO rapid assessment found that 47% of the returnees left jobs because they chose to, and 24% had a contract that was due to end. However, 16% had employers who permanently or temporarily ended their contracts prematurely (ILO 2020c). Not all returning workers returned due to pandemic-related job loss: an International Organization for Migration (IOM) rapid assessment survey conducted among returning migrant workers in Myanmar, for example, found that 50% of men migrant workers and 42% of women migrant workers reported having lost their jobs due to COVID-19 (IOM 2020a). Estimates vary on the numbers and proportion of women and men migrant returnees (ILO and UN Women 2020).

During the initial months of the pandemic, many migrant workers were stranded in host countries due to reduced or cancelled international flights and their governments' lack of readiness to accept large numbers of returnees. For example, initially, Pakistan had no comprehensive database of stranded citizens, nor the testing capacity to screen returnees. In March 2020, it created a National Command and Control Centre to coordinate and plan repatriation, register applicants, and set up reception. Once the measures were put in place, the government started special flights to return stranded Pakistanis. The national airline repatriated 90,300 citizens between April and June 2020 on 490 special flights (State Bank of Pakistan 2020).

The Government of India embarked on a large-scale evacuation and repatriation mission called the *Vande Bharat* mission. The evacuation flight missions started in May 2020 and within 2 months, 504,000 stranded Indian migrants, including workers, from 137 countries returned to their homes

¹ In July 2020, the Government of Indonesia issued a decree on "The Implementation of the Placement of Indonesian Migrant Workers during the Period of Adaptation to New Habits". The decree regulates the deployment of workers in the new health context and also states that migrant workers should not be charged for the application of the additional health requirements (e.g., testing and quarantine) in the placement process or in the destination placement country.

(Government of India, Ministry of External Affairs 2020). By the end of July, the number approached 900,000 returnees by air and over 1 million across land borders. *Vande Bharat*, by its eighth phase in November 2020, had repatriated over 3 million Indian nationals.

Sri Lanka launched a "Contact Sri Lanka" database in March 2020, to allow expatriates to register online and receive assistance during emergencies. Between 1 February and 25 June 2020, 10,400 overseas Sri Lankans were evacuated on repatriation flights, according to the Ministry of Foreign Relations; of these, approximately 2,400 (23%) were migrant workers. About 52,400 overseas Sri Lankans from 117 countries were awaiting repatriation as of 16 June 2020 of which, 39,000 were migrant workers (74%), of which 26,300 (50%) were in the Middle East. By 11 November 2020, according to the same ministry, more than 40,000 Sri Lankans had been repatriated, including 17,900 migrant workers from the Middle East.

In the case of Nepal, the government reported in August 2020 that over 160,000 Nepalis from different parts of the world had returned. However, this number does not specifically indicate how many of these returnees were repatriating migrant workers, relative to returns for other reasons. This figure also does not include those who returned from India via land borders, the estimates of which are around 500,000. In Bangladesh, the IOM reported that according to the Probashi Kollan Desk at the international airport in Dhaka, a total of 272,000 Bangladeshi migrant workers returned between 1 April and 11 November 2020.

The Philippines put in place a system to support overseas Filipino workers affected by the COVID-19 situation. The number of overseas foreign workers (OFWs) who were repatriated due to the COVID-19 pandemic reached 147,000 by 15 August 2020 (Government of the Philippines, Department of Employment and Labor 2020). The Overseas Workers Welfare Administration administers a repatriation fund with cash assistance; the Department of Labor and Employment registered more than 600,000 requests for cash assistance by 15 August 2020. About 58% of applicants were still abroad at the time of the requests.

In Viet Nam, between April and July 2020, the government brought back more than 19,600 civilians by 80 aircraft (Thời 2020). Reports from Cambodia, the Lao People's Democratic Republic (Lao PDR), and Myanmar indicate that at least 260,000 migrant workers returned home by mid-April, many from Thailand (ILO 2020d). By 28 June, a total of 162,000 migrants had returned to Indonesia (Santoso 2020). By 17 June, the Lao PDR received 119,401 documented returns, mostly from Thailand, and by 6 August 141,710 migrants returned to Myanmar through border checkpoints, with the majority returning from Thailand (IOM 2020a).

In addition to return and repatriation assistance, origin countries also made efforts to support stranded workers before and after return. ASEAN countries of origin have provided assistance to overseas and returning migrant workers during the COVID-19 pandemic as part of national programs or services directed to migrant workers. During the COVID-19 crisis, the Philippines Overseas Workers Welfare Fund, established in 1977, provided OFWs a one-time cash assistance of \$200 (ADB 2020). The Overseas Workers Welfare Fund has collected almost \$0.5 billion in fees over decades, but the pandemic risks have dangerously depleted its funds with potentially negative long-term implications for its future services (Abella 2020). To further assist migrant workers, the Government of the Philippines also offers support through its Overseas Workers Welfare Administration, including hotlines and help desks that share information and advisories, as well as temporary shelter and food for stranded OFWs, financial assistance for OFWs returning home, and a livelihood grant to reintegrate permanently in the Philippines (ILO 2020b).

General measures to support workers made redundant or facing loss of income due to the pandemic did not always extend to migrant workers. For example, migrant workers have been largely excluded from job retention and income and unemployment relief measures implemented by governments in ASEAN countries. The ILO rapid assessment survey on impacts of the COVID-19 pandemic on ASEAN migrant workers found that 97% of respondents in destination countries had not accessed any social security support. One exception has been formal sector migrant workers in Thailand who are eligible for unemployment insurance benefits. Singapore has also been supporting employers in retaining and fulfilling their obligations to their migrant employees, including levy support (rebates and/or waivers), with particular focus on migrant workers in the construction, marine shipyard, and process sectors.

The exclusion of migrant workers from unemployment benefits, income relief, and wage subsidies in ASEAN countries of destination, has led to a humanitarian crisis among the migrant populations. Many migrant workers rely on food relief provided by governments, trade unions, and civil society organizations (CSOs) to survive. Emergency responses by government, trade unions, and CSOs in countries of origin have also been assisting returning migrant workers. In Myanmar, trade unions and CSOs have provided emergency support to returning migrant workers at border crossings and in returning migrant communities. These large-scale experiences of return and repatriation provided some important lessons (Box 1.2).

Box 1.2: Lessons from Return and Repatriation Exercises

Large-scale repatriation is complex: it requires detailed logistics planning and puts stress on local resources and public healthcare capacities in countries of origin. The mass repatriation such as that undertaken by India requires close coordination between different ministries, between the central and state or provincial governments, and with governments in countries of destination. Ensuring the health and safety of returnees during the repatriation process and avoiding community transmission is in itself a key issue. Various requirements to ensure that workers are tested prior to departure and on arrival were put in place. Governments also had to organize quarantine facilities to minimize risks for community transmission. Across Myanmar, for example, over 10,000 quarantine facilities were initially established, although the number was expected to decrease after the expected opening of schools. Quarantine facilities, transportation to migrant workers' home towns, and testing facilities were available to most migrants (ILO 2020b).

In 2020, diplomatic missions were overwhelmed by the number of requests received daily by stranded citizens. Priority lists were compiled to identify those people with the most compelling reasons to return. The cost of repatriation is another area where practice diverged: in some cases, governments of countries of origin or destination have paid for the return journeys, while in others, migrants have had to foot the bill. Some host countries have used repatriation operations to deport undocumented migrants; this occurred, for example, in Malaysia (ILO 2020b).

In a number of cases, migrant workers returned with more debt than when they first migrated for work. Many migrant workers reported salaries being withheld by companies and nonpayment of wages. In the short time available prior to return, it was often difficult for migrant workers to receive the salary and insurance they were due—in some cases, due to uncooperative employers. To address these injustices, a global campaign led by trade unions and civil society organizations (CSOs) was launched calling for an urgent mechanism for those repatriated migrant workers who had not been paid their wages.¹

continued on next page

¹ https://justiceforwagetheft.org/en/page/c1cu5etiltr

Box 1.2 continued

Returning migrant workers needed to be reintegrated into their communities at both the social level as well as in the job markets in the local economy. However, these migrant workers are returning to countries of origin where the labor market is also struggling under the effects of the pandemic and where social protection measures are inadequate. Examples of institutional response include India, which has launched a new skill-mapping initiative, the Skilled Workers Arrival Database for Employment Support (SWADES), to facilitate the reintegration of migrant workers in the domestic labor market. Similarly, the Philippines Technical Education and Skills Development Authority (TESDA), supports displaced workers with free online courses for upskilling and reskilling (ILO 2020b).

The importance of regional and multilateral cooperation was also recognized by countries in South Asia and ASEAN. A subregional meeting on evacuation and repatriation to share experiences was organized by the Government of India in July 2020 with the participation of Bangladesh, Nepal, and Sri Lanka and supported by the International Labour Organization. The 13th ASEAN Forum on Migrant Labour, "Supporting Migrant Workers during the Pandemic for a Cohesive and Responsive ASEAN Community", comprising governments, trade union and employer organizations, and CSOs, in its recommendations called to "strengthen migrant workers' return and reintegration programmes with adequate resources." It also recommended that "if detention facilities are used as a last resort, safety and health standards should be ensured."

1.2.2 Employment, Work Permits, and Conditions of Work

Migrant workers have, as noted above, been more exposed to the employment effects of the pandemic. They are more likely to be on fixed-term and temporary contracts, making them vulnerable to first-round layoffs. In the ASEAN region, for example, migrant workers largely work on fixed-term and temporary employment contracts. In some countries, migrant workers are specifically identified as priority for termination: Malaysia's Ministry of Human Resources indicated in April 2020 that layoffs should prioritize foreign employees (Government of Malaysia, Ministry of Human Resources 2020). Since then, closures have been reported for example in the garment and apparel sector, causing unemployment among migrant workers (ILO 2020e).

Extensions to stay for migrant workers in OECD countries

In OECD countries, measures were taken to allow migrant workers whose permits were expiring or who lost their jobs due to the economic impact of pandemic-related restrictions, to remain legally and in many cases to change employment. The usual restrictions on sector of employment were often lifted (OECD 2020b, European Migration Network and OECD 2020).

For example, in Japan, technical intern trainees who were dismissed due to the impact of COVID-19 on employment unable to continue their training, were supported by the Immigration Services Agency for re-employment in 14 specified industrial fields—including agriculture—and allowed to stay in Japan for up to 1 year. Foreign nationals with the status of residence of "technical intern training" were permitted to change their status to "designated activities" and continue to stay and work in Japan for 6 months after their original visa expires (Immigration Services Agency of Japan 2020). In the Republic of Korea, 3-month extensions were granted repeatedly to foreign residents with expiring visas.

In addition to OECD countries, Asian countries hosting labor migrants also took measures to prevent legal migrant workers from falling into an undocumented status. For example, Thailand introduced

a policy granting permission to migrant workers with expiring work permits to stay for an additional 2 years. About 130,000 migrants from Myanmar, Cambodia, and the Lao PDR who had entered the country under bilateral labor agreements with permits expiring up to December 2021 are eligible.

Extensions to stay for migrant workers in ASEAN

Generally, countries in the region have offered visa extensions or amnesties and other similar measures to support migrants remaining in the country. Thailand provided relief measures to allow registered migrant workers and their family members to remain temporarily in the country, without a fine, if their visa expired during the pandemic period. Thailand's Department of Employment of the Ministry of Labour estimated that 1.2 million work permits of migrant workers and their families were renewed or approved by 30 June 2020 (ILO 2020f). These measures have been continually extended, including up to November (ILO 2020g). Singapore similarly extended all expired work visas for 2 months and assisted retrenched migrant workers with income, accommodation, and food support (Abella 2020). Singapore has also made it easier for migrant workers to find alternative jobs in Singapore, through a temporary scheme that enables the transfer of migrant workers across sectors. Malaysia imposed

Box 1.3: Additional Vulnerabilities of Migrant Workers due to the Employment Impact of the COVID-19 Pandemic

Nonpayment of wages

Employers facing economic and financial challenges during the pandemic may transfer their financial burdens to their employees by reducing, withholding, not paying, or irregularly paying wages and benefits.

An International Labour Organization rapid assessment found that among migrant respondents unemployed in countries of destination, 43% experienced employment challenges or abuses related to COVID-19. Some of the returnee respondents reported being paid in full before leaving their employment in countries of destination. However, others experiencing COVID-19 related issues primarily cited deferred, reduced, or nonpayment of wages and contract termination (ILO 2020c).

Working conditions

Labor rights violations have also been reported in essential services jobs, where migrant workers have continued to work throughout the lockdown periods. For example in the Malaysian medical rubber gloves manufacturing sector, migrant workers producing the gloves have reportedly experienced labor violations related to noncompliance with the Movement Control Order rules, social distancing, occupational safety and health, working hours, forced labor, and living conditions (ILO 2020e).

Impact on women migrant workers

Domestic workers, largely women, are often not covered under labor law protections and are at risk of labor contract violations. For live-in migrant domestic workers, losing their employment also results in losing their place to live at a time when travel to return home is restricted, financially challenging, and poses health risks (UN Women 2020).

Access to remedies

Trade unions and civil society organizations have continued to provide legal aid to migrant workers who have faced unfair dismissal or labor rights violations during the COVID-19 pandemic. For example, the Malaysian Trades Union Congress has assisted migrant workers with cases of unfair termination, unpaid wages, poor living conditions, workers forced to work in non-essential jobs, and workers' uncertainty with employment status as a result of limited contact with employers (ILO 2020e).

a moratorium on the immigration of less-skilled migrant workers until the end of 2020. Meanwhile workers in the country have been given permission to change employers and sectors.

The negative employment impact of the COVID-19 pandemic has led to situations of greater vulnerability and risk of violations of labor rights for migrant workers (Box 1.3). The prospect of repatriation has been coupled with employers violating contract and wage commitments. The poor labor market and pressure of essential sectors have been associated with labor rights violations. Housing may be linked to employment, putting domestic workers at particular risk due to job loss.

1.2.3 Health Risks for Migrant Workers in Asia²

Migrants worldwide were more exposed to the risk of infection and had less access to testing and treatment. In OECD countries, migrants were twice as exposed to infection as the native born (OECD 2020a). As immigrants are concentrated in essential occupations that cannot be undertaken from home, they are less likely to be able to telework: in three-quarters of OECD countries, the share of immigrants able to telework is at least 5 percentage points below that of their native counterparts. In non-OECD countries of employment of migrant workers, migrant workers are also more likely to work in essential occupations. Most ASEAN countries provide free testing and treatment of the COVID-19 infection to migrant workers when clusters have been identified.

Migrant workers are overrepresented among those infected with COVID-19 in a number of ASEAN countries. For example in Singapore, migrant workers compose 38% of the workforce (ILOSTAT), but comprised more than 90% of the country's total COVID-19 cases (Han 2020). In Malaysia, migrant workers constitute 15% of the workforce (ILOSTAT), but as of 6 August 2020, foreigners constituted 30% of the total confirmed COVID-19 cases in the country (CodeBlue 2020). In the Philippines, as of 4 August 2020, repatriated OFWs accounted for 4.5% of total recorded infections (5,050 out of a total 112,593) and 0.6% of total recorded deaths (13 out of 2,115) (Government of the Philippines, Department of Health 2020).³

There are various reasons for migrant workers' overrepresentation among the infected. First, migrant workers may be disproportionately exposed to the COVID-19 infection due to the nature of their work (ILO 2020b). Many migrant workers work in sectors classified as "essential services",⁴ where employees were allowed and even required to report to work during the strictest lockdown measures. These sectors include healthcare, logistics, transport, maintenance, and construction. One example of such work in essential services is manufacturing of medical rubber gloves in Malaysia, where issues with working conditions, lack of social distancing, and noncompliance with the government's Movement Control Order have been reported (ILO 2020d). Malaysia provides 67% of the global demand for rubber gloves, a medical necessity in urgent demand during the global pandemic.

² This section is partly drawn from ILO, "Supporting migrant workers during the pandemic for a cohesive and responsive ASEAN Community", draft thematic background paper for the 13th ASEAN Forum on Migrant Labour, 10 and 12 November 2020 (ILO 2020b).

³ In addition, 9,607 cases and 693 deaths were recorded among overseas foreign workers (OFWs) abroad in 71 countries and territories (de Guzman 2020); considering that 2.2 million OFWs were abroad, this corresponds to a reported infection rate of about 0.4%.

⁴ Among others, Malaysia and Singapore issued detailed lists of essential services that were allowed to operate during the lockdown measures, under strict conditions. See Government of Malaysia, Malaysian Ministry of Human Resources (2020).

In the face of increased exposure, many migrant workers lack access to personal protective equipment (PPE), such as masks, and have limited ability to distance themselves at work, or during transit to work, and to wash their hands frequently (ILO 2020b). The ILO conducted a rapid assessment survey in March–April 2020 to better understand the impact of COVID-19 on migrant workers in ASEAN. This rapid assessment, which interviewed 309 ASEAN migrant workers in seven ASEAN countries,⁵ found that 33% of respondents currently working in destination countries were not provided with PPE by their employers. This differed by country, and in Thailand 57% did not have basic PPE of masks and hand sanitizer (ILO 2020c).

Second, migrant workers may also be at increased risk of COVID-19 infection due to their housing. Many migrant workers, for instance in construction or manufacturing, live in crowded employer-provided accommodation, making it difficult to ensure social distancing. For example, COVID-19 spread rapidly in Singapore's migrant worker housing from April 2020. In December 2020, the Singapore government reported that of the 320,000 migrant workers in dormitory facilities, more than 54,000 had at some point tested positive for COVID-19 (93% of all cases in Singapore), and an additional 100,000 had tested positive in serology tests, indicating a COVID-19 prevalence rate of 47% among all dormitory-housed workers (Government of Singapore, Ministry of Health 2020). A survey of 101 migrant workers carried out by a Singapore CSO, the Humanitarian Organization for Migration Economics, found that a majority were unlikely to maintain even 1 meter distance from others in employer-provided dormitories, and 57% reported inadequate soap or hand sanitizer for washing their hands (ILO 2020c). Similarly, in Malaysia, clusters of COVID-19 infection were found in migrant housing and in a construction site (ILO 2020e).

Poor housing is a risk for migrant workers. Many migrant workers live in inadequate lodgings, under living conditions which do not favor or even allow social distancing. Dense living conditions have led to, or at least significantly contributed, to the spread of the virus in migrant dormitories. Transient Workers Count Too, a CSO in Singapore, reported in early April that based on the building code, dormitory operators house migrant workers in dormitories with a minimum floor area of 90 square meters (m²) for 20 persons (Ling 2020). This translates into only 4.5 m² per person, including the space for toilets and showers. Further, an earlier ILO publication (ILO 2016) described the substandard living conditions of migrant workers in the construction sector in Thailand.⁶ The study noted that workers housing in Thailand lacked regulatory oversight.

In Malaysia, the health director-general pointed out in May 2020 that cramped and congested living conditions for foreign workers could have led to the spread of COVID-19 among them, and said employers may have only focused on workplace conditions instead of their employees' housing conditions as well (Lim 2020). New regulations, "Employees' Minimum Standards of Housing, Accommodations and Amenities (Accommodation and Centralized Accommodation) Regulations 2020", were gazetted by the government on 28 August 2020.

The ASEAN Consensus on the Protection and Promotion of the Rights of Migrant Workers (2018) recognizes "migrant workers have the right to adequate or reasonable accommodation". ILO Recommendation 115 on Workers Housing (1961) states "as a general principle, the competent authority

⁵ The rapid assessment was carried out through ILO-supported migrant worker resource centers and civil society organizations partnering with the ILO in seven countries in ASEAN. Respondents included migrants who had started recruitment processes that stalled, migrants who migrated after the pandemic began, migrants in destinations with and without work, and migrant returnees. Of the 309 ASEAN migrant workers surveyed, 131 were in economies of destination (Malaysia, Singapore, Thailand in ASEAN, and also Hong Kong, China; the PRC, Saudi Arabia, and the United Arab Emirates, among others), and 178 were in countries of origin (Cambodia, Indonesia, Myanmar, the Philippines, and Viet Nam). Of those interviewed in origin countries, 15% were potential migrants who had started the recruitment process and 85% were returnees.

⁶ In company-provided housing, families frequently live together in rooms just big enough to fit two mats on the floor at night. Thin metal sheeting separates each family's rooms. The study also found that an acute lack of privacy in bathing areas.

should, in order to ensure structural safety and reasonable levels of decency, hygiene and comfort, establish minimum housing standards in light of local conditions and take appropriate measures to enforce these standards".

The COVID-19 pandemic has also highlighted the importance of providing migrant domestic workers decent living conditions that respect their privacy, as required under the ILO Domestic Workers' Convention, 2011 (No. 189). One example of these response can be seen in Singapore (Box 1.4).

Box 1.4: Singapore's Response to COVID-19 in Migrant Workers' Housing

In Singapore, as of 13 August 2020, migrant workers living in dormitories comprised 90%, or 52,516, of the country's total COVID-19 cases (Han 2020). Civil society organization and media reports highlighted crowded and unsanitary living conditions in the dormitories (Ling 2020). Following the outbreak in the beginning of April, the Ministry of Manpower (MOM) formed a multi-ministry taskforce on handling the COVID-19 situation in the dormitories. The senior minister and coordinating minister for national security were advising this taskforce.

Prime Minister Lee Hsien Loong in his address to the nation (10 April 2020) acknowledged the contribution of migrant workers: "we are paying close attention to the welfare of the foreign workers. They came to Singapore to work hard for a living, and provide for their families back home. They have played an important part building our HDB flats, Changi Airport, MRT lines. We have worked with their employers to make sure they will be paid their salaries, and can remit money home. We will provide them with the medical care and treatment that they need." Further the prime minister, noted: "the task force has deployed Forward Assurance and Support Teams in all the dorms. These teams work closely with the dorm operators and can respond quickly to the workers' essential needs. They are setting up medical facilities and triage clinics, bringing in supplies and food, and managing the logistics and housekeeping." (Straits Times 2020). The government also engaged the high commissions and embassies of the migrant workers affected to update them on the situation.

The MOM's housing inspectorate department (part of the foreign manpower management division) oversees migrant worker accommodation in Singapore. The Foreign Employee Dormitory Act (FEDA), enacted in 2015, imposes higher standards on dormitories that accommodate 1,000 or more workers. In early February 2020, the MOM asked all FEDA-licensed dormitories to each put aside at least 10 quarantine rooms. As the pandemic showed, however, building standards and the law were not enough to protect residents.

Since the COVID-19 outbreak the government is putting in place a major program to build additional dormitories with higher standards over the coming months and years. In the short to medium term, additional space will be created to house around 60,000 workers through quick build dormitories, temporary fitting of currently unused state properties, and additional construction of temporary quarters. In the longer term, there are plans for new purpose-built dormitories to house up to 100,000 workers to replace the short- to medium-term housing. The new dormitories will have amenities like minimarts, indoor recreation facilities, and well-spaced blocks to ensure good ventilation (Government of Singapore, MOM 2020a).

There have also been concerns about migrants' mental health of prolonged periods of isolation in dormitories and movement restrictions. As of 19 August 2020, all migrant worker dormitories in Singapore had been cleared of COVID-19. The MOM has clarified that workers are not kept in indefinite quarantine. All dormitory residents are tested as part of a dormitory clearance process. Close contacts of positive cases who tested negative are quarantined and then subsequently re-tested. This process is repeated for each cohort until every individual in the cohort tests negative through one quarantine cycle (i.e., 14 days). This same procedure is applied across all cohorts. Due to this, some dormitories or blocks have had to undergo multiple cycles of testing and it has taken a while longer for the quarantine to be lifted (Government of Singapore, MOM 2020b).

Finally, migrant workers have been put at risk of contracting the COVID-19 virus in immigration detention facilities, where social distancing and access to soap, water, and PPE is challenging. This was seen with new infection clusters arising in detention centers after large-scale arrests of migrant workers in early May 2020 in Malaysia. Similarly, reports indicate the spread of COVID-19 in Thailand's immigration detention centers.

1.3 Labor Migration in Asia—Medium-term Trends

Passing from a review of the impact of the pandemic in 2020 to a longer-term view of the role of Asia in global labor migration, the picture prior to COVID-19 showed some continuity with longstanding trends as well as some significant shifts already visible pre-pandemic.

There were an estimated 87 million Asian-born migrants in 2019. Asian-born migrants comprise about one in three persons living in a country other than their country of birth (Figure 1.5). This figure has slipped only slightly over the past decade, even as the total stock of migrants has increased worldwide.



Figure 1.5: International Migrant Stock: Asian-born in the World

Source: United Nations Department for Economic and Social Affairs. International Migrant Stock 2019. https://www.un.org /en/development/desa/population/migration/data/estimates2/estimates19.asp.

1.3.1 Labor Migration Flows from Asia to Non-OECD Countries

The main form of migration from Asian countries is temporary labor migration, usually directed to non-OECD countries. This flow, as measured by the number of workers deployed, peaked in 2015 at 5.6 million, but declined until 2018. It rebounded by 5% in 2019 (Figure 1.6). After 3 consecutive years of decline, outflows of workers for employment abroad reached 4. 9 million. Although still well below the 2015–2016 peak, this level is higher than any registered prior to 2012. The main driver behind this rebound in 2019 was a sharp increase in the flows between South Asia and Saudi Arabia.

Despite a small 1% drop, the Philippines remains the top Asian origin country of overseas workers. In 2019, more than 1.5 million OFWs were deployed (Table 1.1). Since 2012, on average of around



Figure 1.6: Total Outflows of Workers from Selected Asian Countries, 2007–2019

Note: Total of the 12 countries presented in Table 1.1. 2018 includes an estimate for Lao PDR. 2019 includes an estimate for Lao PDR and Myanmar.

Source: National authorities.

1.5 million OFWs were deployed every year, comprising new deployment and returning workers. Outflows of workers from Bangladesh declined in 2019 (–5%) and stood at 700,000. Bangladesh has been the second main country of origin since 2017. Pakistan was third in 2019, following a sharp increase in the number of registered workers for overseas (+63%) compared to 2018. India also saw an increase in worker emigration (+8%) but the total reached in 2019 (370,000) remains low compared to the levels observed in the past 10 years. Outflows from Viet Nam have steadily increased since 2012, by around 10,000 per year, and stood just above 150,000 in 2019. Viet Nam is now confirmed as one of the top origin countries.

												2018/19
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	change
Philippines	991	1,124	1,319	1,435	1,469	1,431	1,438	1,670	1,595	1,525	1,516	-1%
Bangladesh	475	391	568	608	409	426	556	758	1,009	734	700	-5%
PRC	395	411	452	512	527	562	530	494	522	492	487	-1%
Pakistan	396	358	453	635	620	752	947	839	496	382	625	63%
India	610	641	627	747	817	805	781	521	391	340	368	8%
Nepal	220	294	355	385	451	520	499	404	383	354	236	-33%
Indonesia	630	567	594	460	469	430	276	235	262	284	277	-2%
Sri Lanka	247	268	263	282	293	301	263	243	212	211	190	-10%
Viet Nam	73	86	88	80	88	107	116	126	135	143	153	7%
Cambodia	15	30	26	35	23	25	41	85	96	69	68	-1%
Lao PDR	4	19	34	7	23	8	51	58	49			
Myanmar	6	5	18	68	67	65	95	146	162	238		

 Table 1.1: Outflows of Workers from Selected Asian Countries, 2009–2019, thousands

Lao PDR = Lao People's Democratic Republic, PRC = People's Republic of China.

Note: Outflows from the Philippines are estimates for 2018-2019.

Source: National authorities.

Decreases in outflows of temporary workers were observed in the PRC (–1%), Nepal (–33%), Indonesia (–2%), Sri Lanka (–10%), and Cambodia (–1%). The sharp decline in outflows from Nepal in the Nepalese fiscal year (FY) 2018–2019, following a more limited decline in previous years, can be explained by several factors, foremost of which is a drop in deployment to Malaysia. This decline is related to restrictions on recruitment agencies, first imposed in 2018 following cases of excessive and illegal fee taking. Malaysia had represented almost one-third of official deployment in the previous decade; the effective ban on placements has meant fewer outgoing migrants, although figures rose again in FY 2019–2020. Nepalese deployment also was affected by a disproportionate exposure to Qatar as a destination country; falling recruitment there was visible in lower levels of deployment from Nepal.

	Philippines	India	Pakistan	Pakistan Nepal		Bangladesh	Indonesia	Total	
	2018	2019	2019	2018/19	2019	2019	2019	2019	
Saudi Arabia	410	161	333	46	35	399	7	1,391	
United Arab Emirates	251	76	211	63	33	3	1	638	
Qatar	116	32	19	75	41	50	0	343	
Oman	24	28	28	3		73	0	165	
Kuwait	102	46	0	16	43	12	1	224	
Bahrain	20	10	8	5		0	0	46	
Total GCC 2019		353	600	208	163	538	9	2,793 (e)	
Total GCC 2018	922	322	364	230	178	438	9	2,463	

Table 1.2: Flows of Workers to GCC Countries, thousands

GCC = Gulf Cooperation Council, e = estimate, .. = not available.

Source: National authorities of origin countries.

In 2018, flows of Asian workers to the Gulf Cooperation Council (GCC) countries had fallen sharply, by 25%. This was mostly due to the much lower number of entries of workers in Saudi Arabia, notably from Bangladesh and Pakistan. In 2019, the trend reversed: overall, worker entries into GCC countries jumped by 24% between 2018 and 2019. Saudi Arabia received 55% more overseas workers from Bangladesh (400,000) than in 2018, three times more from Pakistan (330,000), and twice as many from India (160,000) (Table 1.2). The other main GCC destination countries for foreign workers received fewer of them in 2019 than in 2018. In particular, Qatar received only 75,000 Nepalese workers (-27%) and 50,000 from Bangladesh (-55%). Flows from Sri Lanka to Qatar were also down by 20%, to 41,000.

The member countries of the Association of Southeast Asian Nations (ASEAN) also constitute an important destination area for Asian workers, although much less so in 2019. Indeed, for the countries for which data are available, Asian temporary labor migration to ASEAN countries dropped by 28% in 2019, standing at around 580,000 workers. This is mainly due to huge drops in movement along major corridors such as those from Bangladesh and Nepal towards Malaysia, which were virtually inactive in 2019. The number of Cambodian workers deployed to Thailand also dropped sharply (-40% to less than 60,000). The remaining key corridors for labor migration are Myanmar to Thailand (240,000 workers), Indonesia to Malaysia (80,000 workers), Myanmar to Malaysia, which almost tripled at over 80,000 workers), and Bangladesh to Singapore (50,000 workers).

Origin:	Philippines	Indonesia	Nepal	Bangladesh	India	Pakistan	Thailand	Sri Lanka	Myanmar	Cambodia	Viet Nam
Destination	2018	2019	2018/19	2019	2019	2019	2019	2018	2019	2019	2019
Singapore		19,354	206	49,829	0	82	3,819	1,917	467	287	
Malaysia		79,662	9,999	545	10,633	11,323	7,919	2,455	78,781	69	454
Thailand		11	30		24			0	238,082	57,823	
Brunei Darussalam		5,639	143	3,628	0	187		8	0		
Total 2019		104,666	10,378	54,002	10,657	11,592	11,738		317,330	58,179	454
Total 2018	205,295	114,713	104,511	221,800	16,370	10,171	12,735	4,380	223,457	97,039	1,102

Table 1.3: Flows of Workers to ASEAN Countries, by Origin and Destination

ASEAN = Association of Southeast Asian Nations.

Sources: ILO International Labour Migration Statistics database and national authorities of origin countries. Empty cells indicate no data available.



Lao PDR = Lao People's Democratic Republic.

Sources: Official data from national authorities (Bangladesh, India, Indonesia, Nepal, Sri Lanka, Thailand); ILO (2018) and BEOE (2019) for Pakistan; ILO International ASEAN Labor Migration Statistics database (for Cambodia, Lao PDR, Myanmar, Viet Nam); Philippines Statistics Authority.

Looking at the gender composition of the deployed workers from Asian countries, there are huge differences from one country to another, but within each country the share of women has remained largely stable (Figure 1.7). Deployment from India and Pakistan comprises almost only men, while women have made up about 70% of Indonesia's overseas workforce since 2017. There is also a majority of women among workers from the Philippines (56%) and from the Lao PDR (53%). The share of women among deployed workers was higher in 2019 than in 2015 for all countries except Viet Nam. In Viet Nam, the number of women among workers deployed has been falling slightly even as total deployment rises; this reflects the changes in destinations and the shift in industry sectors of deployed workers, especially to OECD Asian economies. The share of female workers among deployed Sri Lankans increased sharply between 2017 and 2019 so that Sri Lanka is now the only South Asian country with a gender-balanced deployed workforce in 2019 (43% of women). This can be attributed to the consistent demand for female domestic workers abroad—classified by Sri Lanka as "housemaids"; despite a policy objective of increasing the skill level of deployed workers, this category has remained constant. Nepal has seen a rising share of women among migrant workers—albeit from a low level—also reflecting deployment of care workers to new destinations.

1.3.2 Migration Flows from Asia to OECD Countries

OECD countries constitute another area that many Asian migrants head to every year, not only for work, but also for family or humanitarian reasons, or to study. Twenty years ago, OECD countries received around 1 million Asian migrants per year. Between 2005 and 2012, the number of migrants leaving Asia annually for an OECD country stood at 1.5 million. Since then, the number has continuously increased, surpassing 2 million annually in 2016. While complete figures are not yet available for 2019, an estimate based on those available suggest that 2.3 million citizens of Asian countries migrated to OECD countries. This represents a 3% increase compared to 2018 (Figure 1.8), less than the 5% annual increase seen in both 2017 and 2018.

Migrants from the PRC have always ranked highest among those entering OECD countries. In 2019, OECD countries registered an estimated 570,000 arrivals of citizens from the PRC, stable compared to the previous 2 years, for which full data are available (Table 1.4). This accounted for one-quarter of



Figure 1.8: Migration Flows from Asia to OECD Countries, 2000-2019

OECD = Organisation for Economic Co-operation and Development.

Source: OECD International Migration database.

migration flows from Asia. However, this reflects the PRC's smaller share of Asian migration to OECD countries; in 2013 it comprised fully one-third. India and Viet Nam are second and third in the list, with around 400,000 and 280,000, respectively, both up by 15% in 2019. Viet Nam represented 12% of flows from Asia to OECD, compared with 7% on average from 2008 to 2018. Annual outflows from Viet Nam to OECD countries represent 0.3% of the country's population. The Philippines ranked fourth with 170,000 new migrants in OECD countries in 2019, about the same as in 2018. Migration from the Philippines to OECD countries reached a peak at 180,000 in 2015, but has since held steady at around 170,000. Arrivals of Thai citizens in OECD countries, which had almost doubled between 2015 and 2018 fell sharply in 2019 to around 90,000.

	Estimated Flows 2019 (thousands)	Flows 2018 (thousands)	Average Flows 2008–2017 (thousands)	% of Total OECD Inflows 2018	% Change 2017–2018	Expatriation Rate 2018 (per million inhabitants)
People's Republic of China	570	565	529	7.8	+1	395
India	400	355	253	4.9	+14	262
Viet Nam	280	243	123	3.3	+14	2,548
Philippines	170	169	165	2.3	-4	1,584
Thailand	90	120	65	1.6	+8	1,729
Afghanistan		102	59	1.4	-2	2,757
Pakistan		92	88	1.3	-1	433
Republic of Korea		76	73	1.0	+4	1,492
Bangladesh		54	48	0.7	+4	334
Nepal		51	36	0.7	+5	1,830
Indonesia		48	32	0.7	+22	178
Uzbekistan		43	22	0.6	-4	1,336
Turkmenistan		36	4	0.5	+70	6,125
Japan		34	34	0.5	-2	267
Kazakhstan		31	11	0.4	+22	1,681
Azerbaijan		30	9	0.4	+8	3,035
Taipei,China		30	22	0.4	+8	1,269
Myanmar		27	24	0.4	-11	498
Sri Lanka		25	33	0.3	-9	1,162
Georgia		21	12	0.3	-5	5,255
Mongolia		20	12	0.3	-0	6,302
Cambodia		19	15	0.3	-6	1,164
Malaysia		19	20	0.3	-5	588
Hong Kong, China		17	9	0.2	+0	2,362
Kyrgyz Republic		15	5	0.2	+8	2,336
Singapore		13	8	0.2	+0	2 195

Table 1.4: Migration to OECD Countries, Asian Economies of Origin, 2017–2018

continued on next page

Table 1.4 continued

	Estimated Flows 2019 (thousands)	Flows 2018 (thousands)	Average Flows 2008–2017 (thousands)	% of Total OECD Inflows 2018	% Change 2017-2018	Expatriation Rate 2018 (per million inhabitants)
Tajikistan		5	2	0.1	-7	496
Bhutan		4	8	0.0	-26	4,692
Lao PDR		3	3	0.0	+6	397
Timor-Leste		1	1	0.0	-11	421
Brunei Darussalam		0	0	0.0	+32	839
Maldives		0	0	0.0	+9	382
Total Asia		2,266		31.1	+5	

Lao PDR = Lao People's Democratic Republic, OECD = Organisation for Economic Co-operation and Development.

Source: OECD International Migration database.

Besides India and Viet Nam, Asian countries which saw the sharpest increase in emigration to OECD countries in 2018 are Indonesia (+22%) with larger migration flows to Japan and the Republic of Korea, some Central Asian countries such as Turkmenistan (+70%) and Kazakhstan (+22%), as well as Brunei Darussalam (+32%).

The number of Asian migrants going to Japan and the Republic of Korea, the two Asian countries belonging to the OECD, has been increasing sharply in recent years. For every five Asian migrants entering an OECD country, one goes to the Republic of Korea, and another to Japan, so that in 2018, both received more than 400,000 new migrants coming from other Asian countries. This represents a 10% increase for the Republic of Korea, driven by larger numbers of migrants from the PRC, Thailand, and Viet Nam. In Japan, the 11% rise is fully due to another jump in arrivals of citizens from Viet Nam (+25%, at 123,000). This reflects in part the expansion of Japan's technical internship program and its use by Vietnamese workers. In 2018, the United States (US), a longstanding destination for emigration from Asia, granted lawful permanent resident status to almost 330,000 Asian nationals. However, this is 8% lower than in 2017 and represents the second consecutive drop since 2016. In 2018, immigration to the US from most Asian countries declined, with the largest decreases being observed for citizens of Afghanistan (-7,000 persons), the PRC (-6,000), Myanmar (-5,000), and Viet Nam (-4,000). The United Kingdom ranks fourth, with 180,000 new Asian immigrants in 2018 (+3%). Very strong increases of immigration from India to Canada were registered in 2017 and 2018, so that the 2018 level (70,000) is almost double the 2016 level. In the context of a general decline of migration to Australia, migration from major Asian origin countries also declined, with an overall drop of 14% (Table 1.5). Data for 2019 show diverging trends in the number of new Asian migrants to the main OECD destination countries: notable increases for Japan (+14%), the United Kingdom (+8%) and Canada; and decreases for the Republic of Korea (-13%), the United States (-7%), and Australia (-8%).

Highly-skilled migrants coming to OECD countries have increasingly come from Asian origin countries. This is visible in the statistics for initial permits under the temporary skilled migration programs (Box 1.5).

	Number of Migrants in 2018 (thousands)	Number of Migrants in 2019 (thousands)	Differer Previo 2017/18 (absol	nce from us Year 2018/19 ute %)	% of Inflows from Asia to OECD	Main Asian Countries of Origin						
Republic of Korea	428	373	10	-13	19	PRC	Thailand	Viet Nam	Uzbekistan			
Japan	416	476	11	14	18	Viet Nam	PRC	Rep. of Korea	Philippines			
United States	329	307	-8	-7	14	PRC	India	Philippines	Viet Nam			
United Kingdom	179	194	3	8	8	8 India PRC Pakistan		Malaysia				
Canada	169	181	10	7	7	India	Philippines	PRC	Pakistan			
Turkey	154		21		7	Afghanistan	Afghanistan Turkmenistan Azerł		Uzbekistan			
Germany	135	144	5	6	6	India	PRC	Afghanistan	Pakistan			
Australia	111	103	-14	-8	5	India	PRC	Philippines	Pakistan			
Italy	58		-4		2	Bangladesh	Pakistan	India	PRC			
New Zealand	57		5		2	PRC	India	Philippines	Rep. of Korea			
Spain	33		4		1	PRC	Pakistan	India	Philippines			
Sweden	30	29	7	-4	1	Afghanistan	India	PRC	Pakistan			
Netherlands	30	33	12	13	1	India	PRC	Indonesia	Rep. of Korea			
France	28	29	4	4	1	Afghanistan	PRC	India	Bangladesh			
Poland	17		-9		1	India	Viet Nam	PRC	Nepal			

Table 1.5: Top 15 OECD Countries for Asian Migration, 2018–2019

.. = data not available, OECD = Organisation for Economic Co-operation and Development, PRC = People's Republic of China.

Source: OECD International Migration database.

Box 1.5: Highly-Skilled Migration from Asia to OECD Destinations

Asia is the origin of many of the skilled labor migrants to OECD countries. The United States (US) H-1B visa, for example, the main temporary permit for skilled migrant workers, is dominated by Indian nationals, who comprised 70% of new recipients in US fiscal year 2019 (Figure 1.9, Panel A), and 75% in 2020. In European Union (EU) OECD countries, the share is less marked. The EU Blue Card has gradually been introduced into the legislation of most EU countries (excluding Denmark, Ireland and—when it was in the EU—the United Kingdom). The share of Asians among skilled migrants is lower than in the US. In 2019, 37,000 EU Blue Cards were issued to non-EU nationals (Figure 1.9, Panel B). India was the main Asian nationality, comprising 25% of the total. 16% were issued to citizens of other Asian countries.

continued on next page

Box 1.5 continued



Note: Panel A. Data are for US fiscal years (October-September). Sources: United States Department of State, Eurostat.

1.3.3 Labor Market Situation of Asian Migrants in the United States, Canada, Australia, and Europe

In the US, the unemployment rate of Asian-born immigrants declined again in 2019 and stood at 2.4% (Table 1.6). Admittedly, this occurred in a general context of low unemployment in the US, but still sits at 0.7 percentage points below the overall foreign-born unemployment rate, and 1.5 points below that of the native born—a positive indication of the integration of Asian migrants in the US labor market. Further, their employment and participation rates increased more than those of the other two groups in 2019.

In the EU, too, Asian immigrants fare relatively well on the labor market. Their unemployment rate stood at 7.2% in 2019, 4 percentage points lower than for all those born abroad and only 0.6 points above the native-born unemployment rate. However, in 2019, the gap with the rest of the foreign-born narrowed slightly, and the employment rates converged. In Canada, the results of Asian immigrants are comparable with those from other regions. Although there too, the unemployment rate of the Asian-born increased slightly (+0.2 percentage points to 5.9%), while the global unemployment rate of foreign-born in Canada, did the opposite (-0.2 percentage points to 5.7%). The employment rate of Asian-born immigrants living in Australia, 69.8% in 2019, was lower than that of foreign-born overall (-2.5 percentage points). The same difference is observed for the participation rate, but the unemployment rates of both groups are similar: 5.7% (+0.1 percentage points) for the Asian-born and 5.5% for foreign-born overall (+0.3 percentage points).

		ployme	ent Rat	e	Unemployment Rate						Participation Rate					
Residence	Place of birth	2008	2014	2018	2019	Change 2018/2019 (% points)	2008	2014	2018	2019	Change 2018/2019 (% points)	2008	2014	2018	2019	Change 2018/2019 (% points)
United	Asia	72.2	68.5	70.4	71.4	1.1	3.9	4.8	2.6	2.4	-0.3	75.1	71.9	72.3	73.2	0.9
States	Foreign- born	70.8	69.1	71.6	72.2	0.6	5.9	5.8	3.5	3.1	-0.4	75.2	73.4	74.2	74.6	0.3
	Native- born	69.4	66.5	69.2	69.8	0.6	6.0	6.5	4.1	3.9	-0.2	73.8	71.1	72.2	72.7	0.5
Canada	Asia	69.9	68.5	72.6	73.3	0.6	7.1	7.7	5.7	5.9	0.2	75.3	74.1	77.0	77.9	0.8
	Foreign- born	70.7	69.4	73.8	74.4	0.6	7.2	8.0	5.9	5.7	-0.2	76.1	75.4	78.4	79.0	0.5
	Native- born	74.3	73.3	74.4	74.9	0.6	6.0	6.7	5.7	5.5	-0.2	79.0	78.5	78.9	79.3	0.4
Australia	Asia	67.6	66.6	69.4	69.8	0.4	5.8	6.5	5.7	5.7	0.1	71.8	71.2	73.5	74.0	0.5
	Foreign- born	69.8	69.6	72.0	72.3	0.3	4.7	6.1	5.2	5.5	0.3	73.2	74.1	76.2	76.5	0.3
	Native- born	75.0	72.7	74.9	75.7	0.8	4.2	6.3	5.4	5.2	-0.2	78.2	77.6	79.2	79.9	0.7
EU 28	Asia	63.2	63.5	66.1	65.8	-0.3	7.5	9.8	6.9	7.2	0.2	68.3	70.4	71.0	70.9	-0.1
countries	Foreign- born	66.8	62.0	65.0	65.7	0.8	9.3	15.9	12.0	11.1	-0.9	73.6	73.8	73.8	74.0	0.1
	Native- born	65.8	63.4	67.4	68.0	0.6	6.3	10.8	7.2	6.6	-0.6	70.3	71.1	72.6	72.8	0.2

Table 1.6:Labor Market Indicators for Native-born and Foreign-bornin the United States, Canada, Australia, and the European OECD countries(%)

EU = European Union, OECD = Organisation for Economic Co-operation and Development.

Note: The population refers to working age (15–64) for the employment and participation rates and to the active population aged 15–64 for the unemployment rate. The regions of birth could not be made fully comparable across countries of residence because of the way aggregate data provided to the secretariat are coded. The data for European countries refer to the first three quarters only.

Sources: European countries: Labor Force Surveys (Eurostat); Australia, Canada: Labor Force Surveys; United States: Current Population Surveys.

1.3.4 International Student Mobility to and from Asia

One of the main components of international migration is for study. The number of international students in the world increased by 4% in 2018 and reached almost 5.6 million. Among them, 2.9 million were Asian, which represents another rise of Asia's share as a region of origin, to 52%. Asia has also gained share as a region of destination in recent years; in 2018, its 800,000 international students enrolled comprised 14% of the global total. The PRC is the top Asian destination and expands its lead in the region every year. In 2019, more than 260,000 students were enrolled in the PRC's tertiary education institutions, 13% more than in 2018 (Figure 1.10). Japan is the other major Asian destination country and also sees a steadily growing number of international students (183,000 in 2018). Further behind,



the Republic of Korea follows with 85,000 international students in 2018 (+20%). Malaysia ranks fourth and is the only major country to see a decline. In 2019, Malaysia hosted only 82,000 international students, compared to 124,000 in 2016. In Singapore and in India, enrolments are stable at around 50,000 international students.

Asia has always been the main region of origin of international students in OECD countries. The number of Asian students enrolled in OECD universities jumped 8% in 2018 to approach 2 million, more than half of total enrolment.

Figures are not yet available for 2019, but the trends noted above are expected to largely continue. The severe disruption in international student flows in 2020 due to the COVID-19 pandemic, however, will doubtless show a sharp drop in flows and a smaller decline in total international student enrolment. Notably, the United States issued about 250,000 fewer student visas in the summer of 2020 than in the previous summer, many of which would have gone to students from the PRC.

1.4 Remittance Flows to Asian Countries

Global remittance inflows have continued to grow since 2000, although the rate has fluctuated. In 2019, total global remittance inflows reached \$717 billion, or about a 3% increase from the previous year. However, due to the COVID-19 pandemic, the estimation of the global remittance inflows reflects a decrease of 7%, or account for \$666 billion in 2020.



Between 2016 and 2019, remittances to Asian countries increased by more than 20%, following the trend of low and middle-income countries (LMIC), and topped \$300 billion for the first time in 2019 (Figure 1.11). This record is expected to be followed in 2020 by the sharpest decrease ever. Current provisional estimates by the World Bank (in October 2020) point to a decrease of around 7.4% for Asia, sending the amount of remittances to Asia under \$290 billion.

2019 was a record year for around half the countries in Asia (Supplementary Annex Table 1.3), including the major receiving countries, such as India (\$83 billion), the PRC (\$68 billion), the Philippines (\$35 billion), Pakistan (\$22 billion), Bangladesh (\$18 billion), Viet Nam (\$17 billion), and Indonesia (\$12 billion). In 2019, the Asian countries that registered the strongest increase were Mongolia (+27%), the Lao PDR (+19%), Bangladesh (+18%), Uzbekistan (+12%), and Georgia (+11%).

In 2020, projections suggest remittances will decrease for virtually all Asian countries. The sharpest drops in 2020 according to projections concern the Kyrgyz Republic (–23%) and Uzbekistan (–20%). In these two Central Asian countries, remittances expressed in US dollars are also influenced by the exchange rate of the ruble, which has been following a downward trend since 2017. In Indonesia, Malaysia, Georgia, and Thailand, remittance inflows are expected to fall by around 15%.

In Asia and the Pacific, the remittance inflows continue to grow, recorded of approximately \$315 billion in 2019. The share of remittance inflows to Asia and the Pacific has gradually increased in both global share and LMIC share (Figure 1.12). In 2019, the share of Asia and Pacific in the global share reached 44%, while the LMIC share shows around 58%.


1.4.1 Challenges Caused by the COVID-19 Pandemic on Remittances by Asian Subregions

The economic recession caused by the COVID-19 pandemic threatens the job security and well-being of over 91 million international migrants from Asia and the Pacific (ADB 2020). Due to the social distancing measures, lockdowns, and travel restrictions, the Asian Development Bank (ADB) estimates a significant drop in employment in Asia and the Pacific; thus, the projected decline of wage income to the range of \$359 billion to \$550 billion. Migrant workers are among the most vulnerable groups hit by the COVID-19 pandemic.

For some Asian countries, where remittances are a significant source of income, the decline in remittances will translate into a further decline in the gross domestic product (GDP). This is the case of the Kyrgyz Republic, where remittances made up one-third of the GDP in 2018. Following the declines in 2019 and 2020, they are set to account for only 25% in 2020 (Table 1.7). Nepal is in the same situation, with remittances representing traditionally a large share of the GDP, and a sharp drop in 2020, to stand at 23%. Following a smaller decrease, Tajikistan shows the highest ratio of remittances to GDP of the region in 2020 (26%). Paradoxically, this is also the lowest ratio Tajikistan registered since 2010. Other countries with large remittances inflows relative to GDP are Georgia (12%), Pakistan and the Philippines (9%), and Sri Lanka (8%). In the Philippines and in Viet Nam, the ratio fell back below the 2010 level.

	2000	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020e
Afghanistan		2.4	1.0	1.1	1.7	1.2	1.8	3.2	5.4	4.1	4.6	4.1
Azerbaijan	1.1	2.7	2.9	2.9	2.3	2.5	2.4	1.7	2.8	2.8	2.3	2.8
Bangladesh	3.7	9.4	9.4	10.6	9.2	8.7	7.8	6.1	5.4	5.4	5.8	6.2
Bhutan		0.5	0.6	1.0	0.7	0.7	1.0	1.6	1.7	1.8	1.7	2.1
Cambodia	2.8	1.4	1.3	1.2	1.2	2.3	2.2	1.9	5.2	5.8	5.9	5.9
Georgia	6.7	10.2	10.7	11.2	12.1	12.0	10.4	10.6	11.8	12.2	14.2	11.8
Hong Kong, China	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
India	2.8	3.2	3.4	3.8	3.8	3.5	3.3	2.8	2.7	2.9	2.8	2.9
Indonesia	0.7	0.9	0.8	0.8	0.8	1.0	1.1	1.0	0.9	1.1	1.0	0.9
Japan	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Kazakhstan	0.4	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.3
Korea, Rep. of	0.8	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0.5	0.5
Kyrgyz Republic	0.2	26.4	27.6	30.8	31.1	30.0	25.3	29.3	32.9	33.6	29.2	25.1
Lao PDR	0.0	0.6	1.3	0.6	0.5	0.3	0.6	0.7	0.7	1.5	1.5	1.5
Macau, China		0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0
Malaysia	0.4	0.4	0.4	0.4	0.4	0.5	0.6	0.5	0.5	0.5	0.5	0.4
Maldives	0.4	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Mongolia	0.1	3.7	2.4	2.6	2.0	2.1	2.2	2.3	2.4	3.5	4.2	4.0
Myanmar	1.1	0.2	0.2	0.5	2.7	2.8	3.4	3.7	3.7	3.8	4.3	2.8
Nepal	2.0	21.6	22.3	25.4	29.0	29.4	31.4	31.3	28.3	28.0	27.3	22.6
Pakistan	1.5	5.5	5.7	6.2	6.3	7.1	7.1	7.1	6.5	6.8	7.9	9.1
Philippines	8.5	10.8	10.3	9.8	9.8	10.1	10.2	10.2	10.5	10.2	9.9	8.8
PRC	0.1	0.2	0.2	0.2	0.2	0.3	0.4	0.3	0.2	0.5	0.5	0.4
Sri Lanka	7.1	7.3	7.9	8.8	8.6	8.9	8.7	8.9	8.2	8.1	7.8	7.6
Tajikistan		35.8	41.7	42.2	43.5	36.6	28.8	26.9	31.6	31.0	28.2	26.2
Thailand	1.3	1.3	1.4	1.4	1.6	1.6	1.5	1.5	1.5	1.5	1.3	1.2
Turkmenistan		0.2	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Uzbekistan		7.3	9.3	11.0	11.6	9.2	4.6	3.7		9.0	6.9	5.6
Viet Nam	4.3	7.1	6.3	6.4	6.4	6.4	6.8	5.8	6.2	6.6	6.5	5.8

Table 1.7: Share of Remittances in Gross Domestic Product by Economy, 2000 to 2020 (% of GDP)

.. data not available, PRC = People's Republic of China, GDP = gross domestic product, Lao PDR = Lao People's Democratic Republic.

Note: Figures for 2020 are estimates.

Source: World Bank Migration and Remittances Data.

Figure 1.13 shows the share of remittance inflows by subregions in Asia and the Pacific. The biggest shares of the remittance are represented by South Asia (44%), East Asia (26%), and Southeast Asia (24%), respectively. The three main contributing economies are India, the PRC, and the Philippines.



As mentioned above, many developing countries in Asia are among the largest remittance recipients, both in terms of total dollars and share of GDP. Accounting for 33% of migrant workers worldwide, Asia and the Pacific economies are considerably affected by the potential reduction of remittance inflows to the region. Remittances are a major source of income for families at home as well as external financial support, in addition to foreign direct investment and tourism receipts in many developing countries. ADB forecasts that total remittances to Asia would drop between \$31.4 billion (baseline scenario) and \$54.3 billion (worst-case scenario: 1-year impact) in 2020 (ADB 2020).

Table 1.8 shows the estimated loss of remittance inflows to Asia and the Pacific due to the COVID-19 impact. ADB's estimation is based on two scenarios (ADB 2020). First is the baseline scenario with the assumption that it would take around 6 months for economies to get the COVID-19 outbreaks under control and start to normalize economic activities. The second scenario—worst case—assumes that the outbreak control and resumption of economic activities would take at least 1 year.

By subregion, for the baseline scenario, South Asia would be hit worst by the COVID-19 pandemic, recording a fall of \$18.3 billion, followed by Southeast Asia (\$6.2 billion) and the PRC (\$3.5 billion). The worst-case scenario presented a similar impact to the three subregions with significantly higher percentage.

	Am o (\$ mi	ount illion)	% of Baseline		
Remittance Recipients	Baseline	Worst Case	Baseline	Worst Case	
Global	-57,603	-108,617	-9.7	-18.3	
Asia	-31,356	-54,255	-11.5	-9.8	
Australia and New Zealand	-29	-299	-4.7	-10.8	
Central Asia	-2,228	-3,366	-15.7	-23.8	
East Asia, excluding PRC and Japan	-716	-1,660	-7.0	-16.2	
Japan	-211	-497	-5.7	-13.3	
PRC	-3,493	-7,886	-5.6	-12.6	
Southeast Asia	-6,187	-11,660	-9.9	-18.6	
South Asia	-18,276	-28,621	-15.8	-24.7	
Pacific	-116	-267	-5.7	-13.2	

Table 1.8: Remittance Loss Estimates by Recipients

PRC = People's Republic of China.

Source: ADB (2020).

Taking a look at the sources of remittances to Asia and the Pacific, the biggest drop is estimated from the Middle East, from which the majority of remittances came, accounting for \$16.8 billion, followed by the United States (a decline of \$8.8 billion) in the baseline scenario (Table 1.9). The fall in remittances from the Russian Federation to the Central Asian economies was also significant. The sharpest declines by percentage from the baseline are evident for the Middle East and the Russian Federation in both scenarios.

A sudden stop in remittance flows will affect the lives and welfare of people and households in the region, particularly the ones in vulnerable groups: for example, those who are poor, older persons, and women. This suspension of remittance flows could push people into poverty due to loss of access to essential needs, education, and healthcare.

1.1

Table 1.9:	Impact on	Remittance	Inflows to <i>I</i>	Asia and th	ne Pacific by S	source Region	

	Amount (\$ million)		% of B	aseline
Remittance Source Region/Territories	Baseline	Worst Case	Baseline	Worst Case
Global	-31,356	-54,255	-11.5	-19.8
Asia	-1,624	-3,290	-2.6	-5.2
European Union and United Kingdom	-1,493	-3,397	-7.3	-16.6
United States	-8,768	-20,547	-8.6	-20.1
Middle East	-16,835	-22,481	-26.0	-34.7
Russian Federation	-1,564	-2,067	-25.5	-33.7
Rest of the world	-1,071	-2,472	-6.0	-13.9

Source: ADB (2020).

In response to such challenges, particularly its impact on international migration and cross-border labor mobility, a number of policy actions are recommended to improve the welfare of migrant workers and ensure remittance flows. These recommendations include (i) robust and inclusive social security systems for migrant workers and their family, (ii) access to social assistance and financial support, including health services, (iii) facilitation and flexibility in administration of labor migration and renewal process for migrants' working visas or permits, (iv) facilitation for fund-transfer services, and (v) adoption of digital technology and financial technology to promote remittance flows as well as support for digital remittance service providers.

Regarding the latter two points, the longstanding need to reduce remittance costs continues. There has been some progress in reducing the transaction costs since the 2010s, but it still has a way to go to achieve the goal set by the Sustainable Development Goals (SDGs) (Box 1.6.)

Box 1.6: Costs of Sending Remittances

An ongoing challenge to remittances are their persistently high costs. As of Q3 of 2020, the global average transaction cost of sending remittances was 6.75% (World Bank 2020b). This could be a result of the adoption of financial technology to facilitate remittance transfers. In Q3 of 2020, the global average of digital remittances was recorded at 5.29%, while the global average of nondigital remittances was 7.24%.

Figure 1.14: Average Transaction Cost of Sending \$200 Remittances to a Specific Country (%)



PRC = People's Republic of China.

Source: World Bank. World Development Indicators.

Figure 1.14 compares the average transaction cost of sending remittances (\$200) in different subregions in Asia. The average transaction cost in the Pacific Islands is the highest among subregions, while the average costs in South Asia and Central Asia are comparatively low. Unfortunately, the cost of sending money to home countries remains a pervasive constraint to maximize the benefits of remittances to many developing Asian economies. The World Bank indicated that bank services for remittance transfers remained the most expensive, with an average cost of 10.89%, while mobile money has been the least costly instrument for fund transfers. Given the fact that banks dominate the financial services sector in many economies in Asia and the Pacific, it could be a reason that pushes the transaction cost of remittances in some Asian subregions comparatively high. To achieve the Sustainable Development Goal (SDG) target of 3% for the global average to be reached by 2030 (SDG10.C), bank transaction fees must be reduced. The adoption of digital technology and financial technology will help to cope with this ongoing challenge, thus, facilitating higher flows of remittances to the region while moving toward the achievement of SDG10.C.

1.5 Conclusion

This chapter has traced the initial findings of the impact of the COVID-19 pandemic on a number of different aspects of migration in Asia, depicting how the spread of the pandemic radically altered the picture in 2020.

Through various factors, outflows from Asian countries decelerated dramatically, and sometimes came to a complete halt as migration channels contracted. Besides border closures, overall labor demand fell sharply due to economic conditions, reducing employment opportunities for everyone, including migrant workers from Asia. In addition, while many Asian migrant workers had their contracts extended by their employers to compensate for the absence of new arrivals, numerous others were forced by circumstance or law to return to their home country. Working conditions in the destination country labor markets have also become more challenging, with breaches of labor rights and health rules due to the difficult circumstances.

The impact of the COVID-19 pandemic on remittances is expected to be massive. In light of the fact that more than 1 year has passed since the start of the outbreak, Asian recipient countries are likely to see overall remittances loss of around 20%—perhaps as much as 25% for South Asia—relative to the pre-pandemic flows. This raises serious concerns at both the macroeconomic and individual levels. Indeed, in many Asian countries, remittances make up a significant share of GDP, and for many families in Asia, they are the main source of income.

To address the impact of these significant changes, policies in the region will have to adapt. This chapter underlined the importance of responses to ensure migrant workers' rights, at their workplace and in the host country, as well as the relevance of origin country policy responses to support migrant workers in difficulty, to repatriate those who need to return, and to assist them after return in this difficult context. The pandemic may be an opportunity for policy makers across the world to overhaul existing models and systems and design improved and resilient versions to better respond to future crises and their effects on migrant workers, and their families.

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CHAPTER 2

The Future of Labor Migration in Asia: Post-COVID-19 Pandemic

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2.1 Introduction

The novel coronavirus disease (COVID-19) pandemic occurred in the midst of a changing context for labor migration in Asia. Short-term policy changes and longer-term structural shifts in demographics and the nature of work were already forcing planners to consider how to prepare for new challenges. The pandemic highlighted some of the weaknesses in the governance of labor migration in Asia but also accelerated the impact of some policy shifts. This chapter examines medium and longer-term factors which will help shape labor migration in Asia in the next 15 years. It looks at the prospects for economic recovery and how this might affect different channels, and reviews some of the visible policy trends in destination and origin countries that could have a meaningful impact in the coming years. It then examines some underlying trends which could reshape the map—some of these are certain, while others are less sure. The chapter then reviews some of the failures of protection of migrant workers which became evident during the crisis and which will have to be addressed to "build back better".

2.2 Medium-term Economic Developments and Possible Impact on Labor Migration

Labor demand will recover unevenly

One of the main factors affecting migration in Asia in the next few years will be the speed of recovery of demand. Short-term economic growth in major destination and origin countries for Asian migrants is expected to be weak through 2021. The Organisation for Economic Co-operation and Development (OECD) *Interim Economic Outlook* forecasts in September 2020 (OECD 2020c) indicate growth expectations of –4.1% in the Group of 20 countries with a rebound of +5.7% in 2021. The rebound in 2021, however, is not universally expected to recover the losses of 2020. For example, the euro area is forecast to see a 7.9% gross domestic product (GDP) decline in 2020 and only a 5.1% improvement in 2021; the United Kingdom (UK) to decline 10.1% in 2020 and recover 7.6% in 2021. The picture in Asian OECD countries is also mixed: Japan is forecast to see a decline of 5.8% in 2020 and an increase of 1.5% in 2021, while the Republic of Korea is forecast to see a decline of 1.0% in 2020 and an increase of 3.1% in 2021.

The main non-OECD economies in Asia—the People's Republic of China (PRC), India, and Indonesia are also expected to recover fully in 2021. The PRC's growth, forecast at 1.8% in 2020, is expected to rise to 8% in 2021. India and Indonesia both saw shrinking GDP in 2020—forecast at –10.2% and –3.3%, respectively—but are expected to fully recover in 2021 (+10.7% and +5.3%, respectively). Saudi Arabia, the main destination for many labor migrants from Asian countries, is forecast to see a fall of 6.8% in 2020 and growth of only 3.2% in 2021. For most Asian countries, full recovery is expected in 2021, although the pandemic-related contractions amount to 1 year or more of lost growth.

Beyond the recovery horizon—and assuming that the pandemic is brought under control—the picture is less clear, but some trends suggest risks. The Gulf Cooperation Council (GCC) countries, the main destination of labor migrants, may see slack demand. The price of oil, which supports much of the economic activity in the region, is languishing and expected to remain low for some time. The International Energy Agency's (IEA) *Oil Market Report – October 2020* noted a forward curve for Brent crude, indicating prices below \$50 per barrel until 2023 (IEA 2020). The low oil price comes on top of a trend in the GCC countries toward restrictions on foreign workers to favor employment of nationals of these countries. The impact of such policies has been limited so far, but they indicate political will to constrain employer options in recruitment that may be reinforced in the case of austerity measures such as a reduction in public-sector hiring. The limited reserve of skills in the GCC countries means that nationalization of the labor market will likely only affect a part of deployment; these countries cannot wean themselves from their reliance on migrant workers in the short term.

Outside the GCC countries, additional clouds are on the horizon for deployment. Tourism is a major sector of employment in several Asian countries (e.g., Viet Nam, Thailand, Philippines, Indonesia, Nepal, and Maldives) and notably for migrant workers. Pandemic restrictions have severely constrained tourism and the resumption of leisure travel may take some time. This may affect opportunities for employment in both origin and destination countries, with hard-to-estimate effects on migration flows.

Policy shifts that may affect migration opportunities in the next few years

The short-term impact on deployment and demand in OECD countries, as described in Chapter 1, may have repercussions in the next few years through policy changes. For example, the Philippines introduced a limit on deployment of new agency or direct hires of healthcare workers to other countries. A protectionist stance to health workers may have an impact on flows, although these workers are a relatively small share of total flows.

Policy decisions taken outside Asia may also have an impact on migration flows from the region postpandemic. Some of these changes predate the pandemic or are unrelated to the pandemic, while others are in response to the pandemic.

Among OECD countries, the single largest destination for permanent migration from Asia is the United States (US), where permanent migration is subject to caps according to the country of origin. Lifting this cap, a policy proposal under discussion, would increase migration from India and the PRC to the US. Other signals from the US, however, suggest that migration from Asia could face more restrictions.

International student enrollments in the US, led by the PRC, took a substantial blow in the academic year 2020/2021, and it may not recover immediately, as discussed below. The H-1B visa for skilled temporary workers—one of the main channels for Indian labor migration to the US—saw restrictions imposed during the final months of the Trump presidency, which increased salary requirements and proposed a shift to a salary-based selection process rather than a lottery to assign visas within a highly oversubscribed program. According to the US State Department, the number of H-1B visas issued to

Indian nationals fell from 146,200 in 2019 to 44,300 in 2020. The decline was due to the suspension of issuance of visas, but the composition of future H-1B workers will be affected by the changes, with fewer lower-level and lower-salary staff. The incoming US administration has suspended the introduction of restrictive changes in the H-1B program. Restrictive conditions for students and temporary skilled workers have not been fully lifted. The longer such restrictions stay in place following the pandemic, the more they would have a disproportionate impact on migration from the PRC and India, which dominate inflows in these categories.

Australia's government adjusted its permanent migration planning levels downward in 2019, from 190,000 to 160,000 annually, reducing the ceiling for expected inflows in the next few years. While actual entries prior to the reduction were below the ceiling, and indeed closer to the new level, the shift represents less margin for expansion. The majority of permanent migrants to Australia are from Asia.

Canada, another major OECD destination for migrants from Asia, has announced an increase in its annual immigration levels through 2023, opening a path for additional migrants. The government targets permanent annual inflows at about 1% of the population and has announced levels which rise from 401,000 in 2021 to 421,000 in 2023. Many of Canada's permanent residents are former temporary residents—students or workers—so the use of these uncapped channels is expected to become more attractive.

The UK has exited the European Union (EU) and is introducing a new labor migration policy, more open to highly qualified non-EU nationals than under the previous free movement regime. Unlike the previous scheme, there is no cap on the admission of qualified foreign employees meeting skills and salary requirements. This opens more opportunities for skilled English-speaking Asians, in particular in South Asia, from which skilled labor migration was constrained due to a cap on annual issuance of work visas. No change, on the other hand, is expected in the position of the UK regarding lower skilled workers.

A further question mark on migration to the United Kingdom is its extension of residence possibilities to Hong Kong, China residents with British national (overseas) status (Box 2.1).

Box 2.1: Potential Shifts in Outflows from Hong Kong, China

British national overseas passport holders

Migration from Hong Kong, China is likely to increase in coming years as some destination countries loosen restrictions specifically for migrants from there. From 2021, the United Kingdom (UK) plans to offer "leave to remain" for up to 5 years to Hong Kong, China residents who possess a British national (overseas) passport (BNO). During that time, they may work or study; after 5 years, they can apply for British citizenship. Several hundred thousand people already hold these passports, and well over 2 million people are eligible. When the dependents of BNO holders are included, the UK government estimates that as many as 5.4 million Hong Kong, China residents may be eligible to migrate to the UK under the new policy, over 70% of Hong Kong, China's population (UK Home Office 2020). In estimating likely migration under the program, the UK government expects between 260,000 and 320,000 BNO holders and their dependents to arrive between 2021 and 2025. Indeed, even if only a small share of those eligible end up taking advantage of this migration opportunity, the channel has the potential to shift migration patterns. If there is a large outflow of Hong Kong, China residents, countermeasures to discourage departure are possible.

Several other OECD countries, including Australia, Canada, and Japan, have made or are considering small-scale changes to their immigration practices and regulations in order to allow for greater immigration from Hong Kong, China. Australia has relaxed restrictions on temporary migration for persons from Hong Kong, China. Students from Hong Kong, China in Australia will receive a 5-year post-graduate

Box 2.1 continued

extension, and temporary skilled visa holders will be able to stay for 5 years, allowing application for permanent residence.

Finally, the changing circumstances may affect immigration into Hong Kong, China, although with small impact on flows of high-skilled labor in the region. According to the Government of the Hong Kong Special Administrative Region of the People's Republic of China, 2020 saw the first decrease in 11 years, albeit a limited one, at 2.8%, in the number of foreign companies with offices in Hong Kong, China.

Source: Prepared by authors.

The picture for EU countries presents a mixed situation. Lower demand post-pandemic in EU OECD countries could limit migration opportunities for Asian migrants. At the same time, however, more proactive recruitment of international students and highly qualified workers could lead to an uptick in flows from Asia.

In the medium-skilled occupations, EU countries have been expanding their "skills mobility schemes" for the recruitment of nationals of non-EU countries. These recruitment schemes often include a training component, in which candidates are trained to the standards of EU employers and then eligible for accelerated recruitment pathways. In the health sector particularly, these may become a more common model, opening additional migration possibilities for migrants from Asia.

Policy decisions in OECD destination countries in Asia—Japan and the Republic of Korea —may also affect migration opportunities for labor migration in the region. Japan had expected the next few years to see the full implementation of a new scheme for specified skilled workers (SSW), introduced in 2019 and targeting up to 345,000 new labor migrants in different industrial sectors by 2024. The initial uptake of the program was underwhelming, in part due to delays in rolling out the testing infrastructure and defining the criteria for different sectors. However, the SSW status has the potential to allow many of today's technical interns to extend their stay in Japan and work for an additional 5 years if not more (Box 2.2).

Box 2.2: Potential Increase in the Number of Migrant Workers in Japan

Japan's Specified Skilled Worker Program

The first year of the Specified Skilled Workers (SSW) program saw only 4,000 recipients of this status, of which nine out of ten had changed status from the Technical Intern Training Program (TITP). Notably, the TITP limits the maximum stay to 5 years, so participants in the TITP were unable to extend their stay in Japan. The SSW program offers qualified TITP employees, whose employer is willing to support them through the process, an opportunity to further extend their stay in Japan. The next few years will see a growing number of TITP participants reach the end of their stay. The TITP has continued to expand its participation, rising from 192,600 participants in 2015 to 411,000 at the end of 2019. Even with the pandemic, the number of TITP workers in June 2020 stood at 402,400. About 219,500 were from Viet Nam, up from 57,600 in 2015. With the potential for this growing cohort of workers to transfer from the TITP to the new SSW scheme, Japan may become a rapidly growing host of labor migrants in the region even if the SSW scheme rarely sees direct recruitment in origin countries. Not all TITP participants will be able to meet the requirements of the SSW, but the TITP should continue to increase along with the tight Japanese labor market for less skilled jobs, and the SSW program will contribute to accelerate the trend of an increasing stock of labor migrants working in Japan.

Sources: OECD (2020b), ADBI-OECD-ILO (2020), Immigration Services Agency of Japan (2020).

Mixed signals, on the other hand, can be seen in the Republic of Korea, where the temporary nonprofessional employment permit system has seen its numbers plateau since 2019, even prior to the pandemic. The quota set annually by the Foreign Manpower Committee stood at 56,000 in 2019 and 2020, but was lowered to 52,000 for 2021. There has been a reduction in allocations away from the manufacturing sector, but a recovery of growth in this sector, as expected, would again increase pressure to keep admission levels stable or even to raise them. Indeed, for firms in certain industries, criteria for recruitment in the program were loosened. Demand in agriculture and fisheries is expected to remain strong, although these sectors comprise only a small part of the employment permit system. For 2021, their allotment was kept at the 2020 level and comprised 18% of the total.

In other Asian destinations, policies in place prior to the pandemic to reduce the employment of less skilled migrant workers are likely to continue in Singapore and Malaysia. These policies have had a limited effect so far, but have the potential to constrain opportunities for migrant workers.

International student flows may shift

As presented in Chapter 1, international student movements have been growing. In 2018, 5.6 million students studied outside their country (OECD 2020a). However, growth rates of international student enrollment globally have slowed in the last decade (OECD 2020a). The British Council estimated in 2018 that annual average growth in outbound mobility of international students, which stood at 5.7% from 2000 to 2015, will fall to 1.7% by 2027, with the PRC and India remaining the largest sending countries, comprising 60% of growth in 2027 (British Council 2018). Other large origin countries are expected to include Pakistan and Bangladesh, as well as Nigeria. Prior predictions based on rapid growth expected international enrollment to reach 8 million by 2025 (OECD 2012, Bohm et al. 2002), but this now seems unlikely.

The disruption of mobility severely affected international student movements in 2020 and this disruption is expected to persist for several years. As noted in Chapter 1, there are almost 3 million international students from Asia, comprising more than half of all international students globally. About 1.2 million international students study in Asia, a growing share of the global total. Many international students were unable to attend the start of term abroad in 2020.

The decline was notable worldwide. One estimate for the five main English-speaking destination countries (US, Canada, UK, Australia, and New Zealand), which account for 54% of total international student enrollment in OECD countries, put the 2020 new enrollment figures at just one-third the level of 2019 (Ross 2020). Some countries largely closed their borders in 2020, with few international students admitted. Australia, Canada, and New Zealand largely ceased admissions of international students, leaving as many as 300,000 Asian students locked out compared to the usual inflows. Most international students in the US come from Asia. The US State Department reported issuing 230,000 student (F-1) visas in 2019 to nationals of Asian countries (excluding Central Asia, Southwest Asia, and the Pacific). This number was just 54,000 for 2020. The decline was particularly sharp for PRC nationals from the PRC, the single largest category: only 4,800 visas were issued over 2020, compared with 106,000 in 2019.

Faced with mobility restrictions, potential international students had several options: defer their plans, shift to another destination, renounce their plans to study abroad, or take advantage of online classes where offered. Some indeed chose to continue their courses online, with the hope of completing their degree on time or of resuming in-person studies when possible.

The question of whether enrollment has only been deferred, or if the cohort of expected 2020 international students will end up being smaller, is not yet known.

Some analysts predicted in mid-2020 that in 2021, universities will receive a much larger number of international foreign students, as new students and students who deferred their studies arrive on campus at the same time. One estimate predicts that 1.85 million international students may begin their degrees in the five English-speaking countries, up from 1.09 million in 2019 (Ross 2020). Some higher education institutions expect a spike in enrollments once vaccines are rolled out in 2021 and mobility restrictions are eased. Further, past economic shocks have seen an uptick in enrollment in graduate programs, and at the graduate level, more undergraduate students may decide to enter graduate schools if the labor market remains weak. However, undergraduate enrollment is less likely to rebound. Indeed, a survey in May 2020 (QS I-GAUGE 2020) found that slightly more than half of Indian students had planned to study abroad, and of those, about half were reconsidering. The field of study made only a small difference: those studying humanities were slightly more likely to reconsider than those studying science, technology, engineering, or mathematics (STEM) (52% compared with 47%).

In terms of shifting destinations, surveys show that students who intended to study overseas in 2020 are unlikely to change their destinations to a different overseas location (Durnin 2020). However, students applying for the first time in 2021 may find new locations more attractive. Countries that more competently contain the virus and roll out the vaccine may be well positioned to win these students over destinations where lockdowns were longer and transmission widespread. However, the slow vaccination rates and persistence of international travel bans into 2021, along with weak interest in international study, suggest that traditional destinations such as New Zealand, Australia, and Canada will have difficulty rapidly recovering their role as magnets for international study.

Once the restrictions on mobility start to be lifted, universities may begin more aggressive recruitment for international students to make up for the loss of revenue during the pandemic years, increasing competition among destination countries and institutions.

The pandemic effect represents a setback to the ongoing commitment by many Asian destinations to increase enrollment of international students. The PRC, Japan, the Republic of Korea, and Malaysia have all set goals to increase international enrollment in the near term. Japan recently reached its goals to attract 300,000 international students by 2020 (JASSO 2020). After flattening in the first half of the 2010s following the 2011 tsunami, Japan's enrollments continued to grow steadily and even accelerated: from 2017 to 2018, international enrollments increased by 12%, with 10% growth in higher education and 14.5% growth in Japanese language schools. Of 312,200 international students in Japan in 2019, only 142,700 were enrolled in undergraduate and graduate education, while 83,800 were in Japanese language schools.

Malaysia's government published an "Education Blueprint" in 2015 that set a goal of increasing the number of international students from 108,000 in 2015 to 250,000 by 2025. In April 2018, India's government launched a "Study in India" initiative with a goal of increasing foreign student enrollment from about 45,000 to 200,000 by 2023. Growth in the enrollment of international students has been high in these countries for several years.

The PRC in 2012 had set a target of 500,000 international students by 2020, a goal it announced it had reached in 2020 before the pandemic interrupted inflows (although only 150,000 of these students in 2020 were in degree programs). International enrollments in the PRC increased by a yearly average of 10% between 2006 and 2017, but growth was less than 1% from 2017 to 2018. The PRC has aimed to attract students with scholarships for international students, especially students from Africa and from countries in its Belt and Road Initiative. Currently, African students represent the second largest group of international students by region in the PRC, after Asian students, numbering 81,600 students in 2018 (Ministry of Education of the PRC 2019).

If key destinations in Asia—including the PRC, Japan, Republic of Korea, and Malaysia —reach their enrollment goals, they will together host 1.5 million international students by 2025, collectively adding an additional 300,000 students to their 2018 numbers.

By 2023, vaccines should be widely available globally and the direct effects of the coronavirus on student mobility, e.g., border closures, university closures, etc., should have ended or been greatly reduced. However, international student mobility may take more than 10 years to return to normal levels, according to some researchers. Australia, which had a high dependence on international students before the pandemic, may take longer to recover, while countries in Asia and very popular destinations like the UK and US may see a return to pre-pandemic enrollment levels sooner.

2.3 Longer-term Effects of Demographic Changes and Technological Changes

Demographic and technological changes are certain

Beyond the short- and medium-term effects of COVID-19, there are a number of powerful and interconnected megatrends that will have a significant impact on migration in the coming 10–15 years, although the precise extent and direction of these impacts is unknown. This is the case notably for demographic and technological changes.

Globally, the population aged 60 or older is expected to outnumber people aged 10–24 by 2050. Population aging is a reality in many parts of the world, notably in OECD countries. The potential support ratio—the number of working-age persons (aged 25–64) relative to those over age 65 has dropped below 2.0 in Japan and below 2.5 in several European countries (Figure 2.1).

Asian countries are split in two groups. The first is composed of rapidly aging populations, with low fertility, and high or increasing life expectancy. This group includes diverse countries such as the PRC, Japan, Republic of Korea, and Singapore. In Japan for example, the working-age population (aged 15–64) is forecast to fall by more than 12% between 2020 and 2035 (IPSS 2017), corresponding to about 10 million fewer working-age residents. In the PRC, the working-age population is now thought to have peaked in the 2010s; the decline in the working-age population is forecast at about 10% between 2020 and 2035. In all these countries the dependency ratio will be well over 50 in 2035; it is expected to reach up to 77 in Japan (UN DESA 2019).

The other group of countries is located outside East Asia and includes countries with a large or rapidly growing youth population. These include the population giant India, but also for example, Southeast Asian countries such as Indonesia and the Philippines or South Asian countries such as Pakistan or Bangladesh.

The demographic transition will spread to new countries and longevity will likely continue to improve in coming decades in most Asian countries. The rising number of elderly people relative to the number of people of working age may have an impact on labor markets with potential labor shortages emerging in specific regions, sectors or occupations, at different skill levels. The risk of shortages is especially acute in occupations where labor demand is likely to increase because of aging itself, such as healthcare or domestic services.

These demographic trends will be felt in different ways. In rapidly aging countries, cohorts exiting the working-age population are substituted by smaller cohorts of young people, leading to a smaller overall workforce. The education characteristics of the youth workforce, however, do not mirror those of the



retiring workforce, potentially creating demand for workers in these jobs. What is more, the rising number of elderly people changes demand for services. Healthcare, age care, and domestic services are expected to be in more demand, even as the resident workforce in these sectors ages and is less able to perform physically-taxing jobs or work long shifts.

In other Asian countries with still increasing youth cohorts, one of the challenges will be to provide young people with skills development opportunities and upskilling that matches the demand for jobs. Failure to achieve this goal may contribute to increasing the number of people looking for employment opportunities abroad. However, in a context where GCC countries may need fewer migrant workers and other potential destination countries look for specific skills, migration may relieve the pressure on the labor market of origin countries if—and only if—skills development programs and labor migration schemes are fully integrated (e.g., skills development partnerships).

More generally, the impact of demographic changes on migration will depend on the speed at which the digital transformation and automation take place as they have the power to drastically transform the demand for labor. Medium and high skilled-jobs, notably in the IT sector, may be in demand, while lesser skilled and routine jobs in manufacturing and the service sector may progressively disappear.

Technological evolution in the workplace is expected first in higher-wage developed countries. OECD estimates that in the next 2 decades, 14% of all jobs across 32 OECD countries face a high risk of automation, while a further 32% of jobs may experience significant changes in how they are carried out. In OECD countries, migrants are highly exposed to transformations: in European OECD countries more than 40% of foreign-born workers are in occupations dominated by routine tasks (OECD 2020d). Migrants with lower education levels may struggle to adapt to changes; those without mastery of the language of the host country are also at a disadvantage in moving into more complex and communication-based jobs. Paradoxically, however, occupations most at risk of automation may appear less attractive for resident workers, who prefer to go into occupations with a more promising

future. Recruitment difficulties may actually increase for the jobs that are expected to be phased out, making recourse to international recruitments increase-at least temporarily.

About half of all migrants worldwide are living in OECD countries, and one-third of them are tertiary educated, with this share increasing rapidly over the past decades. Meanwhile, highly skilled migration to non-OECD countries remains marginal. However, some emerging economies and the Gulf countries, are transitioning to more knowledge-based economies and adopting skill-selective immigration programs and policies.

Within the ASEAN-5 (Cambodia, Indonesia, the Philippines, Thailand, and Viet Nam), an International Labour Organization (ILO) analysis (Chang and Huynh 2016), using a different methodology than the one used in the OECD estimates, found that about 56% of jobs are at risk of automation by 2035 (Figure 2.2). The analysis also found that women were more likely to be employed in jobs at risk of automation, especially in the Philippines and Viet Nam, and that less-educated workers were more exposed.



Figure 2.2: Employment by Gender and Risk of Automation by 2035, ASEAN-5

Note: Includes workers aged 15 and above. ASEAN-5 represents the aggregate total of Cambodia, Indonesia, Philippines, Thailand, and Viet Nam. Low automation risk <30%; medium 30-70%; high >70%.

Source: Labor force survey based estimates in Chang and Huynh (2016).

New poles of attraction for migrants in East Asia?

The PRC is actively pursuing a transformation from an export-oriented, low-skilled, and laborintensive economy to a science, technology, and innovation-based economy, a transition that demands highly skilled workers. To this end, the PRC government is introducing specific schemes and policies to attract educated and skilled international migrants, as well as PRC professionals working overseas. In 2018, the PRC introduced a new visa category for foreign talent to support the PRC's proactive research and development strategy. Moreover, the PRC could tap its diaspora, both emigrants and their descendants, to increase flows toward the PRC. Currently, 80% of the PRC's international students return to the PRC after studying abroad (Ministry of Education of the PRC 2020).

Additionally, the PRC has become a major destination for international students. It has multiplied the number of scholarships for international students as well. Singapore is another non-OECD country attracting qualified foreign talent. In addition to creating special work visa categories targeting researchers and scholars, a government agency facilitates outreach to skilled foreigners and potential Singaporean returnees including students, highly skilled professionals and workers, entrepreneurs, and investors.

By 2035, the PRC and other non-OECD countries in Asia may indeed become magnets for top global talent, inducing talent to move, stay and raise families, attracted by the quality of life, better economic prospects and salaries compared to OECD countries. As the competition for talent gets tougher, OECD countries may find it increasingly difficult to attract or retain skilled workers, while remaining reliant on immigrants to supplement their labor force in the face of aging populations

Climate change will have an effect on migration

One of the developments expected to affect migration—including labor migration—in Asia are the anticipated climate-related changes (Box 2.3). Changing climate can affect agricultural output and the frequency of natural disasters, as well as the habitability of certain zones (Table 2.1).

Risk	Risk Level	Climate Drivers	Areas of Risk
Food insecurity due to crop failure, lower crop production, and/ or drought	Medium	Rising temperatures Drying trends Extreme precipitation Extreme temperatures Cyclones Sea level	PRC Pakistan/North India South India Bangladesh/East India Myanmar Thailand Cambodia Lao PDR Viet Nam Philippines Indonesia Western Japan
Water shortages	High	Rising temperatures Drying trends	Arid areas Northern PRC Kazakhstan Uzbekistan Turkmenistan
Increased riverine, coastal, and urban flooding	Medium	Extreme precipitation Sea level	India Bangladesh PRC
Increased risk of heat- related mortality	High	Rising temperatures Extreme temperatures	Aging populations Urban areas
Increased risk of water and vector-borne disease	Medium	Rising temperatures Extreme temperatures Drying trends Extreme precipitation	PRC West Asia South Asia
Exacerbated poverty, inequalities, and new vulnerabilities	High	Rising temperatures Extreme temperatures Drying trends Extreme precipitation	Rural areas Food importing countries (Bangladesh) North Asia: indigenous peoples

Table 2.1: IPCC 2014 Climate-change Hazards and Risk Levels in the Near Term (2030-2040)

IPCC = Intergovernmental Panel on Climate Change, Lao PDR = Lao People's Democratic Republic, PRC = People's Republic of China. Source: Adapted from Hijioka et al (2014).

Box 2.3: Climate Change and Migration in Asia

Countries in Asia and the Pacific rank consistently high in indices of countries most affected by climate change. Asian countries comprise seven of the ten countries most affected by long-term climate risk in the past decade (Table 2.2). This is mirrored in forecasts of future climate change effects. Interacting effects of environmental change, poverty, and demographic change exacerbate vulnerabilities and have the potential to both spur and constrain mobility. In the past, climate change has affected migration in Asia through temporary and internal displacement. In 2019, the four countries with the highest number of newly displaced people due to disasters were all in Asia: India (5.01 million), Philippines (4.09 million), Bangladesh (4.09 million), and the PRC (4.03 million) (IDMC 2020). However, as the environmental changes begin to affect the productivity of arable land, water resources, coastal regions, etc., climate change may indirectly motivate migration by destabilizing livelihoods through food insecurity and conflict over resources.

CRI 1999- 2018	(1998- 2017)	Country	CRI Score	Death Toll	Deaths (per 100,000 Inhabitants)	Total Losses (in \$ million)	PPP Losses (per unit GDP in %)	Number of Events (total 1999– 2018)
1	(1)	Puerto Rico	6.67	149.90	4.09	4,567.06	3.76	25
2	(3)	Myanmar	10.33	7,052.40	14.29	1,630.06	0.83	55
3	(4)	Haiti	13.83	274.15	2.81	388.93	2.38	78
4	(5)	Philippines	17.67	869.80	0.96	3,118.68	0.57	317
5	(8)	Pakistan	28.83	499.45	0.30	3,792.52	0.53	152
6	(9)	Viet Nam	29.83	285.80	0.33	2,018.77	0.47	226
7	(7)	Bangladesh	30.00	577.45	0.39	1,686.33	0.41	191
8	(13)	Thailand	31.00	140.00	0.21	7,764.06	0.87	147
9	(11)	Nepal	31.50	228.00	0.87	225.86	0.40	180
10	(10)	Dominica	32.33	3.35	4.72	133.02	20.80	8

Table 2.2:The Long-term Climate Risk Index (CRI):The 10 Countries most Affected from 1999 to 2018 (annual averages)

PPP = purchasing power parity.

Source: Adapted from Eckstein et al. (2019).

In this context rural-to-urban migration may increase as people move from no longer productive land to the cities. By 2030, the urban population in Asia is estimated to reach 2.5 billion (ADB 2012). Several megacities—in particular, Dhaka, Calcutta, and others—will undergo the dual stresses of climate change and increasing populations, managing both storm surges and flooding, as well as inadequate housing, public services, pollution, and further environmental degradation (DePaul 2012). As urban populations grow in "gateway cities", residents may choose to migrate internationally along established corridors.

Source: Prepared by authors.

Multilateral and regional declarations have called attention to the special needs of environmental migrants, but little action has been taken. The Global Compact for Migration makes explicit reference to environmental causes of migration and calls for greater data collection and multilateral cooperation. Within Asia, the Colombo Process is the most established regional consultative process for managing labor migration and has called for greater research into the environmental causes of migration.

More attention to health will be given in the migration process

Health examinations are a standard and longstanding practice for temporary or permanent migrants in a number of OECD countries. A few OECD countries have long required medical checks, administered by the authorities, as part of their permit issuance procedure. Other countries exclude persons with certain chronic conditions from access to permanent residence. Health assessments are also common for resettled refugees and for asylum seekers. Tourists and other short-term visitors (including business visitors, students, transporters, etc.) have usually been exempt from health screening but in some countries they may have to prove they have been vaccinated for a range of infectious diseases, or that they have health insurance coverage.

The need to revisit health screening in the context of international mobility was already under discussion prior to the pandemic, prompted by a resurgence of tuberculosis in a number of OECD countries. However, with COVID-19, this issue has gained particular relevance (Box 2.4). Asian migration may be transformed in the future with new screening systems and health obligations, including in terms of sharing personal data.

Box 2.4: Health Screening and Migration

As borders began to reopen in the middle of 2020, many economies deployed new health-tracking technologies. These include Hong Kong, China's smart wristband and mobile app for monitoring arrivals' quarantine; Taipei,China's electronic fence—which works in a similar way to Hong Kong, China's monitors; and Thailand's SydeKick app that functions as both a location tracker and a means of notifying individuals who may have come into contact with an infected traveler. More globally, the CommonPass piloted an app in October 2020, and the International Air Transport Association announced its own travel pass app.

In the meantime the pandemic has also revealed inequalities within national systems. Despite making up only 6% of the population, migrants living in dormitories in Singapore accounted for 94% of the infections in the city state (Goh et al. 2020). Migrants' healthcare is provided by their employers and are normally excluded from accessing universal health care in Singapore; however, the outbreaks caused Singapore's government to extend healthcare in the form of free treatment for COVID-19, treatment in their native language, and testing in the dormitories. This crisis could actually be seen as an opportunity to improve the health coverage of Asian migrant workers, an issue of priority importance in some destination countries.

Source: Prepared by authors.

2.4 Building Back Better: Rights and Standards for Migrant Workers¹

This section identifies some of the key concerns that emerged during the pandemic in terms of conditions and rights of migrant workers. It passes from the emergency response to more structural and longstanding deficiencies in labor migration governance, wage protection, housing, and social protection.

Improve emergency preparedness

One area for immediate action is integrating migrant workers in emergency preparedness plans at the company, embassy, national, bilateral, or regional level: this was found to be lacking and is essential for the future. Emergency preparedness plans should be gender-responsive and developed through stakeholder consultation to ensure a cohesive and responsive whole-of-society approach. Data collection and mapping of the profiles and location of migrant workers should be complete, with due consideration for privacy and confidentiality.

In a joint statement of the ASEAN Labor Ministers on Response to the Impact of Coronavirus Disease 2019 (COVID-19) on Labor and Employment, adopted on 14 May 2020, the ministers agreed, with regional solidarity, to continue to strengthen cooperation on addressing the impact of COVID-19 on labor and employment (ASEAN 2020). The joint statement, which recognizes the vulnerability of migrant workers, among other things, tasked the ASEAN senior labor officials to undertake joint efforts to promote preparedness of labor and employment policies for the adverse impact of potential pandemics, economic crises, or natural disasters in the future.

Contingency funds to cover repatriation costs should be considered at the national level. Coordination mechanisms, a whole-of-government approach, transparency, and effective communication with migrants (targeted and in the appropriate language) are also critical.

Box 2.5: Emergency Preparedness Planning in a Crisis Context

One example of a national preparedness plan in ASEAN is Singapore's Homeland Crisis Executive Group, which was established after the 2003 Severe Acute Respiratory Syndrome (SARS) crisis and the 2009 H1N1 influenza crisis to coordinate and mobilize across government agencies (ILO 2020a). It includes a Disease Outbreak Response System Condition framework specifically focused on healthcare infrastructure. In January 2020, Singapore also established a Multi-Ministry Task Force to address the COVID-19 crisis. As a result of this preparedness and coordination, Singapore was able to quickly confirm and address cases of COVID-19 and quarantine and trace infected persons (ILO 2020a). However, later clusters of infections in migrant workers' dormitories revealed an overlooked segment of the population requiring support and safety measures.

¹ This section draws on ILO, "Supporting migrant workers during the pandemic for a cohesive and responsive ASEAN Community", draft thematic background paper for the 13th ASEAN Forum on Migrant Labour, 10, 12 November 2020 (ILO 2020a).

Strengthen labor migration governance

Experiences in the ASEAN region, the GCC countries (where many Asian workers reside), and elsewhere, have demonstrated that migrant workers are among the most vulnerable groups during the COVID-19 pandemic. Some of these vulnerabilities reflect structural weaknesses in the model of labor migration, which is followed by most countries in Asia, with one or two exceptions. The migrant worker admission and employment model implemented in Asia and in the GCC countries is based on relatively liberal entry, restricted rights, and limited sojourn.

The liberal entry condition has brought benefits to many, including migrants and their families, employers, and economies. However, a system of restricted rights has inflicted poor living and working conditions on many migrants, has been faulted for low wages, and has contributed to high migration costs for many workers. Even if migrants double what they were earning before migration, wages for many migrant workers are low.

Fair wages, equal treatment in social protection, and decent living conditions for migrant workers should be key considerations when admitting migrants and during their employment. This includes the recognition of domestic work as work as well as putting top priority on safety from violence for women through quality essential services (shelters, hotlines, counselling, health, and law enforcement) (ILO 2020a).

Enhance wage protection and improve wages

Widespread problems with wage and benefits nonpayment, delay, or reduction experienced by migrant workers during the COVID-19 crisis (ILO 2020b) have highlighted the urgent need to improve migrant workers' wage protection. Similarly the lack of access to decent housing points to the low wage levels that do not allow, in any case, the renting of suitable accommodation.

Migrant workers have benefitted from minimum wages in Japan, the Republic of Korea, Malaysia, and Thailand, and from mandatory electronic wage transfers in the GCC countries and Thailand (sea fisheries). Wage protection systems prevent underpayment by requiring employers to pay workers' wages electronically via authorized financial institutions to make payments transparent and traceable. While these systems have undeniably provided greater stability in wage payments, limitations still exist in the form of the lack of effective enforcement in cases of breach, and limited coverage of domestic workers (ILO 2020c). A recent review of the Qatar wage protection system found that a substantial proportion of eligible workers are still not covered, particularly within small enterprises, and that the severity of violations are not captured. Penalties are also limited to deter violators (ILO 2019a).

Further, during crises, and as witnessed during the pandemic, there is a need for wage guarantee mechanisms to address wage arrears resulting from a sharp business downturn or collapse. There are a number of wage and humanitarian support funds in Asia (and the GCC) including the Singapore Migrant Workers Assistance Fund, the Hong Kong Protection of Wages on Insolvency Fund, the United Arab Emirates Wage insurance scheme, the PRC contingency wage funds, the India Building and Other Construction Workers Act, and most recently Qatar's Workers' Support and Insurance Fund (ILO 2019b). These funds are usually partly or wholly industry or employer financed and can be seen as a good practice and considered for extension in the region.

ILO Convention No. 131 on Minimum Wage Fixing describes in Article 3 the elements to be taken into consideration in determining the level of minimum wages. These are (i) the needs of workers and their families, taking into account the general level of wages in the country, the cost of living, and relative standards of other social groups; and (ii) economic factors, including the requirements of economic development, levels of productivity, and the desirability of attaining and maintaining a high level of employment. As per the convention, ratifying countries are to create or maintain the necessary machinery to set the minimum wage and adjust it from time to time. Countries in Asia and the Pacific that have ratified the convention include Australia, Japan, Malaysia, Nepal, the Republic of Korea, and Sri Lanka. Further, other countries that have a minimum wage system in the Asia and Pacific region include New Zealand and Thailand. In practice, some groups of workers (like domestic workers) are often excluded from minimum wage provisions in Asia.

Singapore does not implement a minimum wage but has in place a "progressive wage model", the purpose of which is to increase wages of workers through the upgrading of skills and improving productivity. It targets the cleaning, security, and landscape sectors. The coverage, however, is limited to citizens and permanent residents only.

The GCC countries do not have a minimum wage (with the notable and recent exception of Qatar), and therefore most South Asian countries and the Philippines have unilaterally stipulated minimum referral wages for workers proceeding overseas. The Philippines (\$400) and Sri Lanka (\$300) have a single rate regardless of the country of destination and sector, which is perhaps easier to monitor, while India and Nepal have defined different rates depending on destination, occupation, and skill level (ILO 2020c).

There is a need to extend minimum wage provisions to all migrant workers (in the concerned countries), and strengthen freedom of association and collective bargaining, benefitting both migrant workers and nationals. The coverage of the progressive wage model should cover migrant workers (Singapore).

Besides administratively set minimum wages (in a tripartite setting or where the public authority plays a main role), collective bargaining among social partners is a vital means to set fair wages for workers. This highlights the importance of social dialogue, increased membership of migrant workers in trade unions, and robust worker and employer organizations. The coverage of workers in collective bargaining agreements in the Asian region is however low.

Even where there are minimum wages in Asia, generally the minimum wage is low. Besides there are still many low quality jobs—low wages and poor working conditions—especially in small and microenterprises where many migrant workers are employed, as for example in the Republic of Korea (OECD 2019). These jobs themselves are low productivity, suggesting that without productivity gains, it will be difficult to raise wages substantially (OECD 2019).

International labor standards guarantee all migrant workers, irrespective of their immigration status, equality of treatment in respect of rights arising out of past employment as regards remuneration, social security, and other benefits. These include severance pay, employment injury benefits, compensation in lieu of any holiday entitlements, and reimbursement of any social security contributions (ILO Migrant Workers [Supplementary Provisions] Convention, 1975 [No. 143], Article 9, and Migrant Workers Recommendation, 1975 [No. 151]). All migrant workers irrespective of their immigration status must also be able to seek redress for wage related violations. It is essential to guarantee these principles in national labor laws, and to ensure that these rights are not undermined by immigration laws requiring swift repatriation of workers whose work permits have expired or cancelled due to job loss (ILO 2020a).

Improve housing

Clusters of COVID-19 infections in migrant workers, housing in Singapore and Malaysia have highlighted the need to establish and strengthen minimum specifications of the nature and standard of the accommodation and facilities provided to migrant workers by their employers. The accommodation must include basic utilities, including water, sanitation, food, storage, and heat, as well as quarantine areas that offer health, sanitation, and logistics support (ILO 2020d).

The right to an adequate standard of living stipulated in international human rights law includes the right to housing. The ASEAN Consensus on the Protection and Promotion of the Rights of Migrant Workers (2018) stipulates that migrant workers have the right to adequate or reasonable accommodation. The ILO Workers' Housing Recommendation, 1961 (No. 115) provides guidance on workers' housing.²

Malaysia introduced new regulations on workers' housing and amenities at the end of August 2020. Since the COVID-19 outbreak, Singapore is also putting in place a program to build additional dormitories with higher standards over the coming months and years. While these initiatives indicate progress, it would be helpful to study the laws and practices in the Asia and the Pacific region on employerprovided accommodation and undertake stakeholder consultations to develop regional guidelines.

It is reported by Singapore's Ministry of Manpower (MOM) that the Quick Build Dormitories in Singapore that will be piloted will have living space per resident of at least 6 square meters (m²) (not including shared facilities), up from at least 4.5 m² (including shared facilities) currently. There will be one toilet, one bathroom, and one sink to every five beds, an improvement from every 15 beds currently. There will also be more sick bay beds (email correspondence between Nilim Baruah (author), ILO, and MOM on 24 June 2020; MOM 2020). All these initiatives indicate laudable progress more in line with Singapore's status as a high income country (ILO 2020a). They will also lead to more integration closer to residential areas as the MOM has reported.

The president of the Dormitory Association of Singapore expects building costs to double, along with a 50% increase in operating costs. These costs should be shared by employers, dormitory operators, and the government, he noted (Ng and Seow 2020).

In Malaysia under the new regulations, the floor area for the sleeping area has been set at not less than 3.6 m² for each employee, which is smaller and comparable to those of seafarers on board vessels. Sanitary conveniences (in Malaysia—one bathroom and one toilet for 15 persons) do not appear adequate. Thailand does not seem to have any regulations and this is a gap that should be addressed.

- separate accommodation of the sexes;
- adequate supply of safe water;
- adequate drainage and sanitary conveniences;
- adequate ventilation and, where appropriate, heating; and

² The recommendation offers housing standards in relation to: the minimum space per person or family; supply of safe water; adequate sewage and garbage disposal systems; appropriate protection against heat, cold, damp, noise, fire, and disease-carrying animals and insects; adequate sanitary and washing facilities, ventilation, cooking and storage facilities and natural and artificial lighting; a minimum degree of privacy both as between individual persons within the household and for the members of the household against undue disturbance by external factors; and suitable separation of rooms devoted to living purposes from quarters for animals. Where housing accommodation for workers is collective, the competent authority should establish housing standards providing, as a minimum, for:

[•] a separate bed for each worker;

[•] common dining rooms, canteens, rest and recreation rooms and health facilities, where not otherwise available in the community.

Along with the development of standards and guidelines, the enforcement of regulations is critical. There should be sufficient deterrence for employers and dormitory operators to comply with the laws. Further, the dormitories should not be deemed public spaces in the law (e.g., as in Singapore) so the personal space of workers is not infringed (HOME 2015). For building back better, it is necessary to set up or strengthen safety, health and hygiene, comfort and privacy standards for employer provided housing, and strictly enforce them.

It is important to also regulate minimum standards for living conditions for live-in domestic workers (ILO 2020a). The ILO Domestic Workers' Convention, 2011 (No. 189) requires that live-in domestic workers need to have decent living conditions that respect their privacy. The Domestic Workers Recommendation, 2011 (No. 201) further states that accommodation provided to domestic workers should include a separate, private room that is suitably furnished, adequately ventilated, and equipped with a lock, the key to which should be provided to the domestic worker.

Extend migrant workers' social protection

ILO standards call for the equal treatment of nationals and migrant workers in social protection. Social protection is itself a key element in crisis preparedness and response. Globally, 55% of the world's population remains unprotected by social insurance schemes, ultimately leaving a gap in protection and risking further marginalization and vulnerability during crises (ILO 2020e). In many countries in Asia and in the Middle East , the COVID-19 pandemic has in particular exposed the challenges faced by migrant workers, as they are often left out of relief and social protection measures. The extension of migrant workers' social protection is a key area in building back better.

According to an ILO study in 2018, Thailand and the Lao People's Democratic Republic are the only countries in ASEAN where non-nationals are covered under unemployment insurance (Marius 2018). The COVID-19 pandemic has highlighted the importance of extending unemployment insurance to cover migrant workers, especially in times of crises or emergency.

Going forward, a combination of unilateral, bilateral, and multilateral interventions are needed to enhance migrant workers' access to social security (ILO 2020a). There is also a need to better regulate the superimposition of immigration law on social security entitlements to ensure that migrant workers have adequate time to claim and finalize social security benefit payments upon termination of employment (Marius 2018).

2.5 Enhancing the Effectiveness of Legal Pathways and Ensuring Protection of all Migrant Workers

During the pandemic undocumented workers have been subject to detention in unsafe conditions (ILO 2020a). As noted in a statement put out by the United Nations in Malaysia statement on 2 May 2020, the fear of arrest and detention may push these vulnerable population groups further into hiding and prevent them from seeking treatment, with negative consequences for their own health and creating further risks to the spreading of COVID-19 to others (UN in Malaysia 2020). Therefore during a health crisis it is essential to de-link the fear of sanctions for immigration violations and health concerns of migrants. At the same time, various measures need to be taken to reduce irregular migration in the region, including making the formal channels for labor migration work better. A recent ILO survey

among migrant workers from Cambodia, the Lao People's Democratic Republic, and Myanmar working in Thailand found that only 38% entered through the regular channels (ILO 2020f). This is explained partly by the fact that the regular mechanisms are perceived as complicated, lengthy, and expensive compared to the option of entering Thailand irregularly through porous borders. While paying less in recruitment costs and fees, irregular migrant workers make trade-offs as they are more likely to earn less, have poorer employment conditions, and are more at risk of violations of fundamental principles and rights at work. Irregular workers also worked more days per week and are less likely to have a day of rest.

In line with Objective 5 of the Global Compact for Migration, "Enhance availability and flexibility of pathways for regular migration", building back better calls for increasing the effectiveness of legal pathways—so that they can act as a disincentive for irregular migration. Labor mobility may be facilitated in line with labor market requirements, and the formal channels need to be streamlined to reduce time and cost.

Without impinging on the rights of states to control their borders, the human and labor rights of all migrant workers, including those of undocumented workers, should also be upheld. The ILO Convention No. 143, while calling for all necessary and appropriate measures to suppress clandestine movements of migrants for employment and illegal employment of migrants, including against the concerned organizers and employers, grants all migrant workers the right to payment of remuneration, social security, and benefits arising out of past employment and to seek redress for wage claims.

Favor access to upskilling and re-skilling

Movement restrictions and social distancing during the COVID-19 pandemic has changed the way we work and learn in an unprecedented manner. Skill sets for jobs have changed, especially as more goods and services are provided and purchased online. The "new normal" after the COVID-19 pandemic is unlikely to look like the "old normal", and the trends toward technological change highlighted above will continue to affect migrant workers.

In this digital transformation it is essential to ensure that migrant workers have access to upskilling and re-skilling to be able to operate in the "new normal" workplace (ILO 2020a). More efforts are needed to promote women and men migrant workers' access to technology and build their capacity to meaningfully use technology and to contribute to the digital economy. The recent recommendations of the 12th ASEAN Forum on Migrant Labour (Box 2.6) provided some guidance. Implementing these recommendations are more important now than ever before. In addition, there is a need to put systems in place to recognize and accredit the skills of returning migrants.

Box 2.6: ASEAN Forum on Migrant Labour—Recommendations on Migrant Workers and the Future of Work

The 12th ASEAN Forum on Migrant Labour in 2019 recommended supporting the employability of migrant workers in the future of work through the promotion of access of migrant workers to skilling, re-skilling, and upskilling opportunities on digital skills and soft skills. Vocational training programs should also be responsive to new skills requirements (12th ASEAN Forum on Migrant Labour, Recommendation 13).

2.6 Conclusions

This chapter has presented a number of scenarios and discussed the potential impact of these scenarios. Great uncertainty about the actual impact of scenarios remains.

It is possible that the economic impact of the COVID-19 pandemic in Asia is less than in the rest of the world; indeed, as 2021 begins, most Asian countries have seen less severe cumulative lockdowns than most non-Asian OECD countries. There could be an epoch of openness in the region while restrictions persist elsewhere. Or, there could be a hardening of policy and public opinion about the role of migration, with more concerns about mobility and greater emphasis on automation, telework, and offshoring, for example. Repeated waves of infection in the upcoming years, on the other hand, could suppress recovery and growth, with slack demand undercutting migration regardless of policy positions and concerns over health-related vulnerability.

Migrant workers in Asia have been disproportionately affected by the pandemic and are among the most vulnerable groups. These vulnerabilities are a reflection of some structural flaws in the labor migration systems in a number of countries. In order to build back better, fair wages and decent working and living conditions for migrant workers should be key considerations in countries in Asia and the Middle East when they admit migrants. The experience of the pandemic has shown how vulnerabilities of migrant workers can cause health vulnerabilities for whole populations; while substandard or illegal working and living conditions may be hidden from public view and concern, the associated health consequences have been impossible to hide. The impact of the pandemic has come in addition to the structural changes underway in the region, especially the demographic shifts and the evolving nature of work. One constant is the need to adapt policies to address the new realities and safeguard against shocks which, whether predictable or not, can have an enormous impact on mobility. This is one lesson of the pandemic.

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CHAPTER 3

Migtech: How Technology is Reshaping Labor Mobility and the Landscape of International Migration

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3.1 Introduction and Definition

3.1.1 Technology and the World of Work

The rise of the internet and the rapid development and application of digital technologies have not only contributed to the changing nature of work but also to transforming the nature and functions of the labor market. Information and communication technology (ICT) provides backbone infrastructure and digitalized labor and employment-related services.

Alongside the digital transformation in the labor market is the growing role of technology in creating an enabling landscape for international migration. The technological processes are reshaping the patterns, processes, and nature of mobility and migration. Through greater access to information and support services, technological advances and rapid diffusion of ICT are arguably improving the efficiency and transparency of the migration process. Notwithstanding these positive developments, labor mobility and migration in the digital age is not without its risks and challenges—including the heterogeneous impacts of and uneven distribution of gains from technology across migrant groups, skills, and sectors.

This chapter evaluates the role of technology in facilitating labor mobility and in changing the landscape of international migration. The first subsection provides a working definition and scope of technology that assists and empowers migrants, or "migtech" for short. The second section presents the trends and patterns in migrant access to technology, and reviews and maps the different types of technology that are used in the migration cycle, as well as the impacts based on existing evidence to date. Due to the dearth of available data and the relative infancy of the study of migtech, this review will primarily rely on online and literature reviews—including reports and surveys—with greater focus on available technologies in the Asian region. Moreover, this section discusses the roles of migtech amid the spread of the novel coronavirus disease (COVID-19). The chapter concludes with a summary of international evidence and other literature; opportunities, risks and challenges; and policy recommendations on how migtech can be further leveraged to effectively manage migration.

3.1.2 Migtech—A Working Definition

The foremost step in this evaluation is operationally defining migtech. There is no formal and universal definition date. However, following existing efforts and studies (e.g., by the United Nations University Institute on Computing and Society, the ICT4D Collective, the International Labour Organization, Butty 2019), migtech is broadly defined in this chapter as technology that assists and empowers

migrants. It includes technology that facilitates labor mobility and adds accuracy, safety, efficiency, and transparency to the process. Based on the available evidence on the type of technologies used thus far in the migration process, the scope of migtech reviewed in this chapter broadly covers information and communication technology and business, human resources, education, and civic technologies. Key applications of these technologies encompass those providing information and support services to migrant workers in their recruitment and job placement, integration in their destination communities, and return and reintegration to their origin communities. The application and potential benefits of migtech also extend through fostering decent work and better working conditions, protecting migrant rights, and facilitating skills acquisition, among others.

3.2 Mapping Migtech through the Migration Cycle

3.2.1 Migrant Access to Technology

General trends and patterns in access to and use of technology

The spread of digital technologies has occurred at an unprecedented speed and scale. It is estimated that more than half (53.6% in 2019) of the global population are using the internet, representing over a sixfold increase from the corresponding figure nearly 20 years ago (8% in 2001). Over the same period, fixed broadband subscriptions grew more than 20 times (from 0.6 to 14.9 per 100 people), while mobile-cellular subscriptions increased nearly sevenfold (from 15.5 to 108 per 100 people). In fact, in developing countries, more households own a mobile phone than have access to electricity and clean water (World Bank 2016). Latest estimates further reveal that 67% (or 5.19 billion) of the world's population are (unique) mobile phone users, while 59% (or 4.54 billion) are internet users (of which 4.18 billion access the internet through mobile phones) and 49% (or 3.8 billion) are active social media users (Digital 2020). Among regions, Asia and the Pacific has made remarkable progress, particularly in terms of internet and mobile penetration (Figure 3.1).

Data also show that most (73%) mobile internet connections are associated with smartphones, with the rest associated with feature phones and mobile devices associated with routers, tablets, and mobile personal computers. Chat applications (apps) and social networking apps are most widely used; other commonly used apps include those related to e-commerce, entertainment, travel, music, games, and banking (Digital 2020).

Notwithstanding the significant progress in access to and adoption of technology, digital divide persists. To date, roughly 40% of the global population remain unconnected to the internet (Digital 2020). While the relative growth of internet users and mobile connectivity in recent years has been highest in developing economies, ICT developments and uptake of technology in less developed regions are still not keeping pace with their more advanced counterparts, primarily due to gaps in infrastructure, affordability, consumer readiness, and content and services.¹ Similarly, women, older adults, low-income households, and those with lower levels of educational attainment remain at a disadvantage.

¹ The GSM Association particularly cites these four factors as key enablers of mobile connectivity. Infrastructure includes the dimensions of network coverage, network performance, other enabling infrastructure, and spectrum. Affordability covers the dimensions of mobile tariffs, handset prices, inequality, and taxation. Consumer readiness involves basic skills, gender equality, and mobile ownership. Content and services encompasses local relevance, availability, and online security.





* estimate; CIS = Commonwealth Independent States, ICT = information and communication technology.

Note: For fixed-broadband subscriptions, the earliest year for which aggregate data are available for all regions is 2005.

Source: International Telecommunication Union. World Telecommunication /ICT Indicators database (accessed 16 November 2020).

Trends and patterns in migrant access to and use of technology

Migrant access to and use of technology is no different from the general patterns discussed above. Data that indicate the degree of migrant access to technology is scant but some information is available. For example, in a survey among migrant workers in Malaysia from selected Southeast and South Asian countries,² 92% own a mobile phone, of which three in five own a smartphone. Voice and short messaging services (SMS) predominate the main activity in the use of mobile phones. Moreover, most mobile phone owners use chat apps and social media networking sites, primarily for staying connected to families (Nielsen Malaysia Migrant Syndicated Study, 2015 as cited by Elahi and Nguyen 2016). This is parallel to the findings of other studies among women migrant workers in the Association of Southeast Asian Nations (ASEAN) countries, suggesting that mobile phones are primarily used for social connectivity with family, friends, and fellow migrants (Anderson 2016, ILO 2019a). There are a variety of ways in which the uptake and use of technology facilitates migration (summarized in Box 3.1).

Delving further into how and which type of technology is used by migrants, migtech broadly includes digital communication tools; social media platforms; purpose-specific mobile applications;

² Including Bangladesh, Indonesia, Myanmar, Nepal, and the Philippines, with the survey sample covering over 1,000 migrant workers.

Box 3.1: Ways Technology Facilitates Migration

- Information on the quality of life and economic opportunities that are available elsewhere, which shapes aspirations, decisions to migrate and migration plans, including destination country preferences
- Essential planning and travel information on the journey itself, including on transport options (official and informal such as people smugglers), transport costs, translation, and on safety, including avoiding difficult borders
- Access to migrants' own or family financial resources for the journey, while in transit and upon arrival at the destination, via mobile money platforms
- Information to facilitate re-settling in the destination country after arrival by accessing migrant networks and local information in the destination country
- Continuing linkages with families and networks in their country of origin through messaging, voice call and social network apps available on mobile phones

Source: Gelb and Krishnan (2018), p.9.

and education, human resource, business, and civic technologies. Migtech can be further classified into the following by purpose: (i) digital tools and platforms that facilitate information gathering and dissemination; (ii) digital solutions for networking and solidarity; (iii) platforms that provide certification and facilitate recruitment and/or job matching and skills development; (iv) platforms that enable workers to provide feedback and promote labor protection and compliance; (v) digital solutions for remittances and financial management; and (vi) digital platforms that facilitate access to welfare services.

Existing evidence suggests that a mix of technologies play both a complementary and instrumental role in providing information to prospective and current migrants. For instance, digital communication tools (e.g., messaging apps), social media and other mobile apps (e.g., transportation and translation apps, digital maps) are used to access information throughout the migration process (including job vacancies and conditions in host countries), in addition to building and maintaining social networks both at home and destination countries (Anderson 2016, Bajracharya and Sijapati 2012, ILO 2019a). The role of social media in migration is particularly increasingly becoming salient in recent years, with research showing that in some cases, migrants tend to put less attention on institutional websites, news portals, and media outlets unless links reach them via social media platforms such as Facebook (UNHCR 2017). The trusted and personal networks developed in digital communication through mobile phones and social media platforms also contribute to migrants' greater tendency to seek information from each other rather than from official sources (Anderson 2016). On a different note, some cases show that social media platforms, especially Facebook, are being used to recruit migrant workers, particularly domestic workers (Bajracharya and Sijapati 2012), or match potential employers and workers.

Digital connectivity—or the consolidation of mobile phones, the internet, and social media—is considered a game changer for migration (European Political Strategy Centre 2017). The low cost of handsets and internet access, along with the proliferation of mobile networks and phone apps, have enabled various population groups, including migrants and others from low-income backgrounds, to use technology (Gelb and Krishnan 2018).

On the whole, technology and digitization have immense potential to positively influence and shape every aspect of migration. They provide access to information during premigration, journeys, and in destination countries; facilitate remittances; and help migrants stay connected to families (Gelb and Krishnan 2018). For the management of migration and services, digitization can cultivate efficiency, transparency, accountability, and cost-effective solutions to some migration challenges (ADB 2020a). Building on the above literature, the following discussion maps out the key applications and potential benefits of technology and digitization throughout the migration cycle.
3.2.2 Migtech throughout the Migration Cycle

Migration is an ongoing condition that occurs in various stages (predeparture, post-arrival, and return and reintegration) (Figure 3.2). The three broad stages of the migration cycle are interlinked, and the application of technology is crosscutting and relevant to different aspects of migration management and migrant empowerment. It is thus important to address the relevant issues at different stages and identify how technology and digitization facilitate migration activities at each stage.



Migtech in predeparture stage

The needs of migrants at the predeparture stage—including information on migration procedures and employment opportunities and conditions at destination countries, along with assistance in preemployment and predeparture logistics—are presented in Box 3.2. At this stage, migtech platforms and services assist prospective migrants through the processes of migration preparation and planning, skilling, employment, financial literacy, travel, and access to social and welfare services.

Box 3.2: Needs of Migrants at the Predeparture Stage

- Knowledge of costs, benefits, risks associated with migration
- Information on job availability, conditions of contract and placement, financial resources to meet migration expenses, assistance in making domestic arrangements during their absence and preparing for work overseas, including psychological preparedness for safe migration
- Standards and certification of required skills
- Knowledge on culture, expected attitudes, and behavior at destination
- Upskilling and/or re-skilling
- Job matching
- Visa processing

Sources: Authors, IOM (2005).

Predeparture migtech digital tools and platforms vary in interactivity and can be classified into five subgroups that: (i) facilitate information gathering; (ii) support information dissemination (including awareness raising, predeparture orientation, etc.); (iii) provide training and certification; (iv) facilitate recruitment and/or job matching; and (v) enable workers to provide feedback (rate and review). Illustrative examples of migtech platforms relevant in the predeparture stage with references to specific technologies are described in more detail in Table 3.2.

Digital tools and platforms that facilitate **information gathering**—such as digital communication tools (e.g., WhatsApp, Viber, Line, WeChat, Messenger, Skype) and social media platforms (e.g., Facebook, Instagram, Twitter, Snapchat, Telegram, TikTok)—are commonly and increasingly used by many organizations across sectors that provide direct as well as indirect services to migrants. While these technologies are not targeting migrants per se, these tools are essential elements of migtech by connecting migrants to relevant organizations, helping them access information on migration and support services before and during their journey, and facilitating peer-to-peer networking and organization.

Messaging apps and social media platforms are also increasingly used for **information dissemination**. For instance, now more than ever, many government agencies are utilizing these to circulate information on travel and migration and to reach out to prospective and current migrants. The use of digital communication tools and social media platforms is regarded as less expensive compared to purpose-built platforms and arguably more effective given the existing familiarity and ease of use and navigation these tools have to offer (ILO 2019b). Some specialized apps are also in place to support information dissemination, primarily for awareness raising and assisting in predeparture orientation (e.g., technologies 1–3 in Table 3.1). Similarly, digital communication tools such as Skype are useful for predeparture orientation as users can exchange texts, files and images, and conduct conference calls. These can be efficiently used to arrange distance communication between potential migrants and employers in destination countries.

A lack of **recognition and accreditation** of qualifications and skills is among the key challenges migrant workers face in accessing decent jobs. Web-based and mobile-assisted learning and assessment platforms (e.g., technologies 4–7)—including language learning apps (e.g., technologies 8–9)—help migrant workers improve and/or gain a set of skills, obtain certification and accreditation of such qualifications and skills, and thereby increase their chances and options for employment.

The development and use of professional networking and online job board sites (e.g., LinkedIn, Indeed) as well as **digital management systems** and databases in managing migration are gaining

traction. In particular, the latter is used to facilitate **recruitment and administrative processes for overseas placement**, as well as for managing migrants' personal profiles and access to support services throughout the migration cycle (e.g., technologies 10–14). A number of these management systems are also associated with online services, such as online predeparture orientation, skills training, or legal counseling. Moreover, given their proven effectiveness in keeping a "digital trail" (a record of agreements and/or arrangements)—thereby also increasing transparency and accountability in migration procedures and processes—these platforms can be particularly useful in addressing issues, such as in efficient matching between potential employers and migrant workers; monitoring recruitment agencies; promoting regular channels for migration and mobility; and preventing contract substitution, exploitation, and human trafficking. Additionally, the maintenance of active social network spaces for recruitment agents to ensure that migrant workers can directly and publicly connect with agents regarding requests for assistance, issues, or complaints proves useful in improving accountability (ILO 2019b; Farbenblum, Berg, and Kintominas 2018).

Feedback and/or rating and review platforms (e.g., technologies 15–16) enable migrant workers to share information with each other about their experiences with specific recruiters, employers, and other migration intermediaries. By gaining first-hand information from other migrant workers, these platforms help prospective workers avoid unscrupulous employers or recruiters, seek out those with a reputation for fair treatment, and make more informed decisions. Similarly, these platforms can help circumvent information asymmetry that hinders migrants from obtaining related information through other channels (Farbenblum, Berg, and Kintominas 2018).³

	Tool	Description
Digita	l tools and/or platforms that facilitate information disseminat	tion ¹
1	Smart Domestic Workers	Smart Domestic Workers app was developed by the Foundation for Labour and Employment Promotion in Thailand to provide knowledge to foreign domestic workers, including information on work permits, domestic workers' rights, and other employment issues through animations and other simple formats. Information on the app is available in Thai, Burmese, and English.

Table 3.1: Examples of Migtech at the Predeparture Stage

³ For one, information on noncompliant recruiters and employers may be generally unavailable, difficult to access, or not adequately detailed to meet migrants' decision-making needs. Information disseminated by governments may also often be limited to basic corporate compliance, and data published may be rarely updated, making it less reliable. Additionally, migrant workers may be segregated from each other or have rare opportunities to share information with other prospective or current workers across national borders. Even within the same home country, current migrant workers may lack solid channels to share information to prospective migrants workers. These barriers may be exacerbated by the lack or absence of unionization among migrant workers (Farbenblum, Berg, and Kintominas 2018).

MIGTECH: HOW TECHNOLOGY IS RESHAPING LABOR MOBILITY AND THE LANDSCAPE OF INTERNATIONAL MIGRATION

Table 3.1 continued



LABOR MIGRATION IN ASIA: IMPACTS OF THE COVID-19 CRISIS AND THE POST-PANDEMIC FUTURE

Table 3.1 continued

	Tool	Description
5	TESDA Online Program	The Philippines' TESDA Online Program (TOP) is an open educational resource that delivers technical education and skills development services to a wide range of users and learners—including current and aspiring overseas Filipino workers—at low to no cost. Courses offered include tourism, housekeeping, and culinary skills; electronics, automotive, and heating ventilation; agriculture; human health and health care; and ICT, among others.
6	Accredible	Accredible, a badge and certificate service startup, enables organizations to award their students with accredited proof of acquired skills, individuals to prove their credibility, and employers to identify ideal job candidates.
7	Mein Weg nach Deutschland	Mein Weg nach Deutschland by the Goethe Institut is a web platform on language learning and cultural orientation in Germany. The website is aimed at improving and consolidating the language and orientation skills of migrants by providing language learning exercises; relevant information on school and education, work life, family, and everyday life in Germany in 30 different languages; and information and concrete pointers regarding migration counseling centers.
8	Duolingo, Memrise, Rosetta Stone, Busuu	Language learning apps (e.g., Rosetta Stone, Duolingo, Busuu, Memrise) help migrants learn their host country's language and improve their command of it. The nature of online and/or mobile-assisted learning apps particularly help migrants ease the challenges in accessing language learning and/or training, such as cost, compatibility with work shifts and changing schedules, and transportation costs. Moreover, these tools provide opportunities for personalization and flexibility, including work-specific language, different levels of language training, and diagnostic tools that focus on the individual learner's strengths and weaknesses.
9	Translators without Borders TRANSLATORS WITHOUT BORDERS	Translators without Borders (TWB), a nonprofit organization, provides freely downloadable multilingual glossary apps that can be accessed online and offline. The language and communication solutions provided by the TWB are used in crisis response, development, capacity building, and advocacy. In partnership with other organizations, the TWB's work focuses on providing translations for nonprofit organizations in the areas of crisis relief, health and education; building capacity by training new translators in under-resourced languages; and raising awareness on the cruciality of language in humanitarian work. More recently, the TWB joined the Translation Initiative for COVID-19 (TICO-19), to make COVID-19 information available in as many languages as possible. The language and communication tools offered by the TWB are relevant for both prospective and current migrants.

Table 3.1 continued

	Tool	Description	
Platforms that facilitate recruitment and/or job matching			
10	Online system of the Ministry of Labor, Invalids and Social Affairs in Viet Nam	The online system of the Ministry of Labor, Invalids and Social Affairs in Viet Nam serves as a digital storage of labor supply contracts of migrant workers.	
11	Philippine Overseas Employment Agency Online Services Portal	The website and Facebook page of the Philippine Overseas Employment Agency provides information on overseas employment, including job opportunities abroad, lists and reviews of licensed recruitment agencies, and rules and regulations governing recruitment and employment of overseas workers. Other online services hosted in the digital platform of the agency include pre-employment orientation seminars, registration and verification of recruitment agencies, registration of overseas foreign workers (OFWs), and adjudication cases monitor. The platform provides information in real time and is regularly updated.	
12	Digital database of the Ministry of Labor and Social Welfare, Lao People's Democratic Republic	A digital database by the Lao People's Democratic Republic's Ministry of Labor and Social Welfare stores information and data about outbound Lao migrant workers. The database is also used by the Ministry's Department of Skills Development and Employment, employment service centers, and recruitment agencies to help issue work permit cards quickly and transparently, as well as track recruitment agencies and link workers to particular agencies.	
13	Malaysia's Foreign Workers Centralized Management System	Malaysia's Foreign Workers Centralized Management System (FWCMS) is an online integrated centralized system developed to recruit, manage, and monitor Malaysian migrant workers. It links governments in origin and destination countries, recruiters, employers, and medical centers.	
14	eMigrate of India's Ministry of External Affairs	eMigrate of India's Ministry of External Affairs is a digital platform managing the deployment of migrant workers. It is a comprehensive online database of migrants, recruiting agents, foreign employers, project exporters, and internal stakeholders. The system allows registration, authentication, and verification of credentials of all the stakeholders. Other services hosted in the system include job offer reviews, passport checks, employment contract reviews, visa issuance, predeparture orientation training, and grievance redressal mechanisms. eMigrate has a mobile app (primarily used to track application status and verify migration clearance status) and an eLocker (which serves as a digital store of relevant documents, including employment contracts, visas, passports, clearance letters, and migrant ID cards). ⁴	

Table 3.1 continued

	Tool	Description	
Platfor	Platforms that enable workers to provide feedback (rate and review)		
15	<section-header><section-header></section-header></section-header>	Developed by the International Trade Union Confederation with support from the International Labor Organization' Fair Recruitment Initiative, Recruitment Advisor is a web platform aimed at helping to protect migrant workers from abusive employment practices by providing peer-to-peer reviews about recruitment agencies in their country of origin and destination. Additionally, the platform provides access to information about workers' rights when searching for jobs overseas. The list of registered recruitment agencies recorded in the platform is provided by participating governments, who also benefit from the process through the feedback given regarding the practices of licensed recruitment agencies and which, in turn, can also be used to complement more traditional monitoring systems. ⁵	
16	Pantau PJTKI	Pantau PJTKI—an initiative of the Migrant Workers Resource Center in Indonesia and managed by the Institute for Education Development, Social, Religious, and Cultural Studies—is a platform for Indonesian migrant workers, particularly women domestic workers, to rate recruitment agencies in the country. The platform is geared toward facilitating access to user-generated reviews about the quality of services offered by agencies, incentivizing recruiters to improve their performance, and enabling civil society to engage in more informed advocacy. The platform enables both online reviews by migrant workers themselves and offline reviews through corresponding efforts by partner organizations that visit migrant workers in their communities and countries of destination. ⁶	

- ¹ Another example is MigRu, an Android-based mobile application for migrants travelling to the Russian Federation, which provides migrants with information on entry and migration rules, information on language tests required to get a work permit (known as patent), relevant links, and migration-related news. Another useful option provided by this application is the opportunity to check the migrant blacklist and ensure that migrants have the right to cross the border of the Russian Federation. This is done by redirecting the user to the corresponding webpage of the Federal Migration Service of the Russian Federation (Brestovitsky 2016).
- ² The Issara Institute's Golden Dreams app also enables migrants to share complaints and/or concerns and seek immediate assistance through free phone helpline services or private messaging. Overall, Issara utilizes worker voice technology, data analytics, and information obtained through field research and its inclusive labor monitoring system (which connects worker voice channels to remediation and remedy for workers through employers and other channels) to inform global businesses and suppliers about labor and recruitment conditions and needed systems improvements across their supply chains or product lines. The Issara Institute also publishes aggregate data analytics and other research to inform global and industry best practice and learning.
- ³ Written before the Myanmar coup d'état on 1 February 2021.
- ⁴ eMigrate's database also auto detects foreign employers with complaint cases pending against them and alerts officials at the time of clearances of new recruitment for these foreign employers, who could be placed on a watch-list and/or black-list based on past complaints. The eMigrate system is also integrated with insurance agencies providing the *Pravasi Bharatiya Bima Yojana* (India's mandatory insurance scheme to safeguard the interests of Indian emigrant workers), and verifies the authenticity of the insurance policy details.
- ⁵ To date, Recruitment Advisor has coordination teams in Indonesia, Malaysia, Nepal, and the Philippines, and has recorded recruitment agencies in various economies, including Hong Kong, China; Indonesia; Malaysia; Nepal; the Philippines; Qatar; Saudi Arabia; and Singapore.
- ⁶ The platform also provides an avenue for recruitment agencies to engage with the platform by updating basic information about their agency and status of their license, uploading registration certificates, or responding to worker complaints. The platform has proved useful for government agencies, especially with regard to assisting human trafficking investigations, although reckoned to have more impact if linked to government-level interventions such as licensing regimes.

Sources: Butty (2019); Chindea (2015); Dulay (2018); Farbenblum, Berg, and Kintominas (2018); ILO (2018, 2019a, 2019b); respective websites and/or reports of and correspondence with managing and/or administering institutions and developers.

Migtech in post-arrival stage

Migrant workers often lack reliable information about conditions in their destination country and at their workplace. Many workers may also be unfamiliar with their rights, have limited options when unfavorable circumstances arise, or are unacquainted with complaints and/or claims processes, and with relevant institutions at home or abroad. Box 3.3 further presents the needs of migrants at the post-arrival stage.

Box 3.3: Needs of Migrants at Post-Arrival Stage

- Occupational safety and health at enterprise and/or unit level, rights at work, and support services (psychosocial, legal), in the event of problems in destination countries
- Information and support in remitting income and maintaining communications with families at home
- Visa renewal, language lessons, cultural orientation at destination, daily guides, connecting to local communities, access to support group, and hometown associations

Sources: Authors, IOM (2005).

Migtech platforms can foster social networks at destination and provide migrant workers with information about their rights, legal processes, opportunities, and country-specific guides with tailored and responsive information as they integrate into their host societies. Additionally, migtech platforms and services can foster decent and productive working conditions, address remittance costs and financial exclusion, and facilitate access to redress mechanisms and other support services (ADB 2020b).

At the post-arrival stage, migtech platforms and services include digital solutions for (i) networking and solidarity, (ii) remittances and financial management, (iii) access to services and information at destination, and (iv) labor protection and compliance.

Digital tools and platforms for networking and solidarity—including digital communication tools; social media; and other platforms that promote peer-to-peer connections, collective organizing among workers, and diaspora engagement (e.g., technology 17 in Table 3.2)—serve as valuable tools for migrants to maintain and/or create social networks, receive and share information, and assist in their socioeconomic and cultural integration. These tools can also be useful channels to raise awareness and avoid violence or exploitation, as well as provide reporting mechanisms and/or outlets for effective communication with governments and service providers.

Digital solutions for remittances and financial management are progressively becoming valuable in facilitating remittance flows, addressing remittance costs, and promoting financial inclusion. New digital solutions for remittance transfers (e.g., technology 18) raise transparency and competition among money transfer operators, pushing remittance costs down. Innovative digital tools such as digital wallets and mobile payments (e.g., technology 19) also enable financial inclusion of those without access to formal banking (ILO 2019b). Other ICT-based financial solutions—including online tools to calculate information such as loan repayments, interest accumulation, and foreign exchange (e.g., technology 20) or compare remittance prices (e.g., technology 21), as well as digital platforms that provide information on managing personal finance (e.g., technology 22)—also help migrants improve their financial and remittance literacy.

Migrants, especially those in precarious and vulnerable working conditions, are often unable to seek support services or access remedies. For instance, migrants may be unable to meet evidentiary requirements to succeed in wage claims or recover funds paid to fraudulent recruiters or exploitative employers due to lack of records of hours worked or wages received, or they possess fraudulent or forged documents to begin with. Others may face difficulties in applying appropriate wage rates to calculate the quantum of underpayment. These challenges may be exacerbated by costly and/or inadequate legal assistance. Migrants may also lack information about how to access legal and paralegal services or remedial processes. For others, helpline offices and remedial forums may be inaccessible, either physically from workers' homes or worksites or because their employers forbid them from accessing such services. Digital solutions that facilitate access to services and information at destination can help foster migrants' welfare and protection primarily via documentation and evidence-gathering, referral to legal services and other support, wage calculation, and facilitation of local and transnational investigation and litigation, among others (ADB 2020b; Farbenblum, Berg, and Kintominas 2018). Key examples of such solutions include platforms that provide migrants with responsive and tailored information (e.g., technology 23); helpline apps (e.g., technology 24); and databases that monitor and manage migrant welfare (including complaints) and facilitate workers' access to justice (e.g., technologies 25-28).4

Failures within global supply chains have contributed to deficits in decent work, exclusion from protection (especially those in the lower segments of the chain), and undermining of workers' rights. Informality, nonstandard forms of employment, and use of intermediaries are also not uncommon. Migrant workers in many global supply chains often face various forms of discrimination and limited or no legal protection (ILO 2016). Digital solutions for labor protection and compliance-such as digital worker reporting platforms (sometimes referred to as "worker voice" tools); digital aids in labor inspection; and other tools that enable employers to engage with workers in their supply chains (e.g., technologies 29-37)—can help foster more ethical and fair recruitment and labor practices, as well as prevent forced labor and human trafficking.⁵ While these tools are still in the development, pilot, or early stages-and are marketed to businesses-the potential uses of these tools extend to government enforcement agencies, unions, and (in some context) consumers. For businesses, the adoption of these tools are motivated with the aim of increasing worker productivity, reducing strikes and absenteeism, and worker turnover. For trade unions and other worker organizations, these can be used to inform collective bargaining efforts and demand remediation of reported violations. For law enforcement agencies, these may be used for intelligence-gathering purposes to address criminal forced labor and trafficking, although this may be hampered by certain constraints such as anonymity of data or chain of custody. For consumers, these may help inform purchasing decisions, favoring firms that address worker feedback at scale within their supply chains. Platforms that enable workers to rate and review recruiters, employers, and other intermediaries (e.g., technology 38) also prove useful. Aside from informing migrants' decisions, these platforms may provide workers with a sense of community and a conduit for expressing their views. Migrant workers reporting misconduct may also gain individual benefits from platform hosts, including referrals to support services to lodge complaints or claims. The benefits of these platforms may also extend to alerting advocates, employers, or businesses at the head

⁴ Within the area of support services, sharing economy platforms can also help in the integration of migrants. Airbnb, for instance, helps simplify the arrival process of migrants in a new country by facilitating access to temporary housing. Uber can help migrants better navigate their travel and commute within their destination communities.

⁵ Thus far, the most common form of these worker engagement tools conduct worker surveys through automated calling or texting of workers on their mobile devices and seeking their answers to a limited number of questions about working conditions. Moreover, the most common mobile technologies currently in use are interactive voice response, unstructured supplementary data services (a connection made through a mobile network operator's computers that tend to be more responsive than SMS), and SMS. Other models integrate the potential for worker engagement and surveying into a platform that is used for human resource purposes (such as employee training or the provision of employment records) that meet the needs of workers and businesses (Farbenblum, Berg, and Kintominas 2018).

of global supply chains about problematic recruiters or employers and flagging enforcement needs, or to inform campaigns and advocacy efforts (Farbenblum, Berg, and Kintominas 2018).

	ТооІ	Description	
Digital s	Digital solutions for networking and solidarity ¹		
17	OFW Watch	OFW Watch—an online platform with a mobile app and Facebook page and undertaken as a private initiative in partnership with the Philippines' Department of Labor and Employment and the Overseas Workers Welfare Administration—enables users to report their concerns and connect with peers and local support groups. The platform also hosts an information and knowledge sharing outlet; OFW work journals (to record migrants' working conditions, remotely monitored by relevant government agencies); and a resources library, where migrants can access directories of concerned government agencies, frequently asked questions, useful articles, news updates, and other services such as currency converters, simple translators, and language lessons, among others.	
Digital	solutions for remittances and financial management		
18	SaverAsia	SaverAsia is a digital service designed to help migrant workers compare the costs of sending remittances home, to manage their money, and to improve their financial literacy. The portal provides ASEAN migrant workers with information on money transfer services available in key ASEAN remittance corridors. ² The money transfer comparison function features both live data feeds and full market analysis. The portal also helps migrant workers to find financial services, such as savings, payments, credit, and insurance products suited to their needs. SaverAsia is available as a web portal and mobile app in four languages: Bahasa Indonesia, Burmese, English, and Khmer.	
19	Merchantrade Money, Valyou	Developed by Malaysia's money services business operator Merchantrade Asia, Merchantrade Money is an app and card-based digital wallet that offers a range of digital financial services, including multi-currency wallet solution, digital payments, remittance services, currency exchange, micro-insurance, mobile reloads, and card-to-card transfers, among others. The app is available in eight languages (Bahasa Indonesia, Bengali, Burmese, Chinese, English, Malay, Nepali, and Tamil). Merchantrade Asia's subordinate brands, Valyou and eRemit, also provide money transfer financial services to migrant workers via mobile apps. ³	

Table 3.2: Examples of Migtech at the Destination

continued on next page

Table 3.2 continued

	Tool	Description
20	Shuvayatra	Shuvayatra, a multi-platform initiative by the Asia Foundation, offers information and financial tools to Nepali migrant workers. It features short articles and guides to safe migration, employment, and financial literacy, as well as information specific to destination countries and resources for women migrants. The platform presents brief video explainers about financial concepts and podcast series on employment and finances produced by the project and local radio stations. The interactive components of the initiative include a question and answer area to support safe migration, as well as customized alerts and news feeds tailored to migrants' needs including tools for calculating loan repayments, interest accumulation, and foreign exchange. The app integrates multiple online and offline channels: besides its web app and Android app versions, Shuvayatra's Facebook page content is shared with local radio stations, among others. ⁴
21	Remittance Prices Worldwide	The World Bank's Remittance Prices Worldwide is a website comparing global remittance prices covering 367 country corridors including 48 remittance sending countries and 105 receiving countries.
22	PESO SENSE	The dedicated website and Facebook page of PESO SENSE or the Philippine Financial Freedom Campaign is geared to improve financial literacy among overseas Filipinos and their beneficiaries. Its online financial literacy modules covering expenditure, savings, entrepreneurship, and awareness of financial security and risks are tailored for different groups, including students, young adults, professionals, entrepreneurs, homemakers, seniors, and retirees. PESO SENSE was introduced by the Commission on Filipinos Overseas, in collaboration with the United Nations Development Programme and with support from the Western Union Foundation.

Digital solutions that facilitate access to services and information at destination





MigApp, created by the International Organization for Migration (IOM), offers information on the risks of migration, visa regulations, health guidelines, migrants' rights, and government policies, as well as access to migration services and programs. The app also offers a space for migrants to communicate and share their experiences, and serves as a platform for governments and international agencies to disseminate information to migrants. Anonymized data collected through the app is used by the IOM to analyze migration patterns and flows to feed into programming of development efforts.

MIGTECH: HOW TECHNOLOGY IS RESHAPING LABOR MOBILITY AND THE LANDSCAPE OF INTERNATIONAL MIGRATION

Table 3.2 continued

	Tool	Description
24	Electronic Case Registry and Response System of the Overseas Workers Welfare Administration, Philippines	The Electronic Case Registry and Response System (e-CARES) of the Overseas Workers Welfare Administration (OWWA) in the Philippines allows migrant workers to register complaints. It keeps a record of assistance requests, along with predeparture education programs attended and welfare assistance programs and services used. The system classifies the nature of the migrant worker's complaint, assigns the case to the specific overseas post concerned, and allows migrants to track the progress of the case online. e-CARES has an accompanying mobile app. ⁵
25	<image/>	Compass PH is a unified digital platform with the following features: SOS-EMERGENCY RESPONSE, which enables distressed OFWs, migrant workers, their families and friends needing urgent assistance to alert the Compass community; COMMUNITY, which allows users to raise questions, share ideas and opinions, help overseas Filipinos and their families better understand how to avail of public services, and learn more about the latest information on development/training programs; and SERVICES, which enables users to do transactions on remittances, loans, groceries, and tuition payment, among others. Through its networks, Compass PH is actively engaged across countries in Asia and the Pacific, the Americas, Africa, Europe, and the Middle East.
26	Consular Services Management System, India	India's Consular Services Management System (MADAD) portal is an online consular grievances management system that assists Indians working and/or studying abroad seeking consular assistance. The portal hosts grievances regarding compensation, court cases, domestic help, imprisonment abroad, transportation of mortal remains, repatriation, salary dues, tracing the whereabouts, marital disputes, birth certificates, no obligation to return to India certificates, asylum cases, worker abuse, recruiting agency problems, contract problems. The portal allows direct registration of grievances and tracking of the grievance handling process. MADAD also has an associated call center and mobile app.
27	Web-based complaints system of the Ministry of Overseas Pakistanis and Human Resource Development, Call Sarzameen	The web-based complaints system of Pakistan's Ministry of Overseas Pakistanis and Human Resource Development allows migrant workers to submit legal complaints related to recruitment or employment. Another platform, Call Sarzameen, is a mobile app that similarly serves as a complaint center for Pakistanis living abroad.

Table 3.2 continued

	Tool	Description
28	Migrants Rights Violation Reporting System/Hamsa	The Migrants Rights Violation Reporting System (MRVRS)/Hamsa—developed by the Migrant Forum in Asia (MFA) network—is an online internal database that facilitates the generation of statistics and consolidated reports about human rights and labor rights' violations against migrant workers and members of their families. It also serves as one of the platforms where a migrant worker's situation can be reported and addressed by the network. The system contains both primary data (i.e., cases submitted by MFA's partners) and secondary data (i.e., news, reports, etc.).
Digita	l solutions for labor protection and compliance	
29	Company IQ	Company IQ is a tool designed to assist businesses improve worker motivation and productivity. Its "worker voice" tools enable businesses to gather data from workers via pulse surveys, enabling workers to report issues and anonymously or publicly submit feedback on specific topics and issues. This allows businesses to respond to workers through feedback loops and aggregate and understand changes in worker perceptions and preferences. The tool also includes training for management and workers on how to use grievance and feedback channels.
30		The digital worker engagement tools developed by &Wider for its clients provide anonymous worker inputs to stakeholders—including employers, buyers, and auditors—for use in improving workplace and sourcing practices. The three key worker engagement tools are the Engage tool, which uses automated calls and mobile surveys in the worker's language and is accompanied by a client induction process and a feedback process for all stakeholders; the Enhance tool, which utilizes surveys to gather productivity and commercially relevant insights from workers; and the Enable tool, a two-way communications tool for employers, projects, and workers aimed at enhancing existing grievance mechanisms by providing an anonymous channel for incident reporting. &Wider is active across Africa, Asia, Europe, and Latin America.
31	Laborlink	ELEVATE's Laborlink is a mobile survey service that provides a bilateral communication channel for workers to share their feedback and voice, and for organizations to have clear visibility of the well-being of workers in their supply chains. Issues covered by Laborlink include forced labor and ethical treatment, health and safety, grievance mechanisms, sexual harassment, and women's empowerment. Its mobile- based worker sentiment survey also covers topics on the well-being of workers, such as work atmosphere, wages and hours, production efficiency, workforce stability, and demographics. Surveys conducted through Laborlink are deployed in the local language of the workers and are adapted to the local context. ⁶

MIGTECH: HOW TECHNOLOGY IS RESHAPING LABOR MOBILITY AND THE LANDSCAPE OF INTERNATIONAL MIGRATION

Table 3.2 continued



LABOR MIGRATION IN ASIA: IMPACTS OF THE COVID-19 CRISIS AND THE POST-PANDEMIC FUTURE

Table 3.2 continued



MIGTECH: HOW TECHNOLOGY IS RESHAPING LABOR MOBILITY AND THE LANDSCAPE OF INTERNATIONAL MIGRATION

Table 3.2 continued

	Tool	Description
	PROACTIVE & CONSISTENT SCREENING FOR SIGNS OF FORCED LABOUR	organizations, law enforcement agencies, and social auditors—to review and track data and trends over time. The tool's key objectives include advancing workers' voices; advising frontline responders on workers' responsibility; increasing privacy, inclusivity, frequency, and consistency in screening processes; and collecting data and trends on labor exploitation and human trafficking.
37	COMMUNITY RESPONSE	Designed by and for IOM field staff, the Community Response app aims to demonstrate the impact of projects to key stakeholders by capturing the feedback and testimonials of migrants, including their personal journeys, achievements, and challenges. Information accumulated from the app is integrated in the Community Response Map, an integrated dashboard where authorized staff and partners can access real- time quantitative and qualitative feedback and an overview of the feedback is publicly shared with key stakeholders.
38	Hospo Voice HOSPO VOICE YOUR HOSPITALITY UNION	Hospo Voice is a digital union for hospitality workers in Australia and part of the United Workers Union. Its Fair Plate website allows workers to review and rate their employers. Moreover, users of the platform can seek out prospective employers by rating or location and see aggregate ratings for both respect for employees and accurate remuneration. Payment of subscription- style membership fees also enables workers to access further digital tools on the Mobilise app, including PayChecker that informs workers of correct pay rates, tracking and proving hours of work (Record My Hours), recording harassment and bullying experiences (Bullying and Harassment Diary), a range of fact sheets about various issues faced by workers in the industry including template letters, and a forum for workers to ask questions about their rights at work and get advice from either trained volunteer experts or an Al powered bot.

- Other examples include IOM's Facebook chat bot, Mal Shwet Pyaung (Miss Migration), which helps process information queries from migrants; Integreat, a German app and website that provides newcomers in Germany with all the necessary local information for settling in their new host country; Jendela TKI, an app for Indonesian migrants which provides tailored migration information, including contact numbers of relevant actors; and Zaw Gyi app—developed by a membership-based organization for migrant workers from Myanmar working and residing in Thailand called Migrant Workers Rights Network—which provides useful information for migrants, including labor laws and benefits and school information for migrant children (ILO 2019a, 2019b).
- ² These corridors include Singapore to Indonesia, Myanmar, and the Philippines; Malaysia to Cambodia, Indonesia, Myanmar, and Viet Nam; and Thailand to Cambodia, the Lao People's Democratic Republic, and Myanmar. SaverAsia is developed and managed by Developing Markets Associates Pty Ltd and 360 South Pty Ltd, with support from TRIANGLE in ASEAN, a partnership between the International Labour Organization, Australia's Department of Foreign Affairs and Trade, and Global Affairs Canada. SaverAsia further provides migrant workers with information on available financial education courses and local support to help them before and during their time in host countries. In this section of the platform, organizations, such as nongovernment organizations, government service providers, and private sector organizations, can communicate their services, products, campaigns, and events to SaverAsia users.
- ³ Another example is MyCashOnline, an e-marketplace operating in Singapore and Malaysia. The platform enables migrant workers—especially the unbanked—to top up their mobile phones, pay utility bills, purchase e-commerce products, and access online services.

- ⁴ Shuvayatra engages with individual migrants via direct offline outreach in destination countries and districts of Nepal. The platform contains contact details and contextualized information about financial service providers, which helps bridge the gaps between customers and service providers.
- ⁵ The app also generates a digital OWWA OFW e-card that can be used—similarly to the physical card—to access government programs and services more easily and faster, including welfare programs, scholarship applications, training programs, and other social benefits. The e-card also functions as a valid government ID that can be used by migrant workers when dealing with various agencies involved in overseas deployment.
- ⁶ Appropriate mobile technologies employed in the surveys are selected based on local factors of development, connectivity, literacy, smartphone penetration, and factory and worker preference. Workers further gain from completing surveys, including through educational content, employer updates, rights and services announcements, training messages, and in some cases survey results. Laborlink technology is integrated in auditing, self-assessment, capacity-building, and supplier ownership processes.
- ⁷ The Ulula platform also includes the Open Worker Line App, which provides a centralized solution where workers and community members can access surveys, notifications, submit concerns, and access training resources and tools; and the Owlyfield, a solution for tablets to optimize on-the-ground third-party data collection and which is also compatible offline to mitigate risks associated with low connectivity.
- ⁸ Other functionality of the app includes the ability of users to keep a roster of their shift (including leave), enter and keep track of multiple jobs and workplaces, take photos of information that belongs to them or they are allowed to access, export data to their preferred representative, back up information to their own personal cloud storage, and record piece work arrangements (including work locations for itinerant workers).

Sources: ADB 2020a; Benton 2013, 2014; Dulay 2018; Farbenblum, Berg, and Kintominas 2018; ILO 2019a, 2019b; IOM 2018; Lokshin 2018; respective websites and/or reports of and correspondence with managing and/or administering institutions and developers.

Migtech in the return and reintegration stage

At the return and reintegration stage, migrants may face knowledge and access gaps in local information, support, and services. Technology and digitization can help address these gaps; better assist them in their economic, social, and psychosocial reintegration through counselling, training, networking or financial support; and build their capacity, both for reintegration and possible re-migration. Box 3.4 shows the needs of migrants at the return and reintegration stage.

Box 3.4: Needs of Migrants at the Return and Reintegration Stage

- Access to advice on job placement
- Development of financial stability through proper investment of their earnings
- Access to investments that would generate maximum income, and access to credit, technical services, marketing, and other facilities for migrant workers wishing to create self-employment activities
- Counseling in dealing with intra-family difficulties and with reintegration into the community

Sources: IOM (2005), authors.

Key migtech platforms and services relevant to this stage include: (i) digital platforms that assist in migrants' preparation for return; (ii) digital platforms that facilitate job matching, entrepreneurship training, and skills development; and (iii) digital platforms (including migration management systems and databases) that facilitate diaspora engagement and returnees' access to welfare services.

Digital platforms that assist in migrants' preparation for return include those that facilitate peer-topeer connection and information dissemination (e.g., technology 39 in Table 3.3)—such as information on the current socioeconomic conditions and prospects in migrants' respective countries of origin as well as ICT-based solutions (such as digital communication tools and social media) that promote dialogue between returnees and prospective returnees. These may also include e-government services for the registration of returnees and other related support services as they prepare for the journey back home (technology 40). Reintegration is also facilitated by skills recognition and development and by matching skills to labor market needs (Wickramasekara 2019). Most returning migrant workers, including and especially low-skilled workers, acquire new occupational skills while working abroad. Yet, there is rarely a streamlined system for skills certification by employers in destination countries or by origin countries upon return, or for skills development (especially on investment management, entrepreneurship, and self-employment—areas that are vital for returning migrants' reintegration). Digital platforms for skills certification and development; educational technologies for upskilling and/or re-skilling of returnee migrants; digital solutions for entrepreneurship training; and platforms that link returnees and employers are valuable in this regard (e.g., technologies 41–43).

Digital platforms including management systems and databases for migration processes and migrant welfare are also valuable. These platforms can have a key role in assisting returnees for their access to and uptake of welfare services, helping returnees rebuild their lives in their home countries, assessing the impacts and gaps of specific migration policy interventions, and effectively targeting services to returnees (e.g., technologies 44–45).

	Tool	Description
Digital p	latforms that assist in migrants' preparation for return	
39	Digital portal of the Bureau of Foreign Employment, Sri Lanka	The one-stop digital portal of Sri Lanka's Bureau of Foreign Employment provides information on services for migrants—pre, during, and after migration. At the post-migration stage, information available includes assistance and welfare services for prospective returning migrants, obtaining insurance claims, and arranging loans at low interest. ¹
40	Employment Permit System, Republic of Korea	The web-based platform of the Republic of Korea's Employment Permit System (EPS) contains information and services to support migrant workers throughout the migration cycle. Particularly under the Happy Return Program and with a goal of discouraging overstay by temporary migrant workers, a range of free training and reintegration services are offered to migrant workers. For instance, in preparation for return to their home countries, migrant workers can participate in vocational training and receive advisory services on entrepreneurship or other skill areas, access pre- return recruitment services (e.g., assistance with job applications to the Republic of Korea's companies in their home country), and receive administrative support (e.g., guidance and support for insurance benefit claims such as departure guarantee insurance and return cost insurance). Migrants can also participate in support activities sponsored through the program after their return (e.g., job fairs, virtual community networking). Through the EPS platform, the status of returned migrant workers can be checked, and more detailed information (including procedures and eligibility) on the aforementioned services can be verified. The platform can be navigated in different languages. ²

Table 3.3: Examples of Migtech at the Return and Reintegration Stage

Table 3.3 continued

	Tool	Description
Digital p	latforms that facilitate job matching, entrepreneurship trai	ning, and skills development
41	SIRA	Developed by ILO in collaboration with the Ministry of Labour and Social Affairs Ethiopia, the SIRA app links migrant returnees and public and private employers. The app aims to address the mismatch between job seekers and employers focused on low and semi-skilled occupations. In particular, the app allows employers to post vacancies and search for potential candidates, while job seekers can search or subscribe for job alerts and upload and update their information on the platform. Among others, job advertisements in the app include the hospitality, retail, manufacturing, construction, and agriculture industries. SIRA also takes into consideration the education levels of users and supports Amharic and English languages. While it works in a setting of limited internet access, the app can also be used offline to enable employers and job seekers access previously downloaded data. SIRA has a mobile and web application and call center.
42	Skilled Workers Arrival Database for Employment Support, India	India's Skilled Workers Arrival Database for Employment Support (SWADES) is a digital platform that facilitates skill mapping of overseas returning citizens. A Skill Card form is available in the web platform and information collected is shared with local and foreign companies for job matching.
43	Coursera, Future Learn, edX, Udemy, Udacity	The introduction of massive open online course learning platforms (e.g., Coursera, Future Learn, edX, Udemy, and Udacity) has been hailed with optimism for making education widely accessible via remote learning opportunities at low to no cost. Massive open online courses can help in tackling challenges related to skills and qualifications recognition by improving migrants' curriculum and set of skills and, consequently, their access to employment opportunities.
Digital p	latforms that facilitate diaspora engagement and access to	welfare services and programs
44	BaLinkBayan	BaLinkBayan is a one-stop online portal for diaspora engagement for overseas Filipinos. The BaLinkBayan program focuses on diaspora investment and entrepreneurship, diaspora philanthropy, brain gain, educational exchange, and medical mission coordination. The BaLinkBayan portal has the following features: Start A Business page that assists overseas Filipinos on entrepreneurship endeavors; Donate and Volunteer page; Access Government Online Services page; and interactive maps that contain visual guides on local products, business competitiveness, classroom shortages, poverty thresholds, and health conditions across the country.
45	Digitized system of the Bureau of Manpower, Employment and Training, Bangladesh	The Bureau of Manpower, Employment and Training (BMET) of Bangladesh integrates a digitized system for the recruitment process of migrant workers. The digital smart card generated during the registration and recruitment of Bangladeshi migrant workers is used to process the provision of services to returning migrants, as well as other welfare services (e.g., processing return of a deceased migrant's body and payment of death compensation to the family). Additionally, the BMET has a dedicated online platform for the registration of returning migrants. The BMET also maintains a Facebook page.

Table 3.3 continued

	Tool	Description
Digital p	latforms that assist in migrants' preparation for return at th	ne destination country
46	Balik-Manggagawa Online Processing System of the Philippine Overseas Employment Agency	The Balik-Manggagawa Online Processing System of the Philippine Overseas Employment Agency is a web- based facility that enables returning migrant workers or vacationing OFWs to apply online for overseas employment certificates (OEC). The system aims to expedite the issuance of OECs to vacationing OFWs who will return to their respective foreign employers/ principals. The platform also maintains a Facebook page.

¹ While on service (during migration), information includes scholarships for migrant workers' children, arranging loans, and welfare benefits. At the pre-migration stage, information provided includes on registration, job opportunities, recruitment, and predeparture training and orientation. Additionally, the portal has a linked online platform for job opportunities in Japan and the EPS in the Republic of Korea.

² The platform is also highly relevant at the pre-migration and during migration stages as it offers online information and services related to employment procedures, legal rights and obligations of migrants workers, skills tests (including language), and language learning materials. The EPS is implemented in partnership with 16 migrant origin countries including ASEAN member states.

Sources: ADB (2020b), Global Forum on Migration and Development, ILO (2018, 2019a, 2019b), Wickramasekara (2019), respective websites and reports of and correspondence with managing and/or administering institutions and developers.

The COVID-19 pandemic has affected migration and migrants in numerous ways, while bringing to the fore the opportunities for instigating and expanding the use of technology to share information, and the call to mitigate challenges and improve migrant welfare and migration management systems (Box 3.5).

Box 3.5: Use of Migtech and Digital Tools for Migrant Workers during the COVID-19 Pandemic

The common measures to prevent the spread of COVID-19 implemented globally i.e., lockdowns, travel bans, and social distancing, have severely impacted mobility and, undoubtedly, migration in 2020. These measures reduced global economic activities to almost stop in many sectors. On the one hand, the limited movement of people has caused labor shortages in some economic sectors, which has damaged supply chains. On the other hand, migrant workers are at risk of losing jobs, income, health insurance coverage, and face not only the risk of COVID-19 infection but also isolation from their community. Major challenges also include migrant workers' loss of ability to access healthcare services.

The COVID-19 pandemic is a call for the development of skills and adaptability. Migrant workers must widen their range of skills and adaptability to cope with the COVID-19 impacts in order to survive not only this health crisis, but also other dimensions of economic and humanitarian crises. To help migrant workers cope with these aforementioned impacts and improve their adaptability, this section highlights the role of technology (migtech) and digital tools to help migrant workers cope with the impacts of the COVID-19 pandemic.

First, during the pandemic, governments needed to implement communication channels that provided up-to-date, easy-to-access, accurate, and reliable information to migrant workers about the pandemic situation, public health measures, and healthcare services. Governments in many Organisation for Economic Co-operation and Development (OECD) countries, for example, Canada, Germany, and the United Kingdom, have adopted the use of digital communication channels to inform migrant workers about access to healthcare, changes in travel restrictions, status of their residency, etc. Digital platforms—both online websites and social media—are efficient means for governments to reach out to migrant workers. Social media can reach target audiences or specific groups of migrants directly, while equipped with tracking and responding systems for misinformation sharing (OECD 2020). Both online websites and social media platforms are multilingual to ensure migrants' understanding and accessibility. The websites and social media platforms are also equipped with question and answer sections and live-chat functions to respond to users

Box 3.5 continued

on concerned topics. In Asia, many countries in Southeast Asia e.g., Cambodia, Malaysia, Singapore, and Thailand, provided online information on COVID-19 containment measures to residents and noncitizens in multiple languages. Singapore launched wearable technology in the form of mobile apps to provide information on healthcare to its citizens. The government also implemented "telehealth rehabilitation" to provide tele-consultation, tele-monitoring, and teleeducation during the COVID-19 pandemic. Thailand launched a mobile application called Mor Chana (in Thai, "doctor wins") that offers a contact tracing solution and self-assessment for infection risk based on exposure and travel history. The free application is available in Thai and English. Moreover, the Thai Department of Disease Control launched a COVID-19 migrant hotline to support millions of migrant workers residing in the country, providing information, knowledge, and advice about COVID-19 symptoms, medical treatments, visas, and immigration. In addition, private initiatives can play a role to serve a similar purpose. For example, the digital platform of the volunteer-run group COVID-19 Migrant Support Coalition in Singapore provides education (including language learning courses), mental health and wellness, and recreation services to migrants. It also provides a hotline for migrants who need help with food, housing, and salary assistance. The pandemic has also underlined the nexus among labor health, safety and well-being, and business resiliency. Digital stakeholder engagement tools similarly offer practical instruments that help workers receive information regarding health and safety protocols in their work environments, report their working conditions through pulse surveys, and safely report problems when they arise. As an example, Ulula has run COVID-19 impact assessments in more than 200 factories across 12 countries during the pandemic.¹

Second, digital technology plays a crucial role for migrant workers to stay connected and avoid social isolation during the COVID-19 lockdowns. According to the evidence shown in section 3.2, the Asia and Pacific region presents remarkable progress in internet and mobile penetration, with most people now having access to smartphones. Most migrant workers own mobile phones to stay connected with family, friends, and community. In addition to voice and text messages, the use of chat apps and social media has become widespread and popular. However, some migrant workers lack digital skills and literacy. To ensure migrant workers' ability to access digital technology and knowledge, some OECD countries provided an online learning portal with necessary equipment and devices. Such outreach possibly gives migrant workers with low digital literacy and access greater incentive to resume in-person lessons after the pandemic or when possible (OECD 2020).

It is also important for migrant workers to stay connected and informed with reliable and timely information about work conditions, humane treatments, and updates on immigration regulations and travel restrictions. The International Organization for Migration (IOM) developed the MigApp application in June 2018 to offer reliable information and answer questions frequently asked by migrants in South America. The app broadens the information framework for migration governance to promote safe, regular, and orderly migration (IOM 2019b). The app also serves as a platform for governments to share accurate information about visa regulations, health guidelines, migrant rights, and migration policies directly with migrants. They can also compare costs of money transfer platforms by using this app. The MigApp is a successful case that can be adopted by other regions, particularly during the COVID-19 pandemic. In Thailand, the Smart Domestic Worker app provides a digital channel for migrant workers to get employment information and domestic workers' right in an easy-to-understand format. Moreover, the IOM, in partnership with Diginex Solutions, is developing the eMin project to improve labor supply chain monitoring and management, transparency in recruitment process and employment practices as well as better protection of migrant workers. eMin is being deployed through the use of blockchain solutions, a mobile-optimized platform. During the COVID-19 pandemic, the eMin app offers solutions for business needs to avoid labor exploitation while ensuring and adopting international standards. It also responds to the need to have remote monitoring capabilities in supply chains amid the restrictions on people mobility and physical access.

Third, building up new skills or adaptability to cope with COVID-19 results, migrant workers need to explore opportunities from online learning channels and other digital tools. Many online learning platforms have been launched to connect millions of students and workers to their schools, offices, and knowledge platforms. Many educational websites and government agencies offer free online courses, which can help upgrade workers' skills and knowledge. Educators embrace online learning and hold live-streaming classes through digital platforms (World Bank 2020). At the same time, migtech applications or platforms have been launched by many governments to offer skills development or training programs for migrant workers, e.g., the TESDA Online Program in the Philippines, India's eMigrate, and Accredible. These digital tools also offer a skill-matching platform for employers and migrant workers to cope with labor supply shortages and labor mobility due to COVID-19 travel restrictions e.g., POEA's social media and Malaysia's Foreign Workers Centralized Management System.

Fourth, it is evident that the COVID-19 pandemic has disrupted remittance flows. The World Bank projected a 20% decline in remittances (about \$110 billion) in 2020 due to the impacts of the pandemic (KNOMAD 2020). The decline affects migrant workers' families who rely on incoming remittances for basic necessities, housing, education,

Box 3.5 continued

and healthcare. With limited knowledge and adoption of digital channels or platforms in developing countries, migrant workers and their families face a challenge in sending and receiving remittances. It is thus important to equip their communities with digital literacy and support greater access and use of digital technologies, e.g., e-wallet, mobile banking, and remittance transfer platforms to reduce obstruction to remittance flows. A higher rate of digital financial inclusion can alleviate the impact of the COVID-19 pandemic on remittance flows as well as encouraging greater use of formal digital remittance channels. SaverAsia provides financial literacy and up-to-date information on money transfer services for ASEAN migrant workers via a digital portal. It also compares the costs of sending remittances home. PESO SENSE, by the Philippines in collaboration with the United Nations Development Program and Western Union, offers online financial literacy for overseas Filipinos. Investment in financial education, awareness, and interoperability of payment systems will help upgrade remittance services and costs. This investment can be done with the support of the government and service providers.

Finally, a range of technologies are emerging to facilitate cross-border human mobility in the post-pandemic era. Digital vaccine passports, an app-based proof that a person has been vaccinated, could become an additional requirement to printed passports and travel documents under the "New Normal".

¹ Source: Based on correspondence with Antoine Heuty, founder and CEO of Ulula.

3.3 Evaluation of Migtech

3.3.1 Summary of International Evidence and Other Literature

Impact evaluation of specific migtech platforms remains limited and is at a nascent stage. This can be attributed to challenges in ICT impact measurement, data gaps, and lack of clear statistical standards, among others. For instance, download, use, and output statistics from private sources are limited, or even if and when available, the consistency, validity, and reliability of data are not always or easily verifiable. Similarly, data collected for a purpose other than the current research may not contain all the information desired to adequately and accurately infer outcomes and conclusions. Nonetheless, some evaluation and qualitative assessments are available, and it is vital to document the existing benefits and potential of digital technologies as a valuable resource for migrants throughout their migration journey.

First, migtech tools and platforms—including those that facilitate information gathering and dissemination and rate and review platforms—are found to have improved access to information, resulting in greater awareness of migration risks and opportunities. For example, a qualitative evaluation of the Yay Kyi Yar program in Myanmar (during its radio program phase) found that listeners not only achieved a better understanding of and skills in financial management,⁶ but also gained knowledge about managing migration risks and increased awareness and/or interest in information on jobs and migration (Yin Min Htun et al. 2019).

Related studies also highlight that ICT in general has had a major impact on migration trends by considerably diversifying and increasing migration opportunities (Codagnone and Kluzer 2011, Hamel 2009). Web platforms have also proven effective in providing simple, accessible information; downloadable documents; and online support, for which ease of use and accessibility to a wide range of users are key (Brestovitsky 2016). Similarly, information crowdsourcing facilitated by ICT serves as a powerful tool for migrant workers to organize and raise awareness, particularly about the risks of

⁶ As a result, listeners of the program were also more likely than non-listeners to (i) have greater confidence in saving and/or managing money and better skills at managing loans, as well as (ii) to engage in knowledge sharing among their networks.

migration and human trafficking (Dunsch, Tjaden, and Quiviger 2019; OSCE 2020). Social media has also become useful in increasing awareness about violence and exploitation and providing informal advice to navigate exploitative or violent situations, as well as in influencing migration decisions (e.g., choosing the job sector–domestic work vs. manufacturing).⁷ However, credibility and reliability of information remains an issue (ILO 2019a).

Second, migtech has facilitated social cohesion and integration, and enhanced migrants' ability to manage their transnational lives and access welfare and support services. For example, anecdotal evidence suggests that OFW Watch—as described in Table 3.2—has increasingly been valuable in helping Filipino migrant workers access useful information, find a community in their destination countries, report abuses or rights violations (and document such circumstances), and get connected with relevant authorities and/or organizations for legal protection and rescue or with fellow OFWs for temporary refuge. More recently, OFW Watch in Italy established a COVID-19 task force to respond to pandemic-related concerns of OFWs in Italy. The initiative has contributed to information gathering on individuals who have been temporarily or permanently displaced from their jobs, reaching out to relevant institutions in the Philippines, and pleading with the government to take more action in response to the concerns of distressed Filipinos (Abad 2020).

Related literature supports the above anecdotal evidence. For example, some studies involving women migrant workers from Southeast Asian countries of origin show that ICT proves to be a key platform for social connectivity (Anderson 2016, ILO 2019a, Napier-Moore and Sheill 2016, Platt et al. 2014). ICT also serves as a valuable resource enabling diasporas and transnational families to gather, mobilize, and act across borders (Baldassar et al. 2016, Bernal 2006, Brinkerhoff 2009, Kissau and Hunger 2008, Madianou and Miller 2011, Nedelcu 2018, Nedelcu and Wyss 2016). In fact, some evidence suggests that digitally connected migrants strongly improved their ability to manage transnational lives (Leurs and Ponzanesi 2018). Moreover, ICT-based language learning has been found to improve ICT confidence and access to employment, education, and public services (Pearson 2011),⁸ as well as promote social inclusion as it provides a social space for learning—notwithstanding the fact that socially excluded learners still experience some inequalities in terms of access (Webb 2006).⁹

On a similar note, ICT is an effective tool in facilitating the process of migrants' integration, both in their employment and host communities (Codagnone and Kluzer 2011; Reichel, Siegel, and Tudela 2015). ICT, in general, has also become effective in supporting migrants in vulnerable situations through peer-to-peer connections via a semi-formal system of communication and digital banking services (Horst 2006). Besides maintaining communication with their employers, mobile phones in particular have become strategic instruments for migrants in vulnerable situations to improve their working conditions (Diminescu 2002).¹⁰ Mobile assistance services—including particularly forum and help services, information and recommendation services, pedestrian and transportation navigation, translation, and even digital games—prove to significantly facilitate the social inclusion and integration of migrants.¹¹ Mobile technologies and social media, along with digital maps and global positioning apps, also help migrants—and especially those in precarious conditions—obtain crucial information to plan and successfully navigate their journeys, as well as adapt to shifting (and often hostile) social,

⁷ Based on a qualitative scoping-type study among women migrant workers and key stakeholders from selected Southeast Asian origin countries (Cambodia, Indonesia, Myanmar, and the Philippines).

⁸ Based on a program evaluation of mobile phones to support English language learning for a Bangladeshi community in the United Kingdom.

⁹ Based on a qualitative study of selected ICT learning centers in the United Kingdom exploring the experiences and perceptions of adults from ethnic minority backgrounds learning the English language.

¹⁰ As cited by Nedelcu and Soysüren (2020).

¹¹ http://www.maseltov.eu

political, and economic conditions to which they are exposed (Ennaji and Bignami 2019, Şanlıer Yüksel 2020). Additionally, these tools have become vital in connecting migrants to key stakeholders (such as state and humanitarian actors and transnational activists), and, in turn, helping both migrants and stakeholders document migration journeys, prove human rights violations if any, and demand or provide assistance and justice as necessary (Noori 2020).

Third, migtech platforms and services have resulted in a better understanding of migrant workers' rights, leading to greater confidence and willingness to access justice. Digital worker engagement tools—including rate and review platforms, digital solutions for labor protection and compliance, and those that use educational messages and include worker-management communications—have particularly proven effective at raising worker awareness and willingness to act on recruitment and working conditions issues; enhancing understanding of the processes and challenges migrant workers face throughout their migration journey or across the value chain; and detecting, addressing or preventing risks and issues that contribute to forced labor or unjust recruitment and labor practices.

For instance, collective personal accounts of migrant workers point to the benefit of using the Recruitment Advisor platform in verifying the rating of recruitment agencies based on worker reviews, increasing awareness of their rights in the recruitment process and in their host countries, seeking assistance in cases of rights violation, and sharing their experiences and learning. Similarly, anecdotal accounts from Elevate's corporate clients (including Target and Vodafone) suggest that Laborlink's mobile surveys enabled them to engage migrant workers across their supply chains, become more aware of community-level needs, partner with nongovernment organizations to educate workers about their rights, and identify the existence of modern slavery risks across their global supply chains. Other accounts from Elevate's nongovernment clients (including Amnesty International) indicate that Laborlink mobile surveys allowed them to obtain data on Nepali migrant workers' experiences of undertaking employment overseas and the protection of their rights while at their destination countries. This resulted in advancing the advocacy of rights protection and urging the Nepal government to implement the "Free Visa, Free Ticket" recruitment fee policy and to levy financial penalties against recruitment agencies that charge unlawful fees (Elevate 2018).

In a related qualitative study examining the effectiveness of worker feedback technologies in tackling modern slavery in global supply chains, due-diligence oriented technology tools—such as Laborlink— were cited to help control (although rarely identified)¹² risks of modern slavery in supply chain hot spots. On the other hand, remediation-oriented worker feedback technologies—such as Golden Dreams, Shuvayatra, Worker Connect, and Recruitment Advisor—were found to help identify and address modern slavery, forced labor, and human trafficking (Taylor and Shih 2019).

This is consistent with findings of related studies. For instance, in a randomized information intervention aimed at facilitating worker mobility among Filipino domestic workers in Singapore, information interventions lead to improvements in knowledge of legal rights related to finding and changing jobs, as well as in job conditions (e.g., improved hours and other working conditions) (Shrestha and Yang 2019).¹³ Other studies particularly highlight the effectiveness of online search options in facilitating job-to-job transitions and (indirectly) in enabling workers to better negotiate with current employers

¹² This is due to the lack of trust from workers and confidence from businesses in exposing or addressing modern slavery.

¹³ The intervention consists of providing verbal and written information on Singapore's labor laws about changing employers, in addition to a list of current job vacancies for domestic work in Singapore and information about a free online job portal where migrant workers could obtain updated information on job openings for foreign domestic workers (Shrestha and Yang 2019).

(Stevenson 2009). Some evidence further shows that virtual platforms through the internet allow migrants to strengthen their identities and express their claims (Baujard 2008).¹⁴

Finally, migtech platforms and services hold great potential in promoting migrants' social and economic empowerment. For example, a case study of Valyou (a mobile wallet provider) suggests that digital solutions for remittances and financial management can help empower migrant workers—especially the institutionally unbanked and less tech-savvy—when inclusivity¹⁵ is embedded in the design and processes underpinning a technology (Telepin 2019). An assessment of the Philippines' TESDA Online Program (TOP)—an example of digital tools that provide training and certification—also suggests that online courses can empower both current and potential overseas workers by upgrading their skills to shift from vulnerable to decent jobs and expanding income opportunities (Dumaua-Cabautan et al. 2018). The assessment, along with previously related studies, also showed that relative to traditional settings, TOP (whether fully online or in blended learning modes of delivery) has higher rates of uptake and participation in the assessment and certification. TOP's effectiveness is also underscored by its high pass rates, possibly explained by the flexibility that e-education offers to learners, which facilitates more opportunities for mastery at the learner's pace. Nonetheless, the cost and speed of internet access remains an issue, and greater efforts to raise awareness of the program among overseas workers is needed.¹⁶

On a similar note, collective qualitative and anecdotal evidence suggests that digital migration management systems and databases (such as those operated by government institutions and international organizations)—integrated with social media platforms for onsite services—have also become essential and effective in reaching out and providing assistance to migrants, as well as in facilitating regular, safe, and orderly migration.

A set of related literature further substantiates and complements this body of evidence. For instance, some studies in selected African countries provide evidence that mobile money could effectively reduce transaction costs, facilitate remittances, and encourage and/or improve risk-sharing among households, consequently enabling them to better smooth consumption and respond to shocks (Batista and Vicente 2018; Iazzolino 2015; Jack, Ray, and Suri 2013; Jack and Suri 2014; Munyegera and Matsumoto 2014; Riley 2016).¹⁷ Some studies further highlight the longer-term impact of mobile money services on poverty reduction. In Bangladesh for instance, increases in remittances influenced by greater access to mobile banking services led to increased consumption (by 7.5%) and lower extreme poverty rates among rural households. For urban migrants themselves, the positive effects of increased savings and reductions in poverty levels came at a cost, particularly in terms of health (Lee et al. 2021). On a different note, surveys among women migrant workers from Southeast Asia, suggest that in some cases ICT promoted a degree of social empowerment by increasing their autonomy and independence, primarily by enabling them to connect globally to a range of information (ILO 2019a, Platt et al. 2014). Evidence also shows that low-skilled and forced migrants are empowered through their strategic use

¹⁴ As cited by Nedelcu and Soysüren (2020).

¹⁵ That is, technology offers a stable and flexible service that allows inexperienced users to easily interact with it, particularly through ease of navigation, configuration in the user's language, and provision of assistance services (Telepin 2019).

 $^{^{\}rm 16}\,$ Measuring the impact of TOP on employment and income also remains limited.

¹⁷ For example, Munyegera and Matsumoto (2014) found that in Uganda, the use of mobile money services is correlated to an average increase of 69% in household per capita consumption. In terms of remittances, the same study found that mobile money user households are more likely to receive remittances (i.e., by 20 percentage points) relative to their non-user household counterparts. Similarly in Kenya, Jack et al. (2013) found that user households are more likely to receive and send remittances, each by over 30 percentage points. It should be noted that while these effects (and those cited above) are mostly in the context of domestic migration, the impacts are indicative of potential benefits in the context of international migration.

of ICT, including by accessing useful information, validating information with trusted social ties, and triangulation of online sources (Dekker et al. 2018, Gillespie et al. 2016, Smets 2017).

3.3.2 Opportunities and Challenges

Digital solutions hold great potential in enhancing migration processes, facilitating migrants' access to services and opportunities, and improving the monitoring and evaluation—and thereby effectiveness— of policy interventions and aid programs.

First, digital identity solutions and blockchain technology can be harnessed for cost-efficiency and effectiveness of migration processes and programs, including through establishing the official identities of migrants and refugees, improving remittance and payment systems and supply chain tracing, enhancing mobility and access to social and welfare services, and fostering transparency and accountability of aid and policy interventions. More specifically, digital identity solutions can help migrants and refugees authenticate and/or regain their official identities, and similarly reduce fraud and bureaucratic burdens by streamlining processes and operative costs for public and private sectors. These can have direct impacts on migrants' welfare, including in terms of improving their mobility and access to education, healthcare, and job opportunities (Butty 2019). Similarly, blockchain technology can provide a decentralized database of verifiable transactions, as well as track and report on migration and asylum policy interventions including in migration and asylum procedures,¹⁸ migrant integration programs, remittances,¹⁹ working or detention conditions, missing migrants, and return migration procedures (Ardittis 2018). Specific illustrative examples of these technologies are discussed in Box 3.6.

Box 3.6: Digital Identity Solutions and Blockchain Technology in Migration

There are some initiatives in the application of blockchain technology and digital identity solutions in international migration. From the private sector, a startup, Juvo, utilizes advanced data science and machine learning technologies to create financial identities. The company has operations in Brazil, Singapore, and the United States, and has served people globally (including migrants) who are creditworthy yet financially excluded due to a lack of formal financial records. Similarly, MintHealth, a global decentralized health platform, leverages blockchain technology to empower patients with their health information and records and take hold of their healthcare. The platform aims to better facilitate the transfer of patient data, coordinates healthcare mobility access, and, more broadly, improves governance of the health ecosystem by aligning stakeholders. Another initiative is ID 2020 Alliance, a multi-stakeholder global partnership that funds pilot projects that bring digital identity to vulnerable populations, and uses the information generated to seek out scalable solutions and inform public policy. From the humanitarian and development sector, the Building Blocks project by the United Nations World Food Programme uses blockchain technology to facilitate cash transfers and deliver food assistance to Syrian refugees in Jordan. The project enabled the creation of virtual accounts for refugees and also the uploading of (monthly) settlements that refugees can spend within the camp's supermarket through the utilization of an authorization code. Reportedly, the project has contributed to a 98% reduction of bank costs entailed by employing a financial services provider.¹

Sources: Ardittis (2018), Juskalian (2018), World Food Programme.

¹ Other UN agencies—including the UN Office for Project Services, UNDP, UNICEF, UN Women, UNHCR, and the UN Development Group—are also considering blockchain applications that could help support international assistance, particularly supply chain management tools, self-auditing of payments, identity management, and data storage.

¹⁸ Such as in conducting initial interviews through to final decisions and appeal procedures, in addition to activities related to biometric collection and administration of databases (e.g., European Asylum Dactyloscopoy, Schengen Information 2System, Visa Information System) (Ardittis 2018).

¹⁹ That is, both in terms of reducing transaction costs and facilitating more accurate identification of relevant actors.

Second, big data sources can improve the understanding of mobility and migration processes. For example, mobile phone call detail records, which are typically utilized to spot internal migration patterns, may be valuable in measuring international migration, particularly when coupled with other sources. For instance, call detail records data combined with satellite data can help in mapping mobility between cross-border communities (Sorichetta et al. 2016). International mobile phone calls combined with geospatial social media data and official labor force statistics may also be useful in assessing the social integration of migrants in host countries (Migration Data Portal); or when combined with census statistics, in understanding patterns of refugee integration (Boy et al. 2019). In the same vein, geolocated social media activity (e.g., on Facebook, Twitter, LinkedIn) may be leveraged to study mobility patterns. The self-reported and geotagged information from these platforms are used, for example, to infer international migration flows and stocks with relevant disaggregations, including by age, gender, skill level, or sector of occupation (Gendronneau et al. 2019, Patel et al. 2017, Zagheni et al. 2014).²⁰

Likewise, social media data may be used as a source of information as in a "real-time census" to estimate the quantity of migrants, or to investigate public sentiments on migration (Spyratos et al. 2019; UN Global Pulse and UNHCR 2017; Zagheni, Weber, and Gummadi 2017). Repeated logins to the same website and internet protocol addresses from email sending activities (e.g., IP addresses from Google, Yahoo, etc.) are often valuable in estimating the likelihood and patterns of international mobility (State et al. 2014, Zagheni and Weber 2012). Self-reported demographic information might also be used to estimate migration rates. Online search data may also be an instrument in forecasting forced migration (Connor 2017, UN Global Pulse 2014). Analogously, the Google Trends Index for migration-related search terms may be employed to measure migration intentions and predict future migratory flows (Böhme, Gröger, and Stöhr 2020).²¹ Artificial intelligence (AI) and machine learning may be further exploited to better understand migration-related phenomena and public attitudes toward migrants and refugees, as well as predict future migration flows.²² Telemedicine platforms also hold a large potential and might be further developed to deal with migration-related sociomedical issues (e.g., exclusion from and/or difficulty in accessing formal health services, lack of medical records, language differences), which may be particularly helpful for itinerant and seasonal workers, short-term migrants, and others on the move (Global Forum on Migration and Development 2020).

Third, taking a broader perspective, digitization and the increasing cross-border movement of data and information facilitate new forms of the global division of labor and migration in which work is independent of any requirement to be in a specific physical location. Virtual migration is a particularly growing phenomenon (Aneesh 2006, Centre for Digital Cultures²³). For instance, online and remote work platforms are enabling people to perform work for overseas employers under the legal, temporal, and cultural frameworks of destination countries without having to physically move from their origin

²⁰ For example, Facebook's Disease Prevention Maps provide data on population distribution and movement on a daily basis during the COVID-19 pandemic. These maps are designed to help public health organizations and other stakeholders improve the effectiveness and reach of health campaigns and epidemic response (Maas et al. 2020, https://dataforgood .fb.com/tools/disease-prevention-maps/).

²¹ For example, the European Asylum Support Office's Early Warning and Preparedness System utilizes a combination of Google Trends data and traditional data sources to detect changes in country of origin contexts and forecast asylum applications in the European Union (Migration Data Portal).

²² For instance, UNHCR's Project Jetson—a machine learning-based experiment—provides predictions on the movements of displaced people. In one component program, Project Jetson calculates an index with AI that enables short-term predictions of expected migration flows in Somalia based on key variables, such as commodity market prices, rainfall, and violent conflicts (Migration Data Portal). AI can also complement and improve human expertise in interpreting satellite imagery to identify internal displacement or infrastructural destructions following natural disasters (Quinn et al. 2018). Radio content, coupled with machine learning, has also been used to understand public attitudes toward refugees in Uganda (Quinn and Hidalgo-Sanchis 2017).

²³ http://www.platform-mobilities.net/en/konzepte-notizen#top-anker

countries.²⁴ Another growing phenomenon arising from technological advances, digital infrastructure developments, and new employment models is digital nomadism—a novel mode of lifestyle-centric and location-independent labor migration in which workers (digital nomads) combine online labor and (potential) mobility "to maintain a lifestyle of permanent travel, working remotely in cultural and nature hotspots around the world" (Hermann and Paris 2020, Polson 2019).²⁵ Asian countries, and especially Southeast Asian countries (e.g., Thailand, Indonesia, Malaysia, Viet Nam, and Singapore) tend to be among the most popular destinations for digital nomads (ASEAN Post 2020). Some countries have introduced remote work, freelance, or digital nomad visas (or some extensions in their existing types of visa to accommodate remote workers), including Australia, Georgia, and Thailand in Asia and the Pacific; Germany, Czech Republic, Portugal, Norway, and Estonia in Europe; and Costa Rica and Mexico in Latin America.

The opportunities offered by technology and digitization in migration systems are met by some challenges:²⁶

- Data privacy and security risks: Platforms that collect data about migrants and their experiences or activities-whether intentionally or as a byproduct of gathering other information-can generate risks to individuals or groups. For instance, government, private, or third parties could gain access to a migrant's information by accessing their devices or digital profiles, whether given with a migrant's informed consent, authorized as a part of legal processes, or unauthorized. Centralized databases may also unintentionally leak migrant data or suffer from hacking. Third-party access to workers' data may also pose a potential breach of worker data privacy and protection and cause negative consequences on workers' visa conditions, such as when private platform developers share data with recruiters or employers who may retaliate against workers for providing unfavorable information. These risks may be compounded by concerns over who ultimately owns the migrant's data, changes in privacy policies and terms of use at points in time, and whether platform hosts take the responsibility to minimize privacy and security risks to users, especially when such risks may not be fully understood by users. Additionally, many platforms-especially social media-have data sharing agreements in place (or similar type of contracts with other parties), but there is often no way for users to identify these third parties or how they make use of the data. Data sustainability issues may also arise, such as regarding data retention or possible increased restrictions as the initiatives of app and platform owners and/or administrators expand.
- Legal and other risks to digital platform hosts and migrants: Digital tools and platforms carry a range of risks for platform hosts, including legal, financial, and reputational risks. For one, worker engagement platforms enabling migrant workers to rate and review recruiters or employers may expose hosts and users to risks of civil or criminal liability for defamation. For example, platform hosts may be liable for promising outcomes that end up undelivered, breaching data privacy without migrant users' consent, or providing misleading or false information. Managing these risks may be particularly challenging in jurisdictions where the rule of law is weak and judicial corruption is a grave problem. On a similar note, the implementation, scalability, and sustainability of migtech tools and platforms require adequate

²⁴ Examples of such platforms include Upwork, Remote OK, We Work Remotely, Appen, and Clickworker, which are global freelancing or crowdwork platforms offering positions for recurring projects, short-term tasks, and full-time or part-time jobs. Other similar platforms further support on-site jobs with flexible and alternative schedules or provide additional resources such as skill tests and e-courses to help remote workers in their application and career search (e.g., FlexJobs, VirtualVocations).

²⁵ Also see for example Blatt and Gallagher (2013), Cook (2020), Mancinelli (2020), Müller (2016), Nash et al. (2018), Olga (2020), Reichenberger (2018), Sutherland and Jarrahi (2017), and Thompson (2019), among others.

²⁶ Authors' reflections and various reports, including ADB (2020b), Farbenblum, Berg, and Kintominas (2018), Global Forum on Migration and Development (2020), and ILO (2019a, 2019b).

and continuous funding. The lack of longer-term financial investment or support constrains organizations' capacity to monitor users' interaction with such tools and platforms and undertake evaluation and iterative improvements accordingly. Reputational risks for platform hosts arising from failure to deliver outcomes or provision of inadequate, biased, and/or inaccurate information may also lead to loss of trust and willingness from both funders and users. This, in turn, certainly affects the uptake and engagement in related future initiatives (i.e., spoil the market for future services).

- Effectiveness: Engaging with digital technologies undoubtedly brings a range of benefits to migrant users. However, it is vital that migrant users clearly understand how their information is intended to be used and improve their circumstances, and what outcomes are envisaged through the use of and/or participation in the migration-related digital initiatives. While it may be plausible to measure the quantity of data obtained from digital platforms, as with any other development program, it is much harder to measure and assess the effectiveness or quality of outcomes for migrants, let alone to ascertain the reliability and representativeness of information. Moreover, there are general tradeoffs between the collection of data at scale and ensuring the comprehensiveness and credibility of obtained information. It is thus important to support the iterative development of digital tools and platforms, and acknowledge that these are a means for enhancing broader migration programs with well-designed objectives and strong institutional capacity or support.
- **Digital divide:** The problem of equity in migrants' access to and use of technology and distribution of gains remains a crucial issue. The collective evidence suggests that migrants with higher levels of education and income are more likely to have mobile phones with them on their migration journey. Similarly, and as expected, young migrants from urban areas have greater access to mobile phones relative to those coming from rural backgrounds (Frouws and Brenner 2019). There is also a lack of understanding among migrants of how technology can aid in the migration process. For example, the use of ICT-based solutions is limited to what migrants believe ICT exists for—social connectivity followed by general information access (Anderson 2016, ILO 2019a). Migrant workers may face additional access constraints, including literacy in their native language or that of their host country. Moreover, mobile phone ownership may not necessarily translate into meaningful use for various reasons, including affordability concerns of regular data access and access restrictions due to employer surveillance.
- **Risks of supporting irregular migration:** Due to the misuse and/or misapplication of digital tools and platforms—compounded by the proliferation of misleading information and fake journalism—new forms of technology may inadvertently facilitate irregular migration and support entities and outfits involved in human trafficking, modern slavery, or other illegal and unethical practices against migrants. In particular, these tools may facilitate the cross-border movement of irregular migrants and coordinate the illicit activities of smugglers and traffickers primarily via document fraud, abuse of visa-free travel schemes, and advertising of smuggling services (Europol 2018).

3.3.3 Policy Recommendations

Taking into account the opportunities and challenges of migtech tools and platforms, below are some policy recommendations to better facilitate their uptake and effective implementation.

First, there is no doubt that migtech is revolutionizing the way information is shared and disseminated, creating webs of virtual but strong social communities that empower migrants. In order to benefit from the technologies, enhancing the digital literacy and skills of migrants should be integrated in migrant welfare programs throughout the migration cycle. This will help bridge digital divides and enhance accessibility of information and services. Furthermore, greater efforts and digital outreach

from stakeholders and service providers, coupled with innovative approaches that encourage migrants to contribute and share information and feedback, are essential.

Second, it cannot be overstressed that inclusivity should be at the forefront in the design, systems, and processes underpinning digital activities and/or transactions. Relevant considerations may include ease of use and simple, engaging interface of tools and platforms; configuring apps and platforms in the user's language; using voice-based technology to facilitate access for migrants with low literacy levels or digital capacity; designing for accessibility (e.g., text size options) and multiple user interfaces (e.g., complementing chat and review functions with text, phone, and other platforms to help enable access for those with low literacy and/or digital capacity or those without access to smartphones or data); allowing offline access to content; and participatory design processes with migrants and digital security experts, among others.

Third, governments, nongovernment organizations, and other institutions can assist innovators in the field by providing support, including funding. Among others, technologies that enhance the integration of public digital migration management systems with other platforms such as social media and SMS can help in this regard, while ensuring that information is accurate, comprehensive, clear, and up-to-date.

Fourth, the dearth of comparable data on labor migration and migrant access to and use of technology calls for greater data collection efforts and partnership among multiple stakeholders, including the public and private sectors, apps and platform developers, digital security experts, international development organizations, civil society, and diasporas. Partnerships are highly encouraged in the design process of apps and platforms, monitoring and evaluation of outcomes, iterative development of existing apps and platforms, and building new initiatives. This approach could help in fostering more migrant-focused initiatives, and also in overcoming structural challenges in migration governance.

Fifth, the reduction of regulatory restrictions and policy barriers that influence the supply of digital technologies and digitally enabled services must be pursued to facilitate the uptake of technology in general, along with ensuring the interoperability of regulations and laws across borders. Policy areas may include communication infrastructure and other measures affecting connectivity (e.g., cross-border data flows), electronic transactions, payment and remittance systems, and measures pertaining to data policies (including content access and intermediate liability).

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MIGTECH: HOW TECHNOLOGY IS RESHAPING LABOR MOBILITY AND THE LANDSCAPE OF INTERNATIONAL MIGRATION

Appendix

URLs of Selected Apps and Platforms

Accredible: https://www.accredible.com/ Apprise: https://www.apprise.solutions/home Balik-Manggagawa Online Processing System (POEA Philippines): https://www.bmonline.ph/ BaLinkBayan: https://www.balinkbayan.gov.ph/ Bureau of Foreign Employment (Sri Lanka): http://www.slbfe.lk/ Bureau of Manpower, Employment and Training (Bangladesh): http://www.bmet.gov.bd/ Busuu: https://www.busuu.com/ Company IQ: https://companyiq.mylogiq.com Community Response: https://www.iom.int/community-response-app Consular Services Management System (India): https://madad.gov.in/ Cousera: https://www.coursera.org/ Duolingo: https://www.duolingo.com/ EdX: https://www.edx.org/ Employment Permit System (Republic of Korea): https://www.eps.go.kr/ Emigrate of India's Ministry of External Affairs: https://emigrate.gov.in/ext/home.action ENIC-NARIC: https://www.enic-naric.net/ Foreign Workers Centralized Management System (Malaysia): https://fwcms.com.my/ Future Learn: https://www.futurelearn.com/ Golden Dreams: https://play.google.com/store/apps/details?id=com.appspot.goldendreams_production .twa&pcampaignid=pcampaignidMKT-Other-global-all-co-prtnr-py-PartBadge-Mar2515-1 Hospo Voice: https://www.hospovoice.org.au/ Labor Solutions: https://www.laborsolutions.tech/ Mein Weg Nach Deutschland: https://www.goethe.de/prj/mwd/en/index.html Memrise: https://www.memrise.com/ Ministry of Labor, Invalids and Social Affairs (Viet Nam): http://english.molisa.gov.vn/Pages/home.aspx

Merchantrade Money: https://www.merchantrademoney.com/ MigApp: https://www.iom.int/migapp OFW Watch: https://www.ofwwatch.com/ Outflank Pay Tracker: https://www.outflank.com.au Pantau PJTKI: http://pantaupjtki.id/ PESO SENSE: https://pesosense.com/ Philippine Overseas Employment Agency: https://www.poea.gov.ph/poeaonline.html Recruitment Advisor: https://www.recruitmentadvisor.org/ Remittance Prices Worldwide (World Bank): https://remittanceprices.worldbank.org/en Rosetta Stone: https://www.rosettastone.com Record My Hours: https://www.fairwork.gov.au/tools-and-resources/record-my-hours-app#about-the-app Saverasia: https://saverasia.com/ Shuvayatra: https://shuvayatra.org/ SIRA App: https://siraet.com/ Skilled Workers Arrival Database for Employment Support (India): http://www.nsdcindia.org/swades/ Smart Domestic Workers: https://appgrooves.com/app/smart-domestic-workers-by-tumapps-companylimited TESDA Online Program: https://www.e-tesda.gov.ph/ Translators Without Borders: https://translatorswithoutborders.org/ Udacity: https://www.udacity.com/ Udemy: https://www.udemy.com/ Ulula: https://ulula.com/

&Wider: https://www.andwider.com/

ANNEX1

ECONOMY-SPECIFIC NOTES

BANGLADESH										
KEY INDICATORS										
				GDP per	GDP					
			Population	capita (constant	growth rate		l abor mark	et indicators		
			(million)	2010 \$)	(annual, %)		(201	9,%)		
2009			145.9	748	5.0	Employmer	nt / population	ratio	56.5	
						(15+, total)				
2019			163.0	1,288	8.2	Unemployment (% of total labor force)			4.2	
Immigrant Population in Bangladesh			Stock of ford	ian-born por	(0+)	Foroign-b	Fourier house whether 15 years old and are			
			Total	ngn-born pop % of	Julation (0+)	roreign-b	ompopulatio	% low-	% high-	
			('000s)	population	% women	% 15-24	% 25-64	educated	educated	
2000			988	0.77	46	17.8	68.4	n.a.	n.a.	
2015			1,423	0.91	47	15.3	65.2			
2019			2,186	1.34	49	13.5	57.1			
Stock of foreign workers by sector					То	tal				
Number of foreign workers (*000s)										
% of total employment	2000		2012	2012	2014	2015	2016	2017	2019	
Stock of International students (000s)	16		2012	2015	2014	2015	2010	2017	2016	
Inflows of foreign workers ('000s)	2010	2011	2012	2013	2014	2015	2016	2017	2018	
Emigration from Bangladesh to OECD countries										
			2000				2015/16			
Stock of persons born in Bangladesh living in OECD count	tries	Men	Women	Total		Men	Women	Total		
Emigrant population 15+ ('000s)		161.9	123.6	285.5		390.4	295.9	686.3		
Recent emigrants 15+ ('000s)		33.0	24.4	57.4		18.4	24.5	21.0		
15-24 (% of population 15+)		17.2	23.1	19.7		9.6 9F F	11.0	10.2		
Z5-64 (% of population 15+)		/8.2	/3.3	/0.1		0.7	0.5	0.6		
Emigration rates of the high-educated (%)		2.7	2.0	2.4		4.0	65	4.8		
			2.0				0.5			
Legal migration flows to OECD (5 main destinations, '000s)	2010	2011	2012	2013	2014	2015	2016	2017	2018	
Total	49.4	49.3	41.7	43.5	48.9	50.8	51.2	51.7	54.0	
United States	14.8	16.7	14.7	12.1	14.6	13.6	18.7	14.7	15.7	
Italy	9.7	10.3	10.1	10.5	12.7	12.4	10.7	14.6	13.4	
Rep. of Korea	2.9	2.3	1.9	2.5	3.3	2.9	2.9	2.7	3.3	
Canada	4.7	2.7	2.6	3.8	2.2	3.3	3.2	3.2	3.2	
Japan	1.1	8.0	1.2	1.2	2.0	2.4	2.8	2.8	2.6	
Stock of international students (3 main destinations, '000s)	2009	2010	2011	2012	2013	2014	2015	2016	2017	
Inited States	15.0	15.5	10.0	10.0	2.0	20.0	21.5	23. 1	24.0	
Australia					3.6	3.0	5.4 4.4	47	5.0	
United Kingdom					4.2	4.9	3.6	3.1	2.5	
Emigration to non-OECD destinations										
Stock of workers overseas (5 main destinations, '000s)	2011	2012	2013	2014	2015	2016	2017	2018	2019	
Total	4,046.2									
Saudi Arabia	1,315.6									
United Arab Emirates	1,176.5									
Malaysia	453.8									
Kuwait	214.9									
Flows of workers deployed (5 main destinations '000s)	220.7	2012	2013	2014	2015	2016	2017	2018	2019	
Total	568.1	607.8	409.3	425.7	555.9	757.7	1 008.5	734.2	700.2	
Saudi Arabia	15.0	21.2	12.7	10.7	58.3	143.9	551.3	257.3	399.0	
Oman	135.3	170.3	134.0	105.7	129.9	188.2	89.1	72.5	72.7	
Qatar	13.1	28.8	57.6	87.6	124.0	120.4	82.0	76.6	50.3	
Singapore	48.7	58.7	60.1	54.8	55.5	54.7	40.4	41.4	49.8	
Jordan	4.4	11.7	21.4	20.3	22.1	23.0	20.4	9.7	20.3	
Net migration rate (per thousand)	1985-1990	1990-199	1995-2000	2000-2005	2005-2010	2010-2015	2015-2020	2020-2025	2025-2030	
	-0.45	-1.49	-1.19	-2.24	-4.54	-3.04	-2.30	-2.07	-1.88	
Remittance inflows (current \$ million)	2011	2012	2013	2014	2015	2016	2017	2018	2019e	

CAMBODIA									
KEY INDICATORS									
			Population (million)	GDP per capita (constant 2010 \$)	GDP growth rate (annual,%)		Labor market (2019)	indicators	
2009			14.1	753	0.1	Employment (15+, total)	/ population ra	atio	81.8
2019			16.5	1,269	7.1	Unemployme	ent (% of total	labor force)	0.7
Immigrant Population in Cambodia									
			Stock of fore	ign-born pop	oulation (0+)	Foreign-bo	orn population	, 15 years old	and over
			Total ('000s)	% of population	% women	% 15-24	% 25-64	% low- educated	% high- educated
2000			146	1.2	46	22.5	22.0		
2015						22.5	32.0		
2015			74	0.5	47	17.3	71.7		
2015			74 79	0.5 0.5	47 49	17.3 13.3	71.7 74.1		
2015 2019 Stock of foreign workers by sector, 2015	Total	Agriculture, forestry, and fishing	74 79 Manufacturing	0.5 0.5 Construction	47 49 Wholesale and retail trade; repair of motor vehicles and motorcycles	17.3 13.3 Accommodation and food service	71.7 74.1 Administrative and support service activities	Other	

% of total employment	0.1								
Stock of international students ('000s)	2006		2012	2013	2014	2015	2016	2017	2018
Inflows of foreign workers ('000s)	2010	2011	2012	2013	2014	2015	2016	2017	2018

Fundamentary forms Co		CD
Emigration from Ca	ambodia to Of	CD countries

			2000				2015/16		
Stock of persons born in Cambodia living in OECD countrie	es	Men	Women	Total		Men	Women	Total	
Emigrant population 15+ ('000s)				239.1		130.1	162.2	292.3	
Recent emigrants 15+ ('000s)				15.2		5.9	8.8	7.5	
15-24 (% of population 15+)				11.8		5.8	5.0	5.3	
25-64 (% of population 15+)				81.1		76.7	78.2	77.5	
Total emigration rates (%)				3.2		2.5	2.9	2.7	
Emigration rates of the high-educated (%)				52.7		16.7	29.0	21.0	
Legal migration flows to OECD (5 main destinations, '000s)	2010	2011	2012	2013	2014	2015	2016	2017	2018
Total	10.0	12.4	15.1	16.6	16.5	17.2	19.8	20.2	18.9
Rep. of Korea	3.7	6.4	9.5	10.5	9.5	9.6	10.2	9.5	8.7
Japan	1.1	1.1	1.1	1.3	2.3	3.7	4.2	4.8	5.0
United States	3.0	2.7	2.5	2.6	2.5	1.9	3.2	4.1	3.2
Australia	0.9	0.8	0.8	0.8	0.8	0.8	0.8	0.7	0.8
France	0.5	0.4	0.4	0.4	0.5	0.4	0.3	0.3	0.4
Stock of international students (3 main destinations, '000s)	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total					2.4	2.7	2.9	36.7	35.4
Australia					0.6	0.7	0.8	0.9	1.1
United States					0.4	0.5	0.5	0.6	0.5
France					0.4	0.6	0.6	0.4	0.6
Emission to non OECD doctingtions									
Emigration to non-OECD destinations									
Stock of workers overseas (5 main destinations, '000s)	2010		2013	2014	2015	2016	2017	2018	2019
Stock of workers overseas (5 main destinations, '000s) Total	2010 133.27		2013	2014	2015	2016	2017	2018 1,165.2	2019
Stock of workers overseas (5 main destinations, '000s) Total Thailand	2010 133.27		2013	2014	2015	2016	2017	2018 1,165.2 1,134.2	2019
Stock of workers overseas (5 main destinations, '000s) Total Thailand Malaysia	2010 133.27		2013	2014	2015	2016	2017	2018 1,165.2 1,134.2 30.1	2019
Stock of workers overseas (5 main destinations, '000s) Total Thailand Malaysia Singapore	2010 133.27		2013	2014	2015	2016	2017	2018 1,165.2 1,134.2 30.1 0.9	2019
Stock of workers overseas (5 main destinations, '000s) Total Thailand Malaysia Singapore Hong Kong, China	2010 133.27		2013	2014	2015	2016	2017	2018 1,165.2 1,134.2 30.1 0.9 0.1	2019
Stock of workers overseas (5 main destinations, '000s) Total Thailand Malaysia Singapore Hong Kong, China Saudi Arabia	2010 133.27		2013	2014	2015	2016	2017	2018 1,165.2 1,134.2 30.1 0.9 0.1 0.0	2019
Stock of workers overseas (5 main destinations, '000s) Total Thailand Malaysia Singapore Hong Kong, China Saudi Arabia Flows of workers deployed (5 main destinations, '000s)	2010 133.27 2011	2012	2013 2013	2014 2014	2015	2016	2017 2017	2018 1,165.2 1,134.2 30.1 0.9 0.1 0.0 2018	2019 2019
Emgratori to non-OECD destinations Stock of workers overseas (5 main destinations, '000s) Total Thailand Malaysia Singapore Hong Kong, China Saudi Arabia Flows of workers deployed (5 main destinations, '000s) Total	2010 133.27 2011 26.2	2012 34.8	2013 2013 2013 22.6	2014 2014 24.7	2015 2015 40.8	2016 2016 85.5	2017 2017 96.3	2018 1,165.2 1,134.2 30.1 0.9 0.1 0.0 2018 68.6	2019 2019 68.0
Stock of workers overseas (5 main destinations '000s) Total Thailand Malaysia Singapore Hong Kong, China Saudi Arabia Flows of workers deployed (5 main destinations, '000s) Total Thailand	2010 133.27 2011 26.2 16.8	2012 34.8 26.4	2013 2013 22.6 13.5	2014 2014 24.7 15.8	2015 2015 40.8 31.0	2016 2016 85.5 76.4	2017 2017 96.3 87.9	2018 1,165.2 1,134.2 30.1 0.9 0.1 0.0 2018 68.6 60.3	2019 2019 68.0 57.8
Stock of workers overseas (5 main destinations Total Thailand Malaysia Singapore Hong Kong, China Saudi Arabia Flows of workers deployed (5 main destinations, '000s) Total Thailand Rep. of Korea	2010 133.27 2011 26.2 16.8 5.0	2012 34.8 26.4 8.1	2013 2013 22.6 13.5 8.5	2014 2014 24.7 15.8 7.4	2015 2015 40.8 31.0 7.5	2016 2016 85.5 76.4 7.4	2017 2017 96.3 87.9 6.0	2018 1,165.2 1,134.2 30.1 0.9 0.1 0.0 2018 68.6 60.3 4.9	2019 2019 68.0 57.8 5.9
Stock of workers overseas (5 main destinations '000s) Total Thailand Malaysia Singapore Hong Kong, China Saudi Arabia Flows of workers deployed (5 main destinations, '000s) Total Thailand Rep. of Korea Japan	2010 133.27 2011 26.2 16.8 5.0 0.1	2012 34.8 26.4 8.1 0.1	2013 2013 22.6 13.5 8.5 0.1	2014 2014 24.7 15.8 7.4 0.5	2015 2015 40.8 31.0 7.5 1.4	2016 2016 85.5 76.4 7.4 1.6	2017 2017 96.3 87.9 6.0 2.3	2018 1,165.2 1,134.2 30.1 0.9 0.1 0.0 2018 68.6 60.3 4.9 3.0	2019 2019 68.0 57.8 5.9 3.9
Stock of workers overseas (5 main destinations '000s) Total Thailand Malaysia Singapore Hong Kong, China Saudi Arabia Flows of workers deployed (5 main destinations, '000s) Total Thailand Rep. of Korea Japan Singapore	2010 133.27 2011 26.2 16.8 5.0 0.1 0.0	2012 34.8 26.4 8.1 0.1 0.0	2013 2013 22.6 13.5 8.5 0.1 0.1	2014 2014 24.7 15.8 7.4 0.5 0.2	2015 2015 40.8 31.0 7.5 1.4 0.1	2016 2016 85.5 76.4 7.4 1.6 0.1	2017 96.3 87.9 6.0 2.3 0.1	2018 1,165.2 1,134.2 30.1 0.9 0.1 0.0 2018 68.6 60.3 4.9 3.0 0.3	2019 2019 68.0 57.8 5.9 3.9 0.1
Stock of workers overseas (5 main destinations '000s) Total Thailand Malaysia Singapore Hong Kong, China Saudi Arabia Flows of workers deployed (5 main destinations, '000s) Total Thailand Rep. of Korea Japan Singapore Malaysia	2010 133.27 2011 26.2 16.8 5.0 0.1 0.0 4.4	2012 34.8 26.4 8.1 0.1 0.0 0.2	2013 2213 22.6 13.5 8.5 0.1 0.1 0.1 0.1	2014 2014 24.7 15.8 7.4 0.5 0.2 0.5	2015 2015 40.8 31.0 7.5 1.4 0.1 0.8	2016 2016 85.5 76.4 7.4 1.6 0.1 0.1	2017 2017 96.3 87.9 6.0 2.3 0.1 0.0	2018 1,165.2 1,134.2 30.1 0.9 0.1 0.0 2018 68.6 60.3 4.9 3.0 0.3 0.1	2019 2019 68.0 57.8 5.9 3.9 0.1 0.1
Stock of workers overseas (5 main destinations, '000s) Total Thailand Malaysia Singapore Hong Kong, China Saudi Arabia Flows of workers deployed (5 main destinations, '000s) Total Thailand Rep. of Korea Japan Singapore Malaysia Net migration rate (per thousand)	2010 133.27 2011 26.2 16.8 5.0 0.1 0.0 4.4 1985-1990	2012 34.8 26.4 8.1 0.1 0.0 0.2 1990-1995	2013 2013 22.6 13.5 8.5 0.1 0.1 0.1 0.1 0.1 1995-2000	2014 2014 24.7 15.8 7.4 0.5 0.2 0.5 2000–2005	2015 2015 40.8 31.0 7.5 1.4 0.1 0.8 2005-2010	2016 2016 85.5 76.4 7.4 1.6 0.1 0.1 0.1 2010-2015	2017 2017 96.3 87.9 6.0 2.3 0.1 0.0 2.3 0.1 0.0	2018 1,165.2 1,134.2 30.1 0.9 0.1 0.0 2018 68.6 60.3 4.9 3.0 0.3 0.1 2020–2025	2019 2019 68.0 57.8 5.9 3.9 0.1 0.1 0.1 2025-2030
Stock of workers overseas (5 main destinations, '000s) Total Thailand Malaysia Singapore Hong Kong, China Saudi Arabia Flows of workers deployed (5 main destinations, '000s) Total Thailand Rep. of Korea Japan Singapore Malaysia Net migration rate (per thousand)	2010 133.27 2011 26.2 16.8 5.0 0.1 0.0 4.4 1985-1990 -1.87	2012 34.8 26.4 8.1 0.1 0.0 0.2 1990-1995 8.34	2013 2203 22.6 13.5 8.5 0.1 0.1 0.1 0.1 0.1 1995-2000 6.11	2014 2014 24.7 15.8 7.4 0.5 0.2 0.5 2000-2005 -0.55	2015 2015 40.8 31.0 7.5 1.4 0.1 0.8 2005-2010 -4.29	2016 85.5 76.4 7.4 1.6 0.1 0.1 2010-2015 -2.01	2017 2017 96.3 87.9 6.0 2.3 0.1 0.0 2015-2020 -1.86	2018 1,165.2 1,134.2 30.1 0.9 0.1 0.0 2018 68.6 60.3 4.9 3.0 0.3 0.1 2020–2025 -1.74	2019 2019 68.0 57.8 5.9 3.9 0.1 0.1 0.1 2025-2030 -1.64
Stock of workers overseas (5 main destinations, '000s) Total Thailand Malaysia Singapore Hong Kong, China Saudi Arabia Flows of workers deployed (5 main destinations, '000s) Total Thailand Rep. of Korea Japan Singapore Malaysia Net migration rate (per thousand) Remittance inflows (current \$ million)	2010 133.27 2011 26.2 16.8 5.0 0.1 0.0 4.4 1985–1990 -1.87 2011	2012 34.8 26.4 8.1 0.1 0.0 0.2 1990-1995 8.34 2012	2013 2203 22.6 13.5 8.5 0.1 0.1 0.1 0.1 1995-2000 6.11	2014 2014 24.7 15.8 7.4 0.5 0.2 0.5 2000-2005 -0.55 2014	2015 2015 40.8 31.0 7.5 1.4 0.1 0.1 0.8 2005-2010 -4.29 2015	2016 2016 85.5 76.4 7.4 1.6 0.1 0.1 2010-2015 -2.01	2017 2017 96.3 87.9 6.0 2.3 0.1 0.0 2015-2020 -1.86 2017	2018 1,165.2 1,134.2 30.1 0,9 0,1 0,0 2018 68.6 60.3 4,9 3.0 0.3 0.1 2020–2025 -1.74 2018	2019 2019 68.0 57.8 5.9 3.9 0.1 0.1 2025-2030 -1.64 2019e

HONG KONG, CHINA									
KEY INDICATORS									
			Population (million)	GDP per capita (constant 2010 \$)	GDP growth rate (annual, %)		Labor mark (201	et indicators 9,%)	
2009			7.0	30,711	-2.5	Employmer (15+, total)	nt / population	ratio	57.9
2019			7.5	37,957	-1.2	Unemployr	nent (% of tot	al labor force)	3.6
Immigrant Population in Hong Kong, China									
			Stock of fore	ign-born pop	oulation (0+)	Foreign-b	orn populatio	on, 15 years ol	d and over
			Total ('000s)	% of population	% women	% 15-24	% 25-64	% low- educated	% high- educated
2000			2,669	40.40	54	7.2	49.3		
2015			2,839	39.50	61	7.0	63.1		
2019			2,942	39.57	61	7.6	61.8		
Stock of foreign workers by sector		Total							
Number of foreign workers ('000s)									
% of total employment		0.044	0.040			0.045		0.047	
Stock of international students ('000s)	2010	2011	2012	2013	2014	2015	2016	2017	2018
luftering of family and the second second	10.3	18.0	21.1	26.7	30.0	32.0	32.0	34.3	37.3
Inflows of foreign workers (000s)	2010	2011	2012	2013	2014	2015	2016	40.0	2018
	21.0	50.0	20.0	20.4	51.7	54.4	50.0	40.0	41.0
Emigration from Hong Kong, China to OECD countries									
			2000				2015/16		
Stock of persons born in Hong Kong, China living in OECD	countries	Men	Women	Total		Men	Women	Total	
Emigrant population 15+ ('000s)		188.5	199.9	388.4		291.8	332.7	624.5	
Recent emigrants 15+ ('000s)		6.3	7.7	14.0		7.2	7.1	7.2	
15-24 (% of population 15+)		24.8	20.7	22.7		11.5	8.3	9.8	
25-64 (% of population 15+)		69.7	73.7	71.8		74.4	77.9	76.2	
Total emigration rates (%)		6.5	6.6	6.6		8.8	8.7	8.7	
Emigration rates of the high-educated (%)						16.7	17.0	16.9	
Legal migration flows to OECD (5 main destinations, '000s)	2010	2011	2012	2013	2014	2015	2016	2017	2018
Total	8.8	7.2	5.6	9.4	6.8	6.9	13.8	17.4	17.4
United Kingdom	3.0	2.0	0.0	3.0	0.0	0.0	5.0	8.0	8.0
Japan	1.1	0.6	0.9	0.9	1.1	1.3	1.6	2.3	2.2
United States	2.4	2.3	2.1	2.2	2.3	2.1	2.5	2.4	2.1
Australia	0.8	0.8	0.9	1.2	1.3	1.4	1.7	1.8	1.9
Canada	0.6	0.6	0.7	0.8	0.6	0.6	1.2	1.3	1.5
Stock of international students (3 main destinations, '000s)	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total					32.8	34.3	35.7	36.7	35.9
United Kingdom					12.9	14./	16.2	16./	10.6
					9.2	9.1 9.5	ŏ.ŏ о с	9.3	9.2
United states					0.0	0.5	0.5	8.0	7.5
Emigration to non-OECD destinations	2011	2012	2012	2014	2015	2014	2017	2010	2010
Total	2011	2012	2013	2014	2015	2016	2017	2018	2019
TOTAL									

Flows of workers deployed (5 main destinations, '000s)	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total									

Net migration rate (per thousand)	1985-1990	1990-1995	1995-2000	2000-2005	2005-2010	2010-2015	2015-2020	2020-2025	2025-2030
	8.04	5.30	11.84	1.94	2.61	2.12	3.99	3.15	4.62
Remittance inflows (current \$ million)	2011	2012	2013	2014	2015	2016	2017	2018	2019e
	352	367	360	372	387	399	437	425	447

INDIA									
KEY INDICATORS									
			Population (million)	GDP per capita (constant 2010 \$)	GDP growth rate (annual,%)	Labor market indicators (2019,%)			
2009			1,217.73	1,268.25	7.9	Employmer (15+, total)	nt / populatior	ratio	46.7
2019			1,366.42	2,169.14	5.0	Unemployr	nent (% of tot	al labor force)	5.4
Immigrant Population in India									
			Stock of fore	ign-born pop	oulation (0+)	Foreign-born population, 15 years old and over			
			Total ('000s)	% of population	% women	% 15-24	% 25-64	% low- educated	% high- educated
2000			6,411	0.61	48	7.1	57.8	73.1	3.0
2015			5,241	0.40	49	9.3	64.9		
2019			5,155	0.38	49	9.8	64.8		
Stock of foreign workers by sector		Total							
Number of foreign workers ('000s)									
% of total employment									
Stock of international students ('000s)	2011	2012	2013	2014	2015	2016	2017	2018	2019
	27.5	28.3	34.4	39.0	42.0	44.8	46.7	46.1	47.4
Inflows of foreign workers ('000s)	2010	2011	2012	2013	2014	2015	2016	2017	2018

Emigration from India to OECD countries									
	2000				2015/16				
Stock of persons born in India living in OECD countries	Men	Women	Total	Men	Women	Total			
Emigrant population 15+ ('000s)	1,027.6	943.0	1,970.6	2,545.0	2,280.6	4,825.6			
Recent emigrants 15+ ('000s)	264.2	226.6	490.8	27.0	26.9	26.9			
15-24 (% of population 15+)	10.2	11.0	10.6	9.3	7.6	8.5			
25-64 (% of population 15+)	80.0	77.7	78.9	79.1	78.8	79.0			
Total emigration rates (%)	0.3	0.3	0.3	0.5	0.5	0.5			
Emigration rates of the high-educated (%)	2.9	3.8	3.2	2.7	3.7	3.1			

Legal migration flows to OECD (5 main destinations, '000s)	2010	2011	2012	2013	2014	2015	2016	2017	2018
Total	262.4	247.3	230.6	242.7	288.6	272.1	277.7	311.5	354.6
Canada	34.2	27.5	30.9	33.1	38.3	39.5	39.8	51.7	70.0
United Kingdom	68.0	61.0	36.0	30.0	46.0	36.0	35.0	50.0	62.3
United States	69.2	69.0	66.4	68.5	77.9	64.1	64.7	60.4	59.8
Germany	13.2	15.4	18.1	19.5	22.4	26.1	27.7	29.5	33.7
Australia	23.5	21.9	27.8	38.1	39.6	34.7	38.6	40.0	33.1
Stock of international students (3 main destinations, '000s)	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total	181.1	186.3	181.6	168.3	149.6	172.6	223.0	262.3	290.6
United States					74.8	82.2	112.7	135.7	142.6
Australia					16.2	25.6	36.9	46.3	52.0
Canada					13.6	15.7	16.3	19.9	32.6

Emigration to non-OECD destinations									
Stock of workers overseas (5 main destinations, '000s)	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total						10,401.2		10,453.2	13,459.2
Saudi Arabia						3,050.0	3,253.9	2,812.4	2,592.2
United Arab Emirates						2,800.0	2,800.0	3,100.0	3,419.9
Kuwait						921.7	918.0	928.4	1,028.3
Oman						795.1	783.0	688.2	779.4
Qatar						600.0	697.0	691.5	745.8
Flows of workers deployed (5 main destinations, '000s)	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total	626.6	747.0	817.0	805.0	781.0	520.9	391.0	340.2	334.0
United Arab Emirates	289.3	357.5	354.2	329.9	306.0	165.4	78.6	72.4	161.1
Saudi Arabia	138.9	141.1	202.0	224.0	225.5	163.7	150.0	112.1	76.1
Kuwait	45.1	55.9	70.1	80.4	66.5	72.4	56.4	57.6	45.7
Oman	41.7	63.1	78.4	76.0	59.0	30.6	24.8	34.5	31.8
Qatar	73.8	84.4	63.4	51.3	85.0	63.2	53.3	36.0	28.4
Net migration rate (per thousand)	1985-1990	1990-1995	1995-2000	2000-2005	2005-2010	2010-2015	2015-2020	2020-2025	2025-2030
	0.01	-0.12	-0.14	-0.34	-0.45	-0.37	-0.40	-0.33	-0.30
Remittance inflows (current \$ million)	2011	2012	2013	2014	2015	2016	2017	2018	2019e
	62,499	68,821	69,970	70,389	68,910	62,744	68,967	78,790	83,131

INDONESIA					
KEY INDICATORS					
	Population (million)	GDP per capita (constant 2010 \$)	GDP growth rate (annual, %)	Labor market indicators (2019,%)	
2009	238.6	2,979	4.6	Employment / population ratio (15+, total)	64.3
2019	270.6	4,451	5.0	Unemployment (% of total labor force)	4.7
Immigrant Population in Indonesia					

			Stock of for	eign-born pop	ulation (0+)	Foreign-b	orn populatio	on, 15 years ol	ld and over
			Total ('000s)	% of population	% women	% 15-24	% 25-64	% low- educated	% high- educated
2000			290	0.1	43	20.9	42.8	33.0	46.0
2015			338	0.1	42	26.6	55.1		
2019			353	0.1	42	22.4	62.5		
Stock of foreign workers by sector, 2018		Total	Agricultu and	re, forestry fishing	Indu	ıstry	Ser	vices	
Number of foreign workers ('000s)		106.4	3	4.9	25	5.0	4	6.5	
% of total employment		0.1							
Stock of international students ('000s)	2010	2011	2012	2013	2014	2015	2016	2017	2018
	6.4		7.2			7.3	7.7	7.8	7.7
Inflows of foreign workers ('000s)	2011	2012	2013	2014	2015	2016	2017	2018	2019
	55.5	60.7	70.1	73.6	77.1	80.4	86.0	95.3	

		2000				2015/16		
S	Men	Women	Total		Men	Women	Total	
	162.3	177.3	339.6		159.8	205.2	365.0	
	22.0	26.4	48.4		15.0	14.8	14.9	
	13.7	11.3	12.4		14.7	8.9	11.4	
	65.4	61.8	63.5		57.4	62.2	60.1	
	0.2	0.2	0.2		0.2	0.2	0.2	
	3.2	4.2	3.6		0.9	1.1	1.0	
2010	2011	2012	2013	2014	2015	2016	2017	2018
25.1	28.9	30.7	36.5	35.4	34.8	38.9	39.2	47.8
8.3	8.4	9.3	9.6	11.8	14.3	16.8	19.6	23.2
5.3	8.1	8.3	11.8	10.5	8.5	9.0	6.9	10.7
1.8	2.0	2.2	2.8	2.5	2.5	2.7	2.6	3.0
0.3						1.2	1.6	2.1
2.4	2.9	2.5	2.5	2.4	2.1	2.1	1.9	1.8
2009	2010	2011	2012	2013	2014	2015	2016	2017
24.5	24.6	24.5	25.4	28.4	29.3	32.3	34.4	36.2
				9.5	9.5	10.2	10.7	11.0
				8.2	8.6	8.9	9.3	8.8
								2.4
	s 2010 25.1 8.3 5.3 1.8 0.3 2.4 2009 24.5	s Men 162.3 22.0 13.7 65.4 0.2 3.2 2010 2011 25.1 28.9 8.3 8.4 5.3 8.1 1.8 2.0 0.3 2.4 2.9 2009 2010 24.5 24.6	2000 Men Women 162.3 177.3 22.0 26.4 13.7 11.3 65.4 61.8 0.2 0.2 3.2 4.2 2010 2011 2012 25.1 28.9 30.7 8.3 8.4 9.3 5.3 8.1 8.3 1.8 2.0 2.2 0.3 2.4 2.9 2.5 2009 2010 2011 24.5 24.6 24.5	ZO100 Men Women Total 162.3 177.3 339.6 22.0 26.4 48.4 13.7 11.3 12.4 65.4 61.8 63.5 0.2 0.2 0.2 3.2 4.2 36 Z010 Z011 Z012 Z013 25.1 28.9 30.7 36.5 8.3 8.4 9.3 9.6 5.3 8.1 8.3 11.8 1.8 2.0 2.2 2.8 0.3 2.4 2.9 2.5 2.5 2009 2010 2011 2012 24.5 24.6 24.5 25.4	Nem 2000 Men Women Total 162.3 177.3 339.6 22.0 26.4 48.4 13.7 11.3 12.4 65.4 61.8 63.5 0.2 0.2 0.2 3.2 4.2 3.6 2010 2011 2012 2013 2014 25.1 28.9 30.7 36.5 35.4 8.3 8.4 9.3 9.6 11.8 5.3 8.1 8.3 11.8 10.5 1.8 2.0 2.2 2.8 2.5 0.3 2.4 2.9 2.5 2.5 2.4 2009 2010 2011 2012 2013 24.5 24.6 24.5 25.4 28.4 9.5 8.2 24.5 24.6 24.5 25.4 28.4 <td>Nem 2000 Men Women Total 162.3 177.3 339.6 22.0 26.4 48.4 13.7 11.3 12.4 13.7 11.3 12.4 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 3.3 4.2 3.6 0.2 0.2 0.2 3.2 4.2 3.6 0.2 0.2 0.2 3.3 8.4 9.3 9.6 1.8 2.00 2.2.2 2.8 2.3 2.2 2.8 2.5 3.3 8.1 8.3 11.8 14.3 5.3 8.1 8.3 11.8 10.5 8.5 1.8 2.0 2.2 2.8 2.5 2.5 0.3 2.4 2.9 2.5 2.5 <td< td=""><td>Nen Women Total Men Women 162.3 177.3 339.6 159.8 205.2 22.0 26.4 48.4 15.0 14.8 13.7 11.3 12.4 14.7 8.9 65.4 61.8 63.5 57.4 62.2 0.2 0.2 0.2 0.2 0.2 0.2 3.2 4.2 3.6 0.9 1.1 2010 2011 2012 2013 2014 2015 2016 25.1 28.9 30.7 36.5 35.4 34.8 38.9 8.3 8.4 9.3 9.6 11.8 14.3 16.8 5.3 8.1 8.3 11.8 10.5 8.5 9.0 1.8 2.0 2.2 2.8 2.5 2.5 2.7 0.3 1.2 2.4 2.9 2.5 2.5 2.4 2.1 2.1 2.1</td><td>Nem 2000 Men Women Total 162.3 177.3 339.6 159.8 205.2 365.0 22.0 26.4 48.4 15.0 14.8 14.9 13.7 11.3 12.4 14.7 8.9 11.4 65.4 61.8 63.5 57.4 62.2 60.1 0.2</td></td<></td>	Nem 2000 Men Women Total 162.3 177.3 339.6 22.0 26.4 48.4 13.7 11.3 12.4 13.7 11.3 12.4 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 3.3 4.2 3.6 0.2 0.2 0.2 3.2 4.2 3.6 0.2 0.2 0.2 3.3 8.4 9.3 9.6 1.8 2.00 2.2.2 2.8 2.3 2.2 2.8 2.5 3.3 8.1 8.3 11.8 14.3 5.3 8.1 8.3 11.8 10.5 8.5 1.8 2.0 2.2 2.8 2.5 2.5 0.3 2.4 2.9 2.5 2.5 <td< td=""><td>Nen Women Total Men Women 162.3 177.3 339.6 159.8 205.2 22.0 26.4 48.4 15.0 14.8 13.7 11.3 12.4 14.7 8.9 65.4 61.8 63.5 57.4 62.2 0.2 0.2 0.2 0.2 0.2 0.2 3.2 4.2 3.6 0.9 1.1 2010 2011 2012 2013 2014 2015 2016 25.1 28.9 30.7 36.5 35.4 34.8 38.9 8.3 8.4 9.3 9.6 11.8 14.3 16.8 5.3 8.1 8.3 11.8 10.5 8.5 9.0 1.8 2.0 2.2 2.8 2.5 2.5 2.7 0.3 1.2 2.4 2.9 2.5 2.5 2.4 2.1 2.1 2.1</td><td>Nem 2000 Men Women Total 162.3 177.3 339.6 159.8 205.2 365.0 22.0 26.4 48.4 15.0 14.8 14.9 13.7 11.3 12.4 14.7 8.9 11.4 65.4 61.8 63.5 57.4 62.2 60.1 0.2</td></td<>	Nen Women Total Men Women 162.3 177.3 339.6 159.8 205.2 22.0 26.4 48.4 15.0 14.8 13.7 11.3 12.4 14.7 8.9 65.4 61.8 63.5 57.4 62.2 0.2 0.2 0.2 0.2 0.2 0.2 3.2 4.2 3.6 0.9 1.1 2010 2011 2012 2013 2014 2015 2016 25.1 28.9 30.7 36.5 35.4 34.8 38.9 8.3 8.4 9.3 9.6 11.8 14.3 16.8 5.3 8.1 8.3 11.8 10.5 8.5 9.0 1.8 2.0 2.2 2.8 2.5 2.5 2.7 0.3 1.2 2.4 2.9 2.5 2.5 2.4 2.1 2.1 2.1	Nem 2000 Men Women Total 162.3 177.3 339.6 159.8 205.2 365.0 22.0 26.4 48.4 15.0 14.8 14.9 13.7 11.3 12.4 14.7 8.9 11.4 65.4 61.8 63.5 57.4 62.2 60.1 0.2

Emigration to non-OECD destinations									
Stock of workers overseas (5 main destinations, '000s)	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total	3,256.0			3,256.0	4,300.0				
Saudi Arabia	1,500.0			1,500.0					
Malaysia	917.9			917.9	17.8	20.0			
Taipei,China	146.2			146.2					
Hong Kong, China	140.6			140.6					
Singapore	106.0			106.0					
Flows of workers deployed (5 main destinations, '000s)	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total	586.8	494.6	512.2	429.9	275.7	234.5	262.9	283.6	276.6
Malaysia	134.1	134.0	150.2	127.9	97.7	87.6	89.0	90.7	79.7
Taipei,China	78.9	81.1	83.5	82.7	75.3	77.1	62.8	72.4	79.6
Hong Kong, China	50.3	45.5	41.8	35.1	15.3	14.4	69.2	73.9	70.8
Singapore	47.8	41.6	34.7	31.7	20.9	17.7	13.4	18.3	19.4
Rep. of Korea	11.4	13.6	15.4	11.8	5.5	5.9	3.7	6.9	6.2
Net migration rate (per thousand)	1985-1990	1990-1995	1995-2000	2000-2005	2005-2010	2010-2015	2015-2020	2020-2025	2025-2030
	0.30	-0.04	-0.07	-1.05	-1.14	-0.36	-0.37	-0.38	-0.34
Remittance inflows (current \$ million)	2011	2012	2013	2014	2015	2016	2017	2018	2019e
	6,924	7,212	7,614	8,551	9,659	8,907	8,990	11,215	11,667

JAPAN					
KEY INDICATORS					
	Population (million)	GDP per capita (constant 2010 \$)	GDP growth rate (annual, %)	Labor market indicators (2019,%)	
2009	128.0	42,725	-5.4	Employment / population ratio (15+, Total)	60.3
2019	126.3	49,188	0.7	Unemployment (% of total labor force)	2.4

8									
			Stock of for	, 15 years old and over					
			Total ('000s)	% of population	% women	% 15-24	% 25-64	% low- educated	% high- educated
2000			1,686	1.32	53	15.7	66.6		
2015			2,232	1.74	53	15.7	67.4		
2019			2,499	1.97	52	9.3	74.4		
Stock of foreign workers by sector, 2019	Total	Construction	Manufacturing	Information and communications	Wholesale, Retail	Hospitality, Restaurants	Education	Health and welfare	Services, N.E.C.
Number of foreign workers ('000s)	1,658.8	93.2	483.3	67.5	212.5	206.5	70.9	34.3	266.5
% of total employment	2.4	1.9	4.7	3.0	2.0	4.6	2.2	0.4	5.9
Stock of international students ('000s)	2010	2011	2012	2013	2014	2015	2016	2017	2018
	141.6	151.5	150.6	135.8	132.7	132.0	143.5	164.3	182.7
Inflows of foreign workers ('000s)	2011	2012	2013	2014	2015	2016	2017	2018	2019
	130.9	144.1	142.0	160.3	190.0	208.8	237.5	278.6	306.8

Emigration from Japan to OECD countries									
			2000				2015/16		
Stock of persons born in Japan living in OECD countries		Men	Women	Total		Men	Women	Total	
Emigrant population 15+ ('000s)		215.6	348.7	564.3		266.5	437.5	704.0	
Recent emigrants 15+ ('000s)		68.4	93.5	161.9		25.9	18.0	21.1	
15-24 (% of population 15+)		15.0	12.7	13.6		13.3	8.3	10.2	
25-64 (% of population 15+)		81.0	73.3	76.2		74.8	73.1	73.8	
Total emigration rates (%)		0.4	0.6	0.5		0.5	0.8	0.6	
Emigration rates of the high-educated (%)		0.7	1.0	0.9		0.8	1.2	1.0	
Legal migration flows to OECD (5 main destinations, '000s)	2010	2011	2012	2013	2014	2015	2016	2017	2018
Total	32.6	34.2	36.2	36.6	33.4	36.5	34.9	29.5	29.0
Germany	5.6	6.8	6.6	6.8	6.7	6.9	7.0	6.9	7.1
Rep. of Korea	4.7	5.5	5.8	5.9	4.7	4.6	4.7	4.5	5.2
United States	6.3	6.2	6.1	5.9	5.5	5.4	5.2	4.6	4.3
New Zealand	1.3	1.5	1.4	1.4	1.5	1.6	1.6	1.5	1.7
France	1.5	1.6	1.5	1.6	1.6	1.6	1.5	1.6	1.6
Stock of international students (3 main destinations, '000s)	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total					29.2	29.2	28.7	29.2	29.0
United States					16.0	15.5	15.1	15.4	14.8
United Kingdom					3.1	3.1	3.1	2.9	2.8
Germany					1.7	1.8	1.8	1.8	1.8
Emigration to non-OECD destinations									
Stock of workers overseas (5 main destinations, '000s)	2010	2011	2012	2013	2014	2015	2016	2017	2018
Total									

Flows of workers deployed (5 main destinations, '000s)	2010	2011	2012	2013	2014	2015	2016	2017	2018
Total									

Net migration rate (per thousand)	1985-90	1990-95	1995-00	2000-05	2005-10	2010-15	2015-20	2020-25	2025-30
	-0.48	0.07	-0.16	0.26	0.43	0.56	0.56	0.52	0.38
Remittance inflows (current \$ million)	2011	2012	2013	2014	2015	2016	2017	2018	2019e
	2,132	2,540	2,364	3,734	3,325	3,830	4,443	4,366	4,380

LAO PEOPLE'S DEMOCRATIC REPUBLIC KEY INDICATORS GDP per GDP growth rate (annual, %) capita (constant 2010 \$) Population (mllion) Labor market indicators (2019, %) 2009 77.7 6.0 1,010 7.8 Employment / population ratio (15+, total) 2019 7.1 1,789 6.5 Unemployment (% of total labor force) 0.6 Immi t Population in Lao People's Democratic Republ Stock of foreign-born population (0+) Foreign-born population, 15 years old and over % of population % low-% women % 15-24 % 25-64 educated **Total** ('000s) % high-educated

			· · ·						
2000			22	0.41	47	19.7	55.9	49.5	8.2
2015			46	0.68	36	15.3	71.5		
2019			48	0.67	36	11.9	75.1		
Stock of foreign workers by sector, 2018	Total	Agricultu	re, forestry, a	nd fishing	Indu	istry	Serv	vices	
Number of foreign workers ('000s)	22.3		2.3		12	.0	7.	.9	
% of total employment									
Stock of international students ('000s)	2010	2011	2012	2013	2014	2015	2016	2017	2018
	0.7	0.8	0.6	0.3	0.5	0.3	0.5	0.5	0.5
Inflows of foreign workers ('000s)	2010	2011	2012	2013	2014	2015	2016	2017	2018
							6.9		

Emigration from Lao People's Democratic Republic to OECD countries										
Stock of persons born in Lao People's Democratic Republic			2000				2015/16			
living in OECD countries		Men	Women	Total		Men	Women	Total		
Emigrant population 15+ ('000s)		132.8	131.4	264.1		122.3	131.7	253.9		
Recent emigrants 15+ ('000s)		4.4	5.8	10.2		2.4	6.0	4.2		
15-24 (% of population 15+)		13.8	13.7	13.8		2.4	3.2	2.8		
25-64 (% of population 15+)		81.2	79.0	80.1		84.6	82.2	83.4		
Total emigration rates (%)		8.3	8.1	8.2		5.1	5.4	5.2		
Emigration rates of the high-educated (%)		23.8	29.2	25.9		9.5	13.4	11.1		
Legal migration flows to OECD (5 main destinations, '000s)	2010	2011	2012	2013	2014	2015	2016	2017	2018	
Total	2.5	2.5	2.5	2.5	2.2	2.7	2.6	2.6	2.8	
Japan	0.9	0.8	0.8	0.9	0.7	1.2	1.2	1.3	1.2	
United States	1.2	1.0	0.9	0.9	0.8	0.9	0.9	0.7	0.9	
Rep. of Korea	0.1	0.2	0.2	0.3	0.3	0.2	0.2	0.3	0.4	
France	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
Australia	0.1	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
Stock of international students (3 main destinations, '000s)	2009	2010	2011	2012	2013	2014	2015	2016	2017	
Total	0.69	0.75	0.73	0.73	0.72	0.76	0.75	0.85	0.93	
Australia					0.19	0.22	0.21	0.23	0.25	
Japan					0.22	0.20	0.19	0.19	0.20	
Rep. of Korea					0.08	0.07	0.07	0.08	0.09	
Emigration to non-OECD destinations										
Stock of workers overseas (5 main destinations, '000s)	2011	2012	2013	2014	2015	2016	2017	2018	2019	
Total							110.0			

Flows of workers deployed (5 main destinations, '000s)	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total	33.6	7.4	22.5	8.3	50.7	58.3	49.4	120.5	
Thailand	8.4		13.6					89.8	
Rep. of Korea								0.1	
Japan								0.1	

Net migration rate (per thousand)	1985-1990	1990-1995	1995-2000	2000-2005	2005-2010	2010-2015	2015-2020	2020-2025	2025-2030
	0.01	-2.66	-5.30	-5.35	-3.68	-3.46	-2.10	-1.95	-1.84
Remittance inflows (current \$ million)	2011	2012	2013	2014	2015	2016	2017	2018	2019e
	110	203	170	188	189	189	243	239	285

MALAYSIA					
KEY INDICATORS					
	Population (million)	GDP per capita (constant 2010 \$)	GDP growth rate (annual, %)	Labor market indicators (2019,%)	
2009	27.7	8,559	-1.5	Employment / population ratio (15+, total)	62.2
2019	31.9	12,478	4.3	Unemployment (% of total labor force)	3.4

initigrant i opulation in malaysia									
			Stock of for	eign-born pop	ulation (0+)	Foreign-l	oorn populatio	n, 15 years old	l and over
			Total ('000s)	% of population	% women	% 15-24	% 25-64	% low- educated	% high- educated
2000			1,464	6.31	44	22.6	54.6	91.3	5.9
2015			2,417	10.84	39	26.9	62.9		
2019			3,430	10.74	39	26.6	62.4		
Stock of foreign workers by sector, 2019	Total	Agriculture, forestry & fishing	Mining and quarrying	Manufacturing	Construction	Wholesale, retail; vehicle repair	Accomodations, food and beverage	Administrative and support services	Activities as households as employers
Number of foreign workers ('000s)	2,236.6	491.3	5.1	575.8	287.2	272.6	253.0	122.3	89.4
% of total employment	14.8	31.9	5.6	21.5	22.5	10.5	16.3	15.2	85.7
Stock of international students ('000s)	2010	2011	2012	2013	2014	2015	2016	2017	2018
	64.7	63.6	56.2		99.6	111.4	124.1	100.8	122.8
Inflows of foreign workers ('000s)	2010	2011	2012	2013	2014	2015	2016	2017	2018
	62.7	79.3	69.8	79.8	77.8	70.7	45.6		40.3

Emigration from Malaysia to OECD countries									
			2000				2015/16		
Stock of persons born in Malaysia living in OECD countries		Men	Women	Total		Men	Women	Total	
Emigrant population 15+ ('000s)		98.6	115.7	214.3		152.6	179.2	331.8	
Recent emigrants 15+ ('000s)		16.9	18.8	35.7		23.1	20.6	21.8	
15-24 (% of population 15+)		23.9	19.0	21.2		17.9	14.7	16.2	
25-64 (% of population 15+)		71.2	75.3	73.5		69.3	70.4	69.9	
Total emigration rates (%)		1.2	1.5	1.4		1.3	1.6	1.5	
Emigration rates of the high-educated (%)		5.7	6.7	6.2		4.5	5.6	5.0	
Legal migration flows to OECD (5 main destinations, '000s)	2010	2011	2012	2013	2014	2015	2016	2017	2018
Total	22.8	18.1	21.1	23.9	20.4	22.3	16.0	19.6	18.5
Rep. of Korea	0.6	0.6	0.7	1.0	1.2	1.3	1.5	3.8	4.1
Australia	4.9	4.9	5.4	5.6	4.5	4.0	4.1	4.2	3.4
United States	1.7	2.3	2.6	2.5	2.6	2.7	3.4	4.1	3.1
Japan	2.3	2.2	2.5	2.1	2.2	2.3	2.5	2.7	2.9
New Zealand	1.6	1.7	1.5	1.6	1.6	1.7	1.9	2.0	2.0
Stock of international students (3 main destinations, '000s)	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total	43.3	46.6	46.7	46.1	45.7	47.7	49.3	48.0	50.1
United Kingdom					13.3	15.6	17.0	17.4	16.4
Australia					15.5	15.4	15.0	15.3	15.1
United States					7.4	7.3	7.9	8.4	8.5
Emigration to non-OECD destinations									
Stock of workers overseas (5 main destinations, '000s)	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total									

Flows of workers deployed (5 main destinations, '000s)	2011	2012	2013	2014	2015	2016	2017	2018	2019	
Total										

Net migration rate (per thousand)	1985-1990	1990-1995	1995-2000	2000-2005	2005-2010	2010-2015	2015-2020	2020-2025	2025-2030
	5.06	3.04	4.73	5.49	5.65	1.71	1.60	1.50	1.32
Remittance inflows (current \$ million)	2011	2012	2013	2014	2015	2016	2017	2018	2019e
	1,211	1,294	1,423	1,580	1,644	1,604	1,649	1,686	1,659

MONGOLIA					
KEY INDICATORS					
	Population (million)	GDP per capita (constant 2010 \$)	GDP growth rate (annual, %)	Labor market indicators (2019,%)	
2009	2.7	2,528	-1.3	Employment / population ratio (15+, total)	56.1
2019	3.2	4,350	5.1	Unemployment (% of total labor force)	6.0
Immiddent Denulation in Mandalia					

			Stock of for	eign-born poj	oulation (0+)	Foreign-born population, 15 years old and over				
			Total ('000s)	% of population	% women	% 15-24	% 25-64	% low- educated	% high- educated	
2000			8	0.34	44	14.1	72.8			
2015			20	0.66	33	8.9	71.4			
2019			21	0.66	33	11.8	69.8			
Stock of foreign workers by sector, 2019	Total	Mining and quarrying	Education	Wholesale, retail; vehicle repair	Manufacturing	Administrative and support services	Construction	Agriculture		
Number of foreign workers ('000s)	4.6	1.8	1.0	0.8	0.3	0.2	0.2	4.6		
% of total employment	0.39	3.3	1.0	0.5	0.3	0.8	0.3	0.01		
Stock of international students ('000s)	2010	2011	2012	2013	2014	2015	2016	2017	2018	
	1.0	1.0	1.1	1.1	1.1	1.2	1.5	1.5	1.6	
Inflows of foreign workers ('000s)	2010	2011	2012	2013	2014	2015	2016	2017	2018	

Emigration from Mongolia to OECD countries									
			2000				2015/16		
Stock of persons born in Mongolia living in OECD countries	;	Men	Women	Total		Men	Women	Total	
Emigrant population 15+ ('000s)		1.8	2.6	4.4		15.6	24.0	39.7	
Recent emigrants 15+ ('000s)						55.1	55.6	55.4	
15-24 (% of population 15+)				27.2		27.6	18.4	22.1	
25-64 (% of population 15+)				70.3		71.5	80.9	77.2	
Total emigration rates (%)			0.3	0.3		1.5	2.1	1.8	
Emigration rates of the high-educated (%)			1.5	1.3		2.8	3.0	2.9	
Legal migration flows to OECD (5 main destinations, '000s)	2010	2011	2012	2013	2014	2015	2016	2017	2018
Total	9.9	8.8	10.5	8.9	9.3	14.8	14.9	20.1	20.0
Rep. of Korea	5.4	4.3	5.7	4.3	4.0	8.3	8.2	11.8	10.2
Japan	1.2	1.3	1.5	1.5	2.0	2.3	2.5	3.2	3.7
Czech Republic	0.3	0.2	0.3	0.1	0.2	0.6	0.7	1.2	1.5
Sweden	0.4	0.6	0.5	0.4	0.4	0.3	0.3	0.6	0.9
Germany	0.5	0.5	0.5	0.6	1.0	1.3	0.8	0.8	0.8
Stock of international students (3 main destinations, '000s)	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total				6.6	6.7	7.5	7.4	7.9	8.8
Rep. of Korea					2.5	2.2	2.1	2.3	2.7
United States					1.4	1.5	1.5	1.4	1.3
Japan					1.1	1.0	1.1	1.2	1.4
Emigration to non-OECD destinations									
Stock of workers overseas (5 main destinations, '000s)	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total									

Flows of workers deployed (5 main destinations, '000s)	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total									

Net migration rate (per thousand)	1985-1990	1990-1995	1995-2000	2000-2005	2005-2010	2010-2015	2015-2020	2020-2025	2025-2030
	0.00	-7.89	-4.47	-1.22	-0.84	-0.30	-0.27	-0.25	-0.24
Remittance inflows (current \$ million)	2011	2012	2013	2014	2015	2016	2017	2018	2019e
	250	324	257	255	261	260	273	441	575

MYANMAR									
KEY INDICATORS									
			Population (million)	GDP per capita (constant 2010 \$)	GDP growth rate (annual, %)	Labor market indicators (2019, %)			
2009			46.7	342	13.7	Employmer (15+, total)	ratio	59.2	
2019			54.0	1,609	2.9	Unemployn	nent (% of tot	al labor force)	1.0
Immigrant Population in Mongolia									
			Stock of fore	ign-born pop	oulation (0+)	Foreign-b	orn populatio	on, 15 years old	d and over
			Total ('000s)	% of population	% women	% 15-24	% 25-64	% low- educated	% high- educated
2000			98.0	0.20	47	25.1	70.0		
2015			73.3	0.10	45	21.2	71.6		
2019			76.0	0.10	45	19.7	72.6		
Stock of foreign workers by sector	Total								
Number of foreign workers ('000s) % of total employment									
Stock of international students (*000s)	2011	2012	2013	2014	2015	2016	2017	2018	2019
Inflows of foreign workers (*000s)	2010	2011	2012	2013	2014	2015	2016	2017	2018

Emigration from Mongolia to OECD countries									
			2000		_		2015/16		
Stock of persons born in Mongolia living in OECD countries	;	Men	Women	Total		Men	Women	Total	
Emigrant population 15+ ('000s)						106.5	113.0	219.6	
Recent emigrants 15+ ('000s)						29.8	31.6	30.7	
15-24 (% of population 15+)						15.3	13.8	14.5	
25-64 (% of population 15+)						74.0	74.3	74.2	
Total emigration rates (%)						0.6	0.6	0.6	
Emigration rates of the high-educated (%)						1.8	1.5	1.6	
Legal migration flows to OECD (5 main destinations, '000s)	2010	2011	2012	2013	2014	2015	2016	2017	2018
Total	19.5	23.6	27.3	23.0	23.2	27.2	29.5	30.1	26.8
United States	12.9	16.5	17.4	12.6	11.1	12.8	13.1	12.9	8.2
Japan	1.1	1.1	1.5	2.1	3.3	5.2	6.1	7.6	8.1
Rep. of Korea	0.6	2.6	4.1	4.6	5.1	5.2	6.7	6.3	7.4
Australia	2.6	1.6	2.5	2.3	2.4	2.5	2.3	2.2	1.9

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2013

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0.2

2015

0.2

2016

0.3

2017

0.2

0.3

2010

Canada

Emigration to non-OECD destinations									
Stock of workers overseas (5 main destinations, '000s)	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total				2,021.9					
Thailand				1,418.5					
Malaysia				304.0					
Singapore				79.7					
People's Republic of China				92.3					
Japan				7.6					
Flows of workers deployed (5 main destinations, '000s)	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total							161.9	234.0	330.3
Thailand							148.9	198.0	238.1
Malaysia							3.3	24.8	78.8
Rep. of Korea							5.7	6.1	4.8
Singapore							0.4	0.5	0.5
Japan							3.3	3.9	6.7
Net migration rate (per thousand)	1985-1990	1990-1995	1995-2000	2000-2005	2005-2010	2010-2015	2015-2020	2020-2025	2025-2030

Remittance inflows (current \$ million)	2011	2012	2013	2014	2015	2016	2017	2018	2019e

New Zealand Stock of international students (3 main destinations, '000s) 2009

Total

United States

Australia

NEPAL									
KEY INDICATORS									
				GDP per	GDP				
			Denviletien	capita	growth		Laboration		
			(million)	(constant 2010 \$)	rate (annual %)		Labor mark (201	9.%)	
2009			26.9	588	4.5	Employmer	nt / population	ratio	82.6
2019			28.6	859	70	Linemployr	nent (% of tot	al labor force)	14
Immigrant Population in Nenal			20.0	037	7.0	Onemployi		anabor force)	1.7
			Stock of fore	oign-horn por	(0+)	Foreign-h	orn populatio	n 15 years old	d and over
			Total	% of		roreight b	ompopulatio	% low-	% high-
			('000s)	population	% women	% 15-24	% 25-64	educated	educated
2000			718	3.00	66	20.4	59.5		
2015			509	1.99	69	16.1	69.8		
2019			491	1.72	70	12.8	74.7		
Stock of foreign workers by sector		Total							
Number of foreign workers ('000s)									
% of total employment									
Stock of international students ('000s)	2010	2011	2012	2013	2014	2015	2016	2017	2018
		0.1							
Inflows of foreign workers ('000s)	2010	2011	2012	2013	2014	2015	2016	2017	2018
• • •									
Emigration from Nepal to OECD countries									
			2000				2015/16		
Stock of persons born in Nepal living in OECD countries		Men	Women	Total		Men	Women	Total	
Emigrant population 15+ ('000s)				23.9		171.6	136.0	307.6	
Recent emigrants 15+ (*000s)				8.7		36.8	41.2	38.8	
15-24 (% of population 15+)				24.0		25.5	24.0	24.8	
25-64 (% of population 15+)				75.0		72.5	73.6	73.0	
Total emigration rates (%)				0.2		1.6	1.2	1.4	
Emigration rates of the high-educated (%)				2.2		12.3	20.8	15.0	
()									
Legal migration flows to OECD (5 main destinations, '000s)	2010	2011	2012	2013	2014	2015	2016	2017	2018
Total	25.0	29.9	33.5	38.7	42.8	46.8	48.9	49.2	51.4
Japan	2.9	3.5	4.8	8.3	11.5	13.4	14.1	14.5	13.0
United States	7.1	10.2	11.3	13.0	12.4	12.9	12.9	11.6	12.0
Rep. of Korea	2.7	4.3	6.9	6.0	6.8	6.5	8.7	8.6	9.8
Portugal	0.2	0.4	0.5	0.8	0.9	1.4	1.3	1.7	4.2
Australia	1.3	2.1	2.5	4.0	4.4	4.2	5.1	4.4	3.0
Stock of international students (3 main destinations '000s)	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total	2007	2010	2011	2012	241	261	30.8	38.9	521
Australia					72	9.2	11.8	14.7	211
United States					7.∠ 8.7	76	70	0.0	12 2
lanan					2.7	7.0	7.7 E 1	9.7 Q /	12.2
Japan					2.4	3.1	J.I	0.4	12.0
Emigration to non-OECD destinations									
Stock of workers overseas (5 main destinations (000s)	2011	2012	2012	2014	2015	2016	2017	2019	2019
Stock of workers overseas (5 main destinations, 000s)	2011	2012	2015	2014	2015	2010	2017	2010	2019

Total

Flows of workers deployed (5 main destinations, '000s)	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020
Total	384.7	450.9	519.6	499.1	403.7	382.9	354.1	236.2	190.5
Malaysia	34.5	58.6	55.4	53.1	52.1	57.9	60.2	62.8	52.1
Qatar	68.1	96.9	86.6	96.8	134.8	72.9	41.0	46.1	39.3
Saudi Arabia	96.3	158.7	210.0	196.2	59.0	95.2	104.2	10.0	39.2
United Arab Emirates	44.9	103.9	128.6	124.0	127.9	121.1	103.2	75.0	29.8
Kuwait	9.2	17.4	20.2	9.6	9.9	13.1	17.6	16.0	9.0
Net migration rate (per thousand)	1985-1990	1990-1995	1995-2000	2000-2005	2005-2010	2010-2015	2015-2020	2020-2025	2025-2030
	-2.42	0.75	-4.08	-6.22	-7.37	-15.11	1.49	5.07	0.44
Remittance inflows (current \$ million)	2011	2012	2013	2014	2015	2016	2017	2018	2019e
	4,217	4,793	5,584	5,889	6,730	6,612	6,928	8,294	8,128

PAKISTAN										
KEY INDICATORS										
			Population (million)	GDP per capita (constant 2010 \$)	GDP growth rate (annual, %)		Labor market indicators (2019,%) Employment / population ratio			
2009			175.5	993	2.8	Employmer (15+, total)	nt / population	n ratio	50.2	
2019			216.6	1,185	1.0	Unemployn	nent (% of tot	al labor force)	4.5	
Immigrant Population in Pakistan										
			Stock of fore	eign-born pop	oulation (0+)	Foreign-b	orn populatio	on, 15 years ol	d and over	
			Total ('000s)	% of population	% women	% 15-24	% 25-64	% low- educated	% high- educated	
2000			4,182	2.94	46	7.7	60.4			
2015			3,507	1.76	47	7.0	60.0			
2019			3,258	1.50	47	7.8	65.8			
Stock of foreign workers by sector		Total								
Number of foreign workers ('000s)										
% of total employment										
Stock of international students ('000s)	2003		2012	2013	2014	2015	2016	2017	2018	
	0.4									
Inflows of foreign workers ('000s)	2010	2011	2012	2013	2014	2015	2016	2017	2018	

Emigration from Pakistan to OECD countries									
			2000				2015/16		
Stock of persons born in Pakistan living in OECD countries		Men	Women	Total		Men	Women	Total	
Emigrant population 15+ ('000s)		375.0	293.7	668.7		806.7	620.5	1,427.2	
Recent emigrants 15+ ('000s)		79.8	60.4	140.2		20.4	19.6	20.0	
15-24 (% of population 15+)		13.9	15.4	14.5		12.4	11.8	12.1	
25-64 (% of population 15+)		80.3	78.2	79.3		79.9	79.9	79.9	
Total emigration rates (%)		0.9	0.7	0.8		1.2	1.0	1.1	
Emigration rates of the highly educated (%)		3.1	3.6	3.3		7.3	9.2	8.0	
Legal migration flows to OECD (5 main destinations, '000s)	2010	2011	2012	2013	2014	2015	2016	2017	2018
Total	95.7	101.7	83.5	72.4	79.4	99.4	96.1	92.5	91.8
United States	18.3	15.5	14.7	13.3	18.6	18.1	19.3	17.4	15.8
Italy	10.8	7.5	8.8	7.8	9.6	11.4	14.7	15.0	13.2
United Kingdom	30.0	43.0	19.0	10.0	11.0	8.0	11.0	15.0	9.9
Germany	3.3	5.4	6.5	8.0	9.5	24.5	12.2	9.0	9.8
Canada	6.8	7.5	11.2	12.6	9.1	11.3	11.3	7.7	9.5
Stock of international students (3 main destinations, '000s)	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total	23.2	25.8	27.3	28.1	26.1	28.7	31.4	35.0	36.8
Australia					4.8	6.3	8.2	10.0	10.1
United States					4.6	4.8	5.2	6.1	6.9
United Kingdom					7.2	6.6	6.1	5.5	5.2

Emigration to non-OECD destinations									
Stock of workers overseas (5 main destinations, '000s)	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total	5,811.2	6,449.8	7,072.5	7,825.0	8,771.6	9,610.9	10,107.2	10,489.6	11,114.8
Saudi Arabia	2,965.2	3,323.8	3,594.3	3,906.8	4,429.5	4,892.1	5,035.5	5,136.4	5,469.1
United Arab Emirates	1,751.9	1,934.6	2,207.8	2,558.3	2,885.3	3,180.9	3,456.4	3,665.0	3,876.2
Oman	448.0	517.4	565.2	605.0	652.7	697.8	740.2	767.4	795.8
Kuwait	180.9	180.9	181.2	181.3	181.5	182.2	183.0	183.5	183.6
Qatar	87.2	94.5	102.6	112.6	125.4	135.1	146.7	167.7	187.0
Flows of workers deployed (5 main destinations, '000s)	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total	456.9	638.6	622.7	752.5	946.6	839.4	496.3	382.4	625.2
Saudi Arabia	222.3	358.6	270.5	312.5	522.8	462.6	143.4	100.9	332.7
United Arab Emirates	156.4	182.6	273.2	350.5	327.0	295.6	275.4	208.6	211.2
Oman	53.5	69.4	47.8	39.8	47.8	45.1	42.4	27.2	28.4
Qatar	5.1	7.3	8.1	10.0	12.7	9.7	11.6	21.0	19.3
Malaysia	2.1	1.3	2.0	20.6	20.2	10.6	7.2	9.9	11.3
Net migration rate (per thousand)	1985-1990	1990-1995	1995-2000	2000-2005	2005-2010	2010-2015	2015-2020	2020-2025	2025-2030
	0.28	-1.77	0.71	-0.86	-0.40	-1.14	-1.11	-0.87	-0.70

Remittance inflows (current \$ million)	2011	2012	2013	2014	2015	2016	2017	2018	2019e
	12,263	14,007	14,629	17,244	19,306	19,808	19,807	21,193	22,507

PEOPLE'S REPUBLIC OF CHINA									
KEY INDICATORS									
			Population (million)	GDP per capita (constant 2010 \$)	GDP growth rate (annual, %)		Labor mark (201	et indicators 9, %)	
2009			1,331.3	4,133	9.4	Employmen (15+, Total)	it / population	ratio	65.1
2019			1,397.7	8,254	6.1	Unemployn	nent (% of tot	al labor force)	4.3
Immigrant Population in People's Republic of China									
			Stock of fore	ign-born pop	oulation (0+)	Foreign-b	orn populatio	on, 15 years ol	d and over
			Total ('000s)	% of population	% women	% 15-24	% 25-64	% low- educated	% high- educated
2000			508	0.04	50	13.5	61.9	n.a.	n.a.
2015			978	0.07	39	14.1	59.3		
2019			1,031	0.07	39	14.5	60.1		
Stock of foreign workers by sector, 2018		Total							
Number of foreign workers ('000s)		950.0							
% of total employment									
Stock of international students ('000s)	2010	2011	2012	2013	2014	2015	2016	2017	2018
	71.7	79.6	89.0	96.4	108.2	123.1	137.5	157.1	178.3
Inflows of foreign workers ('000s)	2010	2011	2012	2013	2014	2015	2016	2017	2018
									336.0
Emigration from Poonto's Popublic of Chipa to OECD countrie	-								
Emigration non reopies Republic of China to OLOD Countrie	5		2000				2015/16		
Stock of persons born in People's Republic of China living in OECD countries		Men	Women	Total		Men	Women	Total	•
Emigrant population 15+ ('000s)		976.3	1.089.8	2.066.1		2.057.5	2.562.6	4.620.1	
Recent emigrants 15+ ('000s)		217.0	250.7	467.7		28.0	27.5	27.8	
15–24 (% of population 15+)		12.3	11.4	11.8		17.4	16.2	16.8	
25-64 (% of population 15+)		73.1	73.4	73.3		68.6	70.9	69.9	
Total emigration rates (%)		0.2	0.2	0.2		0.4	0.5	0.4	
Emigration rates of the high-educated (%)		1.5	2.3	1.8		1.2	1.8	1.5	
Legal migration flows to OECD (5 main destinations, '000s)	2010	2011	2012	2013	2014	2015	2016	2017	2018
Total	504.1	526.9	504.9	549.1	556.1	545.3	551.6	560.9	564.6
Rep. of Korea	155.3	149.2	127.3	178.6	192.9	177.0	165.5	156.8	160.2
									109.5
Japan	107.9	100.4	107.0	93.0	98.6	100.6	103.3	109.8	114.9
Japan United States	107.9 70.9	100.4 87.0	107.0 81.8	93.0 71.8	98.6 76.1	100.6 74.6	103.3 81.8	109.8 71.6	109.3 114.9 65.2
Japan United States United Kingdom	107.9 70.9 28.0	100.4 87.0 45.0	107.0 81.8 41.0	93.0 71.8 46.0	98.6 76.1 39.0	100.6 74.6 43.0	103.3 81.8 35.0	109.8 71.6 58.0	114.9 65.2 55.9
Japan United States United Kingdom Canada	107.9 70.9 28.0 30.4	100.4 87.0 45.0 28.5	107.0 81.8 41.0 33.0	93.0 71.8 46.0 34.1	98.6 76.1 39.0 24.6	100.6 74.6 43.0 19.5	103.3 81.8 35.0 26.9	109.8 71.6 58.0 30.3	109.3 114.9 65.2 55.9 29.7
Japan United States United Kingdom Canada Stock of international students (3 main destinations, '000s)	107.9 70.9 28.0 30.4 2009	100.4 87.0 45.0 28.5 2010	107.0 81.8 41.0 33.0 2011	93.0 71.8 46.0 34.1 2012	98.6 76.1 39.0 24.6 2013	100.6 74.6 43.0 19.5 2014	103.3 81.8 35.0 26.9 2015	109.8 71.6 58.0 30.3 2016	114.9 65.2 55.9 29.7 2017
Japan United States United Kingdom Canada Stock of international students (3 main destinations, '000s) Total	107.9 70.9 28.0 30.4 2009 451.9	100.4 87.0 45.0 28.5 2010 500.5	107.0 81.8 41.0 33.0 2011 580.5	93.0 71.8 46.0 34.1 2012 624.8	98.6 76.1 39.0 24.6 2013 657.0	100.6 74.6 43.0 19.5 2014 703.9	103.3 81.8 35.0 26.9 2015 746.1	109.8 71.6 58.0 30.3 2016 788.9	114.9 65.2 55.9 29.7 2017 844.3
Japan United States United Kingdom Canada Stock of international students (3 main destinations, '000s) Total United States	107.9 70.9 28.0 30.4 2009 451.9	100.4 87.0 45.0 28.5 2010 500.5	107.0 81.8 41.0 33.0 2011 580.5	93.0 71.8 46.0 34.1 2012 624.8	98.6 76.1 39.0 24.6 2013 657.0 231.9	100.6 74.6 43.0 19.5 2014 703.9 266.1	103.3 81.8 35.0 26.9 2015 746.1 291.1	109.8 71.6 58.0 30.3 2016 788.9 309.8	114.9 65.2 55.9 29.7 2017 844.3 321.6
Japan United States United Kingdom Canada Stock of international students (3 main destinations, '000s) Total United States Australia	107.9 70.9 28.0 30.4 2009 451.9	100.4 87.0 45.0 28.5 2010 500.5	107.0 81.8 41.0 33.0 2011 580.5	93.0 71.8 46.0 34.1 2012 624.8	98.6 76.1 39.0 24.6 2013 657.0 231.9 88.0	100.6 74.6 43.0 19.5 2014 703.9 266.1 90.2	103.3 81.8 35.0 26.9 2015 746.1 291.1 97.4	109.8 71.6 58.0 30.3 2016 788.9 309.8 112.3	109.5 114.9 65.2 55.9 29.7 2017 844.3 321.6 128.5
Japan United States United Kingdom Canada Stock of international students (3 main destinations, '000s) Total United States Australia United Kingdom	107.9 70.9 28.0 30.4 2009 451.9	100.4 87.0 45.0 28.5 2010 500.5	107.0 81.8 41.0 33.0 2011 580.5	93.0 71.8 46.0 34.1 2012 624.8	98.6 76.1 39.0 24.6 2013 657.0 231.9 88.0 81.8	100.6 74.6 43.0 19.5 2014 703.9 266.1 90.2 86.2	103.3 81.8 35.0 26.9 2015 746.1 291.1 97.4 91.5	109.8 71.6 58.0 30.3 2016 788.9 309.8 112.3 89.3	114.9 65.2 55.9 29.7 2017 844.3 321.6 128.5 96.5

Emigration to non-OECD destinations									
Stock of workers overseas (5 main destinations, '000s)	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total	812.0	850.0	853.0	1,006.0	1,027.0	969.0	979.0	997.0	992.0

Flows of workers deployed (5 main destinations, '000s)	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total	452.0	512.0	527.0	562.0	530.0	494.0	522.0	492.0	487.0

Net migration rate (per thousand)	1985-1990	1990-1995	1995-2000	2000-2005	2005-2010	2010-2015	2015-2020	2020-2025	2025-2030
	-0.08	-0.13	-0.06	-0.30	-0.32	-0.22	-0.25	-0.26	-0.24
Remittance inflows (current \$ million)	2011	2012	2013	2014	2015	2016	2017	2018	2019e
	61,576	57,987	59,491	62,332	63,938	61,000	63,876	67,414	68,398

PHILIPPINES										
KEY INDICATORS										
				Population (million)	GDP per capita (constant 2010 \$)	GDP growth rate (annual, %)		Labor mark (201	et indicators 9,%)	
2009				92.4	2,101	1.4	Employmer (15+, total)	nt / population	ratio	58.3
2019				108.1	3,338	6.0	Unemployr	nent (% of tot	al labor force)	2.2
immigrant Population in Philippines				Stock of fore	aign-born por	(0+)	Foreign-b	orn populatic	n 15 years ol	d and over
				Total	% of	% women	% 15-24	% 25-64	% low-	% high-
2000				209	0.41	49	15.8	53.4	54.8	11.9
2015				212	0.21	48	12.5	52.7		
2019				219	0.20	48	12.7	52.9		
Stock of foreign workers by sector, 2014			Total							
Number of foreign workers ('000s)			91.4							
% of total employment			0.1							
Stock of international students (*000s)		2010	2011	2012	2013	2014	2015	2016	2017	2018
Inflows of foreign workers (000c)	2010	2011	4.3	3.3 2012	2014	2015	2016	2017	2019	2019
innows of foleigh workers (0003)	14.3	171	2012	2013	2014	2013	42.0	45.3	54.2	158.7
	11.5	17.1	21.0	22.7	21.5	20.1	12.0	15.5	51.2	150.7
Emigration from Philippines to OECD countries										
				2000				2015/16		
Stock of persons born in Philippines living in 0	DECD count	ries	Men	Women	Total		Men	Women	Total	
Emigrant population 15+ ('000s)			745.8	1,192.1	1,938.0		1,349.3	2,200.0	3,549.3	
Recent emigrants 15+ ('000s)			107.5	168.8	276.4		16.4	16.3	16.3	
15-24 (% of population 15+)			13.9	9.6	11.3		12.3	7.5	9.3	
25-64 (% of population 15+)			75.7	80.5	78.6		73.6	76.7	75.5	
Iotal emigration rates (%)			3.I E 2	4.8	3.9		3.9	6.I 16.2	5.0	
Emigration rates of the high-educated (%)			5.5	0.1	0.0		11.0	10.2	14.5	
Legal migration flows to OECD (5 main destina	tions. (000s)	2010	2011	2012	2013	2014	2015	2016	2017	2018
Total	,,	168.7	162.6	160.8	153.3	162.1	183.2	173.3	175.3	168.9
United States		58.2	57.0	57.3	54.4	50.0	56.5	53.3	49.1	47.3
Canada		38.6	36.8	34.3	29.5	40.0	50.8	41.8	40.9	35.1
Japan		13.3	13.6	15.4	16.4	19.9	24.0	26.2	29.6	31.3
Australia		10.2	10.7	12.8	11.0	10.3	11.9	12.0	12.1	10.9
Rep. of Korea		9.1	9.6	9.9	12.0	10.7	9.9	9.5	9.0	10.1
Stock of international students (3 main destina	tions, '000s)	2009	2010	2011	2012	2013	2014	2015	2016	2017
Iotal		7.8	8.8	9.8	10.3	10.1	11.4	12.4	I3.8 E 1	14.5 F 2
Australia						2.0	4.2	4.4	3.0	3.0
New Zealand						0.4	0.6	1.1	1.5	1.4
Emigration to non-OECD destinations										
Stock of workers overseas (5 main destination	s, '000s)	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total		2,158.0	2,220.0	2,285.0	2,320.0	2,447.0	2,240.4	2,338.6	2,299.1	2,202.0
Saudi Arabia		487.7	457.3	505.0	575.4	604.4	533.2	594.0	558.4	493.2
United Arab Emirates		315.1	330.8	351.9	361.9	3/9.3	356.2 125 5	357.8	361.1 142.9	290.7 165 2
Kuwait		92.8	93.2	105.1	123.0	144.4	123.5	152.0	145.0	105.2
Taipei.China		82.0	86.6	100.5	111.4	110.1	116.5	88.9	125.4	147.5
Flows of workers deployed (5 main destination	ıs, '000s)	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total		1,318.7	1,435.2	1,469.2	1,430.9	1,437.9	1,669.5	1,595.4	1,524.5	1,516.2
Saudi Arabia		316.7	330.0	382.6	402.8	594.0	460.1	433.6		
United Arab Emirates		235.8	259.6	261.1	246.2	227.1	276.3	265.5		
Singapore		146.6	172.7	173.7	140.2	141.5	171.0	162.2		
Hong Kong, China		129.6	131.7	130.7	105.7	85.7	116.5	144.5		
Qatar		100.5	104.6	94.2	114.5	133.2	141.3	122.6		
Net migration rate (pertheusand)		1085_1000	1000 1000	1005_2000	2000-2005	2005-2010	2010_2015	2015_2020	2020-2025	2020 2025
Nermigration rate (per thousand)		-1 08		-1995-2000	-3.03	-3 44	-170	-0.63	-0.59	-0.61
		1.00	2.12	2.31	5.05	5.17	1.70	0.05	0.37	0.01
Remittance inflows (current \$ million)		2011	2012	2013	2014	2015	2016	2017	2018	2019e
		23,054	24,610	26,717	28,691	29,799	31,142	32,810	33,809	35,167

REPUBLIC OF KOREA					
KEY INDICATORS					
	Population (million)	GDP per capita (constant 2010 \$)	GDP growth rate (annual, %)	Labor market indicators (2019, %)	
2009	49.3	21,724	0.8	Employment / population ratio (15+, total)	60.4
2019	51.7	28,606	2.0	Unemployment (% of total labor force)	4.1
Immigrant Population in Republic of Korea					

			Stock of for	eign-born pop	ulation (0+)	Foreign	nd over		
			Total ('000s)	% of population	% women	% 15-24	% 25-64	% low- educated	% high- educated
2000			244	0.52	41	26.8	66.4		
2015			1,143	2.25	44	18.6	76.5		
2019			1,164	2.27	44	12.9	80.2		
Stock of foreign workers by sector, 2019	Total	Agriculture, forestry and fishing	Mining and quarrying	Manufacturing	Construction	Wholesale and Retail, Food, Lodging	Electricity, Transportation, Telecommunication, Finance		
Number of foreign workers ('000s)	863.2	52.1	0.3	399.1	95.0	164.5	14.0		
% of total employment	2.2	2.7			. –	2.0	0.4		
1 /	3.Z	3./	2.0	9.0	4.7	2.8	0.4		
Stock of international students ('000s)	3.2 2010	3./ 2011	2.0 2012	9.0 2013	4.7 2014	2.8 2015	0.4 2016	2017	2018
Stock of international students ("000s)	2010 59.2	3.7 2011 62.7	2.0 2012 59.5	9.0 2013 55.5	4.7 2014 52.5	2.8 2015 54.5	0.4 2016 61.9	2017 70.8	2018 84.7

Emigration from Republic of Korea to OECD countries											
			2000				2015/16				
Stock of persons born in Republic of Korea living in OECD of	countries	Men	Women	Total		Men	Women	Total			
Emigrant population 15+ (*000s)		628.9	817.2	1,446.1		766.3	1,020.4	1,786.7			
Recent emigrants 15+ ('000s)		88.0	105.3	193.3		14.8	13.3	14.0			
15-24 (% of population 15+)		16.8	15.4	16.0		12.4	9.3	10.6			
25-64 (% of population 15+)		74.6	74.9	74.8		71.5	72.7	72.2			
Total emigration rates (%)		2.2	2.9	2.6		3.6	4.6	4.1			
Emigration rates of the high-educated (%)		2.9	4.8	3.7		3.8	5.9	4.8			
Legal migration flows to OECD (5 main destinations, '000s)	2010	2011	2012	2013	2014	2015	2016	2017	2018		
Total	77.6	72.0	71.4	75.4	71.1	66.2	73.3	73.6	76.3		
Japan	27.9	23.4	25.7	24.2	21.1	22.6	25.6	28.0	32.4		
United States	22.2	22.8	20.8	23.2	20.4	17.1	21.8	19.2	17.7		
Germany	4.1	4.8	4.9	5.5	6.3	7.2	7.7	8.2	7.9		
Canada	5.5	4.6	5.3	4.5	4.5	4.1	4.0	4.0	4.8		
New Zealand	3.2	2.6	2.2	2.1	2.5	2.6	3.1	2.9	2.9		
Stock of international students (3 main destinations, '000s)	2009	2010	2011	2012	2013	2014	2015	2016	2017		
Total					111.0	108.1	102.8	99.7	99.4		
United States					70.5	67.6	64.0	60.5	56.2		
Japan					16.5	15.0	13.5	13.0	13.1		
Australia					6.8	6.6	6.2	6.1	8.3		
Emigration to non-OECD destinations											
Stock of workers overseas (5 main destinations, '000s)	2011	2012	2013	2014	2015	2016	2017	2018	2019		
Total											

Net migration rate (per thousand)	1985-1990	1990-1995	1995-2000	2000-2005	2005-2010	2010-2015	2015-2020	2020-2025	2020-2025
	0.82	0.32	0.69	0.34	-0.64	1.60	0.23	0.39	0.59
Remittance inflows (current \$ million)	2011	2012	2013	2014	2015	2016	2017	2018	2019
	6,602	6,589	6,475	6,574	6,464	6,524	6,526	7,125	7,374

SINGAPORE					
KEY INDICATORS					
	Population (million)	GDP per capita (constant 2010 \$)	GDP growth rate (annual, %)	Labor market indicators (2019,%)	
2009	5.0	41,983	0.1	Employment / population ratio (15+, total)	67.6
2019	5.7	58,830	0.7	Unemployment (% of total labor force)	4.1
Immigrant Population in Singapore					

			Stock of for	eign-born pop	ulation (0+)	Foreign-born population, 15 years old and on			
			Total ('000s)	% of population	% women	% 15-24	% 25-64	% low- educated	% high- educated
2000			1,352	33.55	55	14.2	65.7		
2015			2,544	45.49	56	11.5	71.5		
2019			2,156	37.14	56	11.9	71.0		
Stock of foreign workers by sector, 2019	Total		Manufacturi	ng	Constr	ruction	Ser	vices	
Number of foreign workers ('000s)	1,427.5		242.5		34	1.5	83	88.2	
% of total employment	37.7		50.0		74	4.8	2	9.8	
Stock of international students ('000s)	2010	2011	2012	2013	2014	2015	2016	2017	2018
	48.6	47.9	53.0	48.9			53.1	53.2	51.8
Inflows of foreign workers ('000s)	2010	2011	2012	2013	2014	2015	2016	2017	2018

Emigration from Singapore to OECD countries									
			2000				2015/16		
Stock of persons born in Singapore living in OECD countrie	s	Men	Women	Total		Men	Women	Total	
Emigrant population 15+ ('000s)		48.5	58.1	106.6		66.4	90.0	156.4	
Recent emigrants 15+ ('000s)		9.1	10.8	19.9		19.6	18.1	18.7	
15-24 (% of population 15+)		19.3	17.0	18.0		21.2	15.3	17.8	
25-64 (% of population 15+)		76.2	78.0	77.2		70.7	71.1	71.0	
Total emigration rates (%)		3.0	3.6	3.3		2.7	3.7	3.2	
Emigration rates of the high-educated (%)		8.6	11.3	9.9		2.9	4.2	3.5	
Legal migration flows to OECD (5 main destinations, '000s)	2010	2011	2012	2013	2014	2015	2016	2017	2018
Total	6.6	9.4	9.9	8.3	9.2	7.4	7.5	12.6	12.6
United Kingdom	0.0	4.0	4.0	2.0	3.0	1.0	1.0	6.0	6.0
Australia	1.9	1.5	1.8	2.0	1.9	1.9	1.7	1.6	1.4
Japan	0.5	0.4	0.5	0.5	0.5	0.6	0.7	0.7	0.9
United States	0.8	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.8
Rep. of Korea	0.4	0.4	0.6	0.6	0.6	0.6	0.7	0.7	0.7
Stock of international students (3 main destinations, '000s)	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total	17.7	18.8	19.2	20.0	21.5	22.1	23.1	23.5	22.3
Australia					9.1	8.8	8.8	8.9	7.9
United Kingdom					5.9	6.8	7.3	7.5	7.3
United States					4.5	4.6	4.7	4.5	4.4
Emigration to non-OECD destinations									
Stock of workers overseas (5 main destinations, '000s)	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total	192.2	200.0	207.0	212.2	212.5	213.4			

Flows of workers deployed (5 main destinations, '000s)	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total									

Net migration rate (per thousand)	1985-1990	1990-1995	1995-2000	2000-2005	2005-2010	2010-2015	2015-2020	2020-2025	2025-2030
	8.38	18.22	17.03	4.47	30.71	11.83	4.72	4.53	4.38
Remittance inflows (current \$ million)	2011	2012	2013	2014	2015	2016	2017	2018	2019e

SRI LANKA									
KEY INDICATORS									
			Population (million)	GDP per capita (constant 2010 \$)	GDP growth rate (annual, %)		Labor mark (201	et indicators 19, %)	
2009			20.1	2,610	3.5	Employment / population ratio (15+, total)			51.7
2019			21.8	4,012	2.3	Unemployn	nent (% of tot	al labor force)	4.2
Immigrant Population in Sri Lanka									
			Stock of fore	eign-born pop	oulation (0+)	Foreign-b	orn populatio	on, 15 years ol	d and over
			Total ('000s)	% of population	% women	% 15-24	% 25-64	% low- educated	% high- educated
2000			40	0.21	45	3.6	63.1	41.8	13.4
2015			39	0.19	48	19.0	36.5		
2019			40	0.19	48	20.0	40.3		
Stock of foreign workers by sector, 2017		Total							
Number of foreign workers ('000s)		30.6							
% of total employment									
Stock of international students (*000s)	2010	2011	2012	2013	2014	2015	2016	2017	2018
		0.4	0.4	0.8	0.9	1.0	1.3	1.3	1.3
Inflows of foreign workers (*000s)	2010	2011	2012	2013	2014	2015	2016	2017	2018
								16.9	15.1
Emigration from Sri Lanka to OECD countries									
			2000				2015/16		
Stock of persons born in Sri Lanka living in OECD countrie	s	Men	Women	Total		Men	Women	Total	
Environment and the IF ((000-)		100.0	1477	217.0		252.5	220.0	(02 F	

Stock of persons born in Sri Lanka living in OECD countries		Men	women	Total		Men	women	Iotal	
Emigrant population 15+ ('000s)		169.2	147.7	317.0		353.5	329.0	682.5	
Recent emigrants 15+ ('000s)		26.7	30.5	57.2		13.9	16.4	15.1	
15-24 (% of population 15+)		14.6	15.2	14.9		8.6	6.6	7.6	
25-64 (% of population 15+)		79.8	76.8	78.4		81.9	82.3	82.1	
Total emigration rates (%)		2.4	2.1	2.3		4.3	3.8	4.0	
Emigration rates of the high-educated (%)		27.2	28.7	27.7		8.2	6.0	7.0	
Legal migration flows to OECD (5 main destinations, '000s)	2010	2011	2012	2013	2014	2015	2016	2017	2018
Total	41.3	35.8	34.4	30.0	30.5	31.1	30.1	27.1	24.7
Japan	1.2	1.4	1.5	1.5	2.2	3.1	4.7	5.6	4.0
Rep. of Korea	4.2	5.9	4.7	5.3	4.8	5.5	7.1	3.9	3.9
Italy	7.1	6.8	7.1	6.3	5.3	4.8	4.0	3.7	3.4
Australia	5.2	4.5	5.7	5.3	4.5	3.9	3.8	3.2	2.7
France	2.7	2.4	2.5	2.5	2.5	2.3	2.5	2.3	2.2
Stock of international students (3 main destinations, '000s)	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total	12.2	13.2	13.4	13.2	12.3	12.4	12.5	14.1	15.8
Australia					4.0	4.4	4.9	6.1	7.0
United States					3.0	2.9	2.8	3.0	3.2
United Kingdom					2.9	2.5	1.8	1.4	1.1

Net migration rate (per thousand)	1985-1990	1990-1995	1995-2000	2000-2005	2005-2010	2010-2015	2015-2020	2020-2025	2025-2030
Oman	5.4	4.9	5.3	5.8	7.1	9.7	8.9	8.3	
United Arab Emirates	39.3	38.3	48.5	50.3	43.7	40.1	36.7	32.8	32.9
Saudi Arabia	68.6	98.0	80.9	80.5	74.9	63.3	37.9	35.9	35.5
Qatar	52.7	57.5	80.7	84.6	65.1	59.5	56.6	50.8	40.8
Kuwait	50.6	44.2	42.7	43.6	38.5	32.4	37.4	47.0	43.1
Total	263.0	282.4	293.2	300.4	263.4	242.8	212.2	211.5	203.2
Flows of workers deployed (5 main destinations, '000s)	2011	2012	2013	2014	2015	2016	2017	2018	2019
Lebanon	117.0								
Qatar	133.4								
United Arab Emirates	238.6		150.0						
Kuwait	308.5		200.0						
Saudi Arabia	517.7		600.0						
Total	1,642.5	1,792.4	1,831.4	1 932.2					
Stock of workers overseas (5 main destinations, '000s)	2007	2008	2009	2010		2016	2017	2018	2019
Emigration to non-OECD destinations									

	-1.64	-2.88	-4.99	-4.69	-5.23	-4.71	-4.63	-4.03	-3.77
Remittance inflows (current \$ million)	2011	2012	2013	2014	2015	2016	2017	2018	2019e
	5,153	6,000	6,422	7,036	7,000	7,262	7,190	7,043	6,747

TAIPEI,CHINA					
KEY INDICATORS					
	Population (million)	GDP per capita (constant 2010 \$)	GDP growth rate (annual, %)	Labor market indicators (2019,%)	
2009	23.1	16,933	-1.6	Employment / population ratio (15+, total)	57.0
2019	23.6	25,893	2.7	Unemployment (% of total labor force)	3.7
Immigrant Population in Taipei,China					
	a. 1 44		1.11. (0.5		

	Stock of for	eign-born pop	ulation (0+)	 Foreign-born population, 15 years old and over 				
	Total ('000s)	% of population	% women	% 15-24	% 25-64	% low- educated	% high- educated	
2000	400	1.8	52					
2010	474	2.0	62					

Stock of foreign workers by sector, 2019		Total	Agriculture, forestry, fishing, and animal husbandry	Manuf	acturing	Constr	ruction	Social Welfar home-	e (nurses and maids)
Number of foreign workers ('000s)		718.1	12.5	43	439.7 4.4		261.5		
% of total employment		6.2	2.2	14	4.3	0.	5		
Stock of international students (*000s)	2011	2012	2013	2014	2015	2016	2017	2018	2019
	10.1	11.6	12.6	14.1	15.8	17.8	21.2	28.4	31.8
Inflows of foreign workers (*000s)	2011	2012	2013	2014	2015	2016	2017	2018	2019

Emigration from Taipei, China to OECD countries									
			2000				2015/16		
Stock of persons born in Taipei, China living in OECD count	ries	Men	Women	Total		Men	Women	Total	
Emigrant population 15+ ('000s)		191.6	238.3	429.9		226.9	318.9	545.9	
Recent emigrants 15+ ('000s)		42.5	54.0	96.4		15.3	15.7	15.5	
15-24 (% of population 15+)		22.4	17.4	19.6		11.1	9.3	10.0	
25-64 (% of population 15+)		73.7	78.5	76.4		74.1	77.9	76.3	
Total emigration rates (%)		2.2	2.7	2.4		2.2	3.0	2.6	
Emigration rates of the high-educated (%)		5.3	7.0	6.0		4.6	6.4	5.4	
Legal migration flows to OECD (5 main destinations, '000s)	2010	2011	2012	2013	2014	2015	2016	2017	2018
Total	20.6	18.1	17.5	22.1	18.1	21.7	26.0	27.8	30.1
Japan	6.6	5.6	6.6	6.6	7.7	10.8	12.2	13.7	14.9
United States	6.7	6.2	5.3	5.4	4.7	4.9	5.1	4.9	5.1
Rep. of Korea	1.4	1.6	1.6	2.0	2.0	2.0	2.3	2.5	2.8
Germany	0.0	0.0	0.0	0.0	0.0	0.0	1.7	1.9	2.0
Australia	0.8	0.8	0.8	1.0	0.9	1.0	1.1	1.2	1.1
Stock of international students (3 main destinations, '000s)	2008		2011	2012	2013	2014	2015	2016	2017
Total	31.0								

United States

United Kingdom

Australia

Emigration to non-OECD destinations									
Stock of workers overseas (5 main destinations, '000s)	2010	2011	2012	2013	2014	2015	2016	2017	2018
Total	687.0	681.0	698.0	717.0	726.0	724.0	728.0	736.0	737.0

Flows of workers deployed (5 main destinations, '000s)	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total									

Net migration rate (per thousand)	1985-1990	1990-1995	1995-2000	2000-2005	2005-2010	2010-2015	2015-2020	2020-2025	2025-2030
	0.80	-1.43	-2.31	1.84	2.18	1.46	1.27	1.01	1.00
Remittance inflows (current \$ million)	2011	2012	2013	2014	2015	2016	2017	2018	2019e

KET INDICATORS				GDP ner	GDP				
				capita	growth				
			Population	(constant	rate		Labor marke	et indicators	
2009			(111111011)	2010 \$) A 745	(annual, %)	Employme	(201)	9, 70) ratio	66.8
2007			00.9	4,745	0.7	(15+, total)	it / population	Tatio	00.0
2019			69.6	6,503	2.4	Unemployr	nent (% of tota	l labor force)	0.8
Immigrant Population in Thailand									
			Stock of for	eign-born pop	oulation (0+)	Foreign-l	oorn populatio	n, 15 years old	and over
			Total	% of	0/	0/ 15 24	0/ 25 64	% low-	% high-
2000			(000s)	population	% women	% IS-24	% 25-04	educated	educated
2000			2 / 97	2.00	49 50	50.0 16.6	47.0	04.7	9.9
2019			3,407	5.22	50	13.9	70.0		
2017			5,055	5.22	50	15.7	Trade,		
						Mining and	Transportation, Accommodation	Public administration,	
						Electricity,	Business and	Social and	
Stock of foreign workers by sector, 2019		Total, 2019	Agriculture	Manufacturing	Construction	gas and water supply	Administrative Services	and Activities	
Number of foreign workers ('000s)		1,130.6	133.7	516.8	73.5	3.7	330.2	72.6	
% of total employment		3.0	1.1	8.2	3.6	1.5	2.7	1.5	
Stock of international students ('000s)	2010	2011	2012	2013	2014	2015	2016	2017	2018
	19.1	20.2	20.3				31.6		
Inflows of foreign workers ('000s)	2010	2011	2012	2013	2014	2015	2016	2017	2018
	79.8	91.2	107.7	117.9	120.6	125.1	129.0	193.4	
Emigration from Thailand to OECD countries							004544		
Stack of neurone how in Theiland living in OECD countries		Man	2000	Tatal		Man	2015/16	Tatal	
Emigrant population 15+ (1000c)		90.8	180.0	270.8		171 1	/38.7	609.8	
Recent emigrants 15+ (1000s)		15.8	33.9	270.0		17.6	21.2	20.2	
15-24 (% of population 15+)		38.7	21.8	27.5		23.3	9.9	13.7	
25-64 (% of population 15+)		59.6	76.3	70.7		69.4	82.8	79.0	
Total emigration rates (%)		0.4	0.7	0.6		0.6	1.5	1.0	
Emigration rates of the high-educated (%)		2.4	3.1	2.8		1.4	2.9	2.2	
Legal migration flows to OECD (5 main destinations, '000s)	2010	2011	2012	2013	2014	2015	2016	2017	2018
Total	51.1	53.7	59.0	61.7	87.0	63.7	67.7	110.9	120.0
Rep. of Korea	6.9	10.3	13.8	18.3	48.3	20.1	28.5	71.5	80.3
Japan	10.9	13.6	15.4	15.4	14.3	14.5	15.4	16.4	17.1
United States	9.4	10.0	9.5	7.6	6.2	7.5	7.0	6.3	5.6
Germany	3.3	3.2	3.3	3.2	3.1	3.2	3.4	3.4	3.9
Australia	2.6	2.5	2./	3.1	2./	2.5	2.8	2./	2.5
Total	2009	2010	2011	2012	2015	2014	2015	2010	2017
	22.1	23.1	25.0	23.2	70	71	23.0 71	69	6.4
United States					6.0	62	61	6.0	61
Australia					3.2	2.9	4.8	5.7	7.4
Emigration to non-OECD destinations									
Stock of workers overseas (5 main destinations, '000s)	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total	997.3	1,039.0				153.3	168.4	154.9	149.5
Taipei,China						74.2	77.0	71.8	68.6
Malaysia							3.5		3.3
Singapore							4.3	3.5	2.7
Hong Kong, China							2.7		1.8
United Arab Emirates							3.1		1.4
Flows of workers deployed (5 main destinations, '000s)	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total	147.6	134.1	130.5	119.5	117.3	114.4	115.2	115.7	113.8
Taipei,China	47.8	39.1	34.6	37.1	34.7	35.0	35.2	33.5	29.2
Malaysia	4.3	4.4	3.9	3.2	3.3	3.3	7.1	8.2	7.9
Singapore	11.5	11.9	10.7	8.2	/.3	5.8	5.4	4.6	3.8
United Arad Emirates	9.6 २.०	7.Z	5.5	5.0	4.6	4.U 2 2	3.3 ว ว	2.3	1.9 1.9
riong kong, china	2.0	2.5	2.2	2.2	2.2	2.2	2.5	2.0	1.0

Net migration rate (per thousand)	1985-1990	1985-1990	1990-1995	1995-2000	2000-2005	2005-2010	2010-2015	2015-2020	2020-2025
	1.86	-2.09	2.34	1.17	0.18	0.49	0.28	0.28	0.27
Remittance inflows (current \$ million)	2011	2011	2012	2013	2014	2015	2016	2017	2018e
	5,256	5,657	6,585	6,524	5,895	6,270	6,720	7,463	7,075

VIET NAM					
KEY INDICATORS					
	Population (million)	GDP per capita (constant 2010 \$)	GDP growth rate (annual, %)	Labor market indicators (2019, %)	
2009	87.1	1,251	5.4	Employment / population ratio (15+, total)	75.9
2019	96.5	2,082	7.0	Unemployment (% of total labor force)	2.0

in Braiter op anation in thee than											
			Stock of for	eign-born pop	ulation (0+)	Foreign-born population, 15 years old and over					
			Total ('000s)	% of population	% women	% 15-24	% 25-64	% low- educated	% high- educated		
2000			57	0.07	42	21.0	50.5				
2015			73	0.08	42	14.0	68.0				
2019			76	0.08	42	12.9	68.6				
Stock of foreign workers by sector, 2020		Total	Agriculture	Manufacturing	Construction	Trade/ Transport/ Hospitality/ Business Services	Pub. Ad, Comm/Social/ Other Services/ Activities				
Number of foreign workers ('000s)		68.3	19.2	13.4	3.2	28.8	3.8				
% of total employment		0.0	0.0	0.0	0.0	0.0	0.0				
Stock of international students ('000s)	2011	2012	2013	2014	2015	2016	2017	2018	2019		
	3.7	4.0	3.6	2.5	2.9	5.6	4.2		7.3		
Inflows of foreign workers ('000s)	2010	2011	2012	2013	2014	2015	2016	2017	2018		
	55.4	56.9	74.0	78.4	76.3	83.6					

Emigration from Viet Nam to OECD countries

			2000			2015/16					
Stock of persons born in Viet Nam living in OECD countries	;	Men	Women	Total		Men	Women	Total			
Emigrant population 15+ ('000s)		747.4	768.6	1 515.9		1,016.5	1,179.2	2,195.7			
Recent emigrants 15+ ('000s)		63.0	86.1	149.1		8.7	12.3	10.6			
15-24 (% of population 15+)		12.5	12.1	12.3		9.4	8.2	8.8			
25-64 (% of population 15+)		81.1	79.9	80.5		76.5	76.6	76.5			
Total emigration rates (%)		2.8	2.8	2.8		2.8	3.1	3.0			
Emigration rates of the high-educated (%)		17.1	19.8	18.2		9.9	10.8	10.4			
Legal migration flows to OECD (5 main destinations, '000s)	2010	2011	2012	2013	2014	2015	2016	2017	2018		
Total	87.7	94.8	93.8	102.4	126.2	152.2	186.0	214.3	243.4		
Japan	11.9	13.9	19.5	31.7	43.0	65.9	77.5	98.6	123.3		
Rep. of Korea	22.9	27.9	24.7	22.2	28.0	30.2	40.1	48.0	56.0		
United States	30.6	34.2	28.3	27.1	30.3	30.8	41.5	38.2	33.8		
Germany	4.3	4.2	3.9	4.1	5.1	6.1	7.0	7.0	8.5		
Australia	3.8	4.8	4.8	5.7	5.2	5.1	5.4	5.5	5.2		
Stock of international students (3 main destinations, '000s)	2009	2010	2011	2012	2013	2014	2015	2016	2017		
Total	29.5	37.3	41.3	46.3	53.4	57.1	63.7	78.2	90.2		
United States					17.7	17.9	19.3	22.2	23.2		
Japan					4.2	6.1	10.6	19.2	26.8		
Australia					12.4	12.9	13.1	14.5	15.3		

Emigration to non-OECD destinations									
Stock of workers overseas (5 main destinations, '000s)	2007	2010	2011	2012	2013	2014	2017	2018	2019
Total	500.0							580.0	650.0
Taipei,China	90.0						200.0	206.2	
Malaysia	75.0		74.8			70.0			
Russian Federation	72.0								
Lao PDR	14.5				30.0				
Saudi Arabia	11.5								
Flows of workers deployed (5 main destinations, '000s)	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total	88.3	80.3	88.2	106.8	116.0	126.3	134.8	142.9	152.5
Japan	7.0	8.8	9.7	19.8	27.0	39.9	54.5	68.7	82.7
Taipei,China	38.8	30.5	46.4	62.1	67.1	68.2	67.0	60.4	54.5
Republic of Korea	15.2	9.2	5.4	7.2	6.0	8.5	5.2	6.5	7.2
Romania									3.5
Saudi Arabia									1.4
Net migration rate (per thousand)	1985-1990	1990-1995	1995-2000	2000-2005	2005-2010	2010-2015	2015-2020	2020-2025	2025-2030

	-1.03	-1.10	-0.56	-1.59	-1.86	-0.89	-0.84	-0.94	-0.86
Remittance inflows (current \$ million)	2011	2012	2013	2014	2015	2016	2017	2018	2019e
	8,600	10,000	11,000	12,000	13,000	14,000	15,000	16,000	17,000

GENERAL NOTES

- 1. All tables with top three/five destinations are ranked by decreasing order of frequency for the last year available.
- 2. Data on remittances for 2016 are estimates.
- 3. "n.a." data not available.
- 4. Educational attainment levels are defined according to the International Standard Classification of Education (ISCED 1997).
 "Low-educated" persons have completed at best lower secondary education (ISCED 0/1/2).
 "Medium-educated" have completed at best post-secondary non-tertiary education (ISCED 3/4).
 "Highly-educated" persons hold at least a first stage tertiary degree (ISCED 5/6).
- 5. The definition of non-citizen students was only used for the economies for which no data on non-resident students were available.
- 6. Data on international students in the Asian economies are only for degree programs (undergraduate and upwards) and do not include short-term language courses.
- 7. Stock of foreign workers in economy by sector reports figures for the four largest employers of foreign workers.

DATA SOURCES	
Data	Source
Key indicators	World Bank, World Development Indicators
Immigrant population in [economy]	
Total immigrant population 0+ (thousands)	United Nations, Department of Economic and Social Affairs (2019). International migrant stock: The 2019 revision
% of total population 0+	United Nations, Department of Economic and Social Affairs (2019). International migrant stock: The 2019 revision
Age structure (2000, %) (population 15+):	United Nations, Department of Economic and Social Affairs (2019). International migrant stock: The 2019 revision
Education (2000, %) (population 15+):	DIOC-E 2000
Stock of international students	UIS Education database unless otherwise specified. Break in series in 2013.
Inflows of foreign workers	ILO-ILMS
Emigrant population: persons born in economy living in OECD countries	DIOC-E 2000, DIOC 2000, DIOC 2010, DIOC 2015, Barro and Lee (2010) and Lutz et al. (2010)
Legal migrant flows	OECD International Migration Database (IMD)
International students from economy in OECD countries	OECD Education and Skills database
Net migration rate	United Nations, Department of Economic and Social Affairs, Population Division (2019). World Population Prospects: The 2019 Revision, custom data acquired via website.
Remittance inflows	World Bank, Migration and Remittances Data

METADATA		
Emigration to non-OECD destinations	Comments	Source
Bangladesh		
Stock of workers overseas in non-OECD countries		Population and Housing Census 2011
Flows of workers deployed to non-OECD countries	All totals include OECD countries and the category "others"	Bureau of Manpower, Employment and Training (BMET)
Cambodia		
Stock of workers overseas in non-OECD countries		Policy on Labour Migration for Cambodia, ILO and Department of Employment and Manpower Cambodia, June 2010 (original source: Community Welfare Attaché of the respective Middle East country), country presentation at ADBI-OECD roundtable
Flows of workers deployed to non-OECD countries	All totals include OECD countries	ILO ILMS
Hong Kong, China		
Emigrant population living in OECD countries	Some destination countries, suc are not included	h as Germany, the United Kingdom, and the United States,
Stock of foreign workers		
Inflow of foreign workers ('000s)	Annual report, Immigration Dep .html)	artment (https://www.immd.gov.hk/eng/press/press-publications
Stock of workers in non- OECD countries		
Flows of workers deployed to non-OECD countries		
India		
Stock of workers overseas in non-OECD countries	Series break from "non- resident Indians" from "overseas Indians"	Ministry of External Affairs (Annual Reports)
Flows of workers deployed to non-OECD countries		Ministry of External Affairs, Department of Overseas Employment database, emigrate.gov.in; Country wise Emigration Clearances (ECs) obtained by RAs and Direct Recruitment by Fes, 2015-2016
		Emigrate (Ihttps://emigrate.gov.in/ext/home.action)
Indonesia		
Stock of foreign workers	Trade includes wholesale and retail trade, hotels and restaurants	Ministry of Manpower and Transmigration
Stock of workers in non- OECD countries		(i) ILO news 17 December 2010, based on BNP2TKI (http://www. ilo.org/jakarta/info/public/pr/WCMS_150358/langen/index. htm), (ii)Ministry of Manpower and Transmigration, cited in IOM Report (2010) Labour Migration from Indonesia, (iii)World Bank presentation Malaysia-Indonesia Remittance Corridor; news reports
Flows of workers deployed to non-OECD countries	All totals include OECD countries and the category "others"	BNP2TKI (Placement and Protection Agency)
Japan		
Stock of foreign workers		Status of reporting on the employment of foreign workers, and Labor Force Survey, Ministry of Health, Labour and Welfare
Inflows of foreign workers		Statistics on Legal Migrants, Immigration Bureau of Japan

Lao PDR		
Stock of foreign workers		IOM
		Lao PDR Labour Force Survey 2017, Lao PDR Statistics Bureau, Ministry of Planning and Investment, June 2018
Inflows of foreign workers	Number of work permits issued in 2011	Department of Skills Development and Employment, Ministry of Labour and Social Welfare
Flows of workers deployed to non-OECD countries		ILO-ILMS
Malaysia		
Stock of foreign workers	Figure for agriculture includes plantation	Department of Statistics Malaysia
Mongolia		
Stock of foreign workers		National Statistics Office of Mongolia
Flows of workers deployed to		Control Statistical Organization of Myanmar
non-OECD countries		
Stock of workers in non- OECD countries		Central Statistical Organization of Myanmar
Nepal		
Flows of workers deployed to non-OECD countries	All totals include OECD countries	Department of Foreign Employment, for Nepalese Fiscal Years
Pakistan		
Stock of workers in non- OECD countries	Figures are for stocks of Pakistanis overseas (including workers, students and other categories). We assume that for the Gulf countries, most of this figure represents migrant workers. All totals include OECD countries	Bureau of Emigration and Overseas Employment
Flows of workers deployed to non-OECD countries	All totals include OECD countries	Bureau of Emigration and Overseas Employment
People's Republic of China		
Stock of foreign workers		Ministry of Science and Technology
Emigrant population living in OECD countries	Some destination economies, such as Germany and the United States, include Taipei,China and Hong Kong, China data	
International students in OECD countries	Figures include those for Taipei,China	
Stock of workers in non- OECD countries		Ministry of Commerce
Flows of workers deployed to non-OECD countries		Ministry of Commerce. Brief Statistics on China's Overseas Labor Service Cooperation

Philippines		
Inflows of foreign workers	New permits delivered to foreign workers	ILO-ILMS, Department of Labor and Employment
Stock of workers in non- OECD countries		The Philippine Statistics Authority
Flows of workers deployed to non-OECD countries	All totals include OECD countries, new and repeat deployments	ILO-ILMS, Philippine Overseas Employment Administration
Republic of Korea		
Stock of foreign workers		Korean Statistical Information Service
Stock of foreign workers		Ministry of Manpower
Sri Lanka		
Stock of workers in non- OECD countries		Institute of Policy Studies (2008): International Migration Outlook, Sri Lanka (original source: Bureau of Foreign Employment); Sri Lanka Country Study by Judith Shaw (original source: SLBFE 2005); Policy on Labour Migration for Cambodia, ILO and Department of Employment and Manpower Cambodia, June 2010
Flows of workers deployed to non-OECD countries	All totals include OECD countries	Bureau of Foreign Employment, country presentation at ADBI-OECD roundtable
Taipei,China		
Key indicators		National Statistics
Stock of foreign workers		Ministry of Labor
Stock of international students		Ministry of Education
Emigrant population living in OECD countries	Some destination countries, such as Australia, Germany and the United States, are not included	
International students in OECD countries	Number of students obtaining visas from foreign nations	Ministry of Education
Stock of workers in non- OECD countries	All totals include OECD countries	
Thailand		
Stock of foreign workers	Only total is the number for 2018	ILO-ILMS
Stock of workers in non- OECD countries	Includes illegal workers	ILO-ILMS, Overseas Employment Administration Division
Flows of workers deployed to non-OECD countries	All totals include OECD countries	Overseas Employment Administration Division
Viet Nam		
Stock of foreign workers		MOLISA
Stock of workers in non- OECD countries		MOLISA, country presentation at ADBI-OECD-ILO roundtable
Flows of workers deployed to non-OECD countries		ILO-ILMS, MOLISA, country presentation at ADBI-OECD-ILO roundtable

ANNEX 2

COMPARATIVE TABLES

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Afghanistan	17	20	15	13	13	16	15	11	13	18	24	29	35	34	45	139	153	105	102
Azerbaijan	1	2	5	4	4	4	5	3	3	3	6	4	4	4	5	6	23	28	30
Bangladesh	23	24	19	22	30	37	42	34	40	50	50	50	42	43	47	51	51	52	54
Bhutan	0	0	0	0	0	0	0	0	1	3	9	14	13	11	9	7	5	5	4
Brunei Darussalam	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cambodia	4	5	5	5	6	7	11	9	10	9	10	12	15	16	16	17	20	20	19
People's Republic of China	282	334	335	322	367	438	503	518	530	460	508	531	504	547	555	541	553	561	565
Georgia	1	2	7	7	8	11	10	9	8	8	8	9	10	11	12	14	19	22	21
Hong Kong, China	10	12	13	12	10	8	10	8	8	6	9	7	6	9	7	7	14	17	17
India	113	151	161	145	192	213	206	213	215	227	253	243	229	241	263	268	278	311	355
Indonesia	29	32	33	31	27	35	30	27	31	22	25	29	31	36	35	35	39	39	48
Japan	34	38	39	35	36	42	34	32	29	34	32	34	37	37	34	37	35	35	34
Kazakhstan	5	4	17	15	12	9	8	7	7	7	8	9	7	9	11	12	19	25	31
Republic of Korea	59	69	62	54	57	66	68	72	79	78	76	71	71	75	70	65	73	74	76
Kyrgyz Republic	1	1	3	3	3	3	3	4	3	3	4	3	3	3	3	4	11	14	15
Lao People's Democratic Republic	2	2	2	1	2	2	4	4	3	3	3	3	2	2	2	3	3	3	3
Malaysia	11	14	12	13	16	11	12	20	24	20	22	17	21	23	19	22	16	20	19
Maldives	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mongolia	6	6	4	7	8	11	15	15	15	9	10	9	10	9	8	15	15	20	20
Myanmar	2	3	3	3	3	5	11	10	10	23	19	24	27	23	23	27	29	30	27
Nepal	4	3	5	6	8	9	14	17	19	23	25	30	33	39	42	47	49	49	51
Pakistan	54	59	49	47	73	74	83	74	76	77	100	106	84	73	78	99	96	92	92
Philippines	165	188	195	192	211	192	173	169	158	164	168	161	160	152	158	181	173	175	169
Singapore	6	6	6	5	6	7	7	7	7	5	7	9	9	8	9	7	7	13	13
Sri Lanka	23	21	22	24	23	28	28	21	33	33	41	36	35	30	29	31	30	27	25
Tajikistan	0	0	0	0	0	1	1	1	1	1	1	1	1	1	2	2	4	5	5
Taipei,China	16	21	21	15	20	17	32	33	22	24	20	18	17	22	18	22	26	28	30
Thailand	32	35	34	35	36	47	51	48	47	47	50	53	59	61	87	64	68	111	120
Timor-Leste	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	1	1	1	1
Turkmenistan	0	0	0	0	0	1	1	1	1	1	2	1	1	1	0	1	9	21	36
Uzbekistan	8	6	8	11	8	9	11	12	20	13	16	16	19	19	21	21	33	45	43
Viet Nam	52	60	64	55	66	78	82	88	98	76	87	95	94	102	125	152	186	214	243
Total Asia	960	1,117	1,139	1,083	1,245	1,379	1,470	1,465	1,511	1,449	1,593	1,621	1,578	1,645	1,734	1,896	2,038	2,162	2,266

Table A2.1: Inflows from Asia to the OECD by Nationality ('000s)

Source: OECD International Migration Database.

				Bang	adesh				India							
	2012	2013	2014	2015	2016	2017	2018	2019	2012	2013	2014	2015	2016	2017	2018	2019
Gulf Cooperation C	ouncil co	untries														
United Arab Emirates	215,452	14,241	24,232	25 271	8,131	4,135	3,235	3,318	141,138	202,016	224,033	225,718	163,731	149,962	112,059	76,112
Saudi Arabia	21,232	12,654	10,657	58,270	143,913	551,308	257,317	399,000	357,503	354,169	329,937	308,380	165,356	78,611	72,399	161,103
Oman	170,326	134,028	105,748	129,859	188,247	89,704	72,504	72,654	84,384	63,398	51,318	85,054	63,224	53,332	36,037	28,392
Kuwait	2	6	3,094	17,472	38,188	49,604	27,637	12,299	55,868	70,072	80,419	66,579	72,402	56,380	57,613	45,712
Bahrain	21,777	25,155	23,378	20,720	72,167	19,318	811	133	20,150	17,269	14,220	15,623	11,964	11,516	9,142	9,997
Qatar	28,801	57,584	87,575	123,965	120,382	82,012	76,560	50,292	63,096	78,367	75,935	59,384	30,619	24,759	34,471	31,810
Other Middle East																
Jordan	11,726	21,383	20,338	22,093	23,017	20,449	9,724	20,347	1,819	1,462	2,133	2,047	2,742	2,341	1,941	3,941
Lebanon	14,864	15,098	16,640	19,113	15,095	8,327	5,991	4,863	288	281	313	341	316	110	109	160
Israel																
Asia, OECD																
Japan	420	41	55	99	165	145	163	229								
Rep. of Korea	1,447	2,121	1,748	2,359	1,980	1,829	2,287	1,647								
Asia, non-OECD																
Singapore	58,657	60,057	54,750	55,523	54,730	40,401	41,393	49,829								
Malaysia	804	3,853	5,134	30,483	40,126	99,787	175,927	545	21,241	22,388	22,926	20,908	10,604	14,002	16,370	10,633
Taipei,China																
Thailand									9	15	53	10	1	0	6	24
Hong Kong, China																
Brunei Darussalam	5,038	5,971	6,633	6,354	5,836	8,587	4,480	3,628								
Indonesia									11	38	29	6	1	10	10	
India																
People's Republic of China																

Table A2.2: Outflows of Workers from Asian Economies, by Destination

				Indo	nesia				Nepal							
	2012	2013	2014	2015	2016	2017	2018	2019	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19
Gulf Cooperation C	ouncil co	untries														
United Arab Emirates	35,571	44,505	17,962	7,619	2,575	1,667	726	578	34,503	58,586	55,426	53,094	52,793	57,887	60,244	62,776
Saudi Arabia	40,655	45,394	44,325	23,000	13,538	6,471	5,894	7,018	68,103	96,903	86,613	96,887	138,529	72,892	40,962	46,080
Oman	8,836	10,719	19,141	6,766	1,014	1,085	749	471	1,884	3,931	3,952	3,470	3,059	3,066	3,059	2,722
Kuwait	2,518	2,534	1,714	310	987	1,162	1,172	782	9,165	17,376	20,196	9,634	10,049	13,134	17,555	15,995
Bahrain	6,328	5,384	5,472	2,570	123	125	86	130	3,100	4,255	4,418	4,168	3,146	3,911	4,862	4,633
Qatar	20,380	16,237	7,862	2,460	1,355	1,037	587	217	44,883	103,932	128,550	124,050	129,038	121,128	103,179	75,024
Other Middle East																
Jordan	106	0	0	103	65		7	48					1,232	2,745	1,944	1,458
Lebanon													167	146	22	11
Israel													189	132	118	58
Asia, OECD																
Japan	3,293	3,042	2,428	468	279	538	458	486					3,844	2,238	761	959
Rep. of Korea	13,593	15,374	11,848	5,501	5,912	3,728	6,905	6,193					80	90	27	22
Asia, non-OECD																
Singapore	41,556	34,655	31,680	20,895	17,700	13,379	18,324	19,354					89	148	127	206
Malaysia	134,023	150,236	127,827	97,635	87,616	88,991	90,671	79,663	96,272	158,663	210,009	196,497	60,979	95,244	104,209	9,999
Taipei,China	81,071	83,544	82,665	75,303	77,087	62,823	72,373	79,574					0			
Thailand	1,035	1,041	717	90	6	6	11						21	26	31	30
Hong Kong, China	45,478	41,769	35,050	15,322	14,434	68,103	73,917	70,840					360	175	175	88
Brunei Darussalam	13,146	11,269	11,616	9,993	8,152	6,623	5,707	5,639					150	158	144	143
Indonesia													6	1	5	1
India	535	409	203	68	97											
People's Republic of China	1,967	2,055	915	108	65	84	22						181	186	269	448

	Pakistan								Philippines							
	2012	2013	2014	2015	2016	2017	2018	2019	2012	2013	2014	2015	2016	2017		
Gulf Cooperation C	Gulf Cooperation Council countries															
United Arab Emirates	182,630	273,234	350,522	326,986	295,647	275,436	208,635	211,216	259,546	261,119	246,231	227,076	276,278	265,498		
Saudi Arabia	358,560	270,502	312,489	522,750	462,598	143,363	100,910	332,713	330,040	382,553	402,837	406,089	460,121	433,567		
Oman	69,407	47,794	39,793	47,788	45,085	42,362	27,202	28,391	16,048	16,577	15,880	22,274	27,579	25,399		
Kuwait	5	229	132	164	770	773	493	126	75,286	67,856	70,098	86,019	109,615	107,604		
Bahrain	10,530	9,600	9,226	9,029	8,226	7,919	5,745	8,189	22,271	20,546	18,958	21,428	21,429	21,388		
Qatar	7,320	8,119	10,042	12,741	9,706	11,592	20,993	19,327	104,622	94,195	114,511	133,169	141,304	122,619		
Other Middle East																
Jordan	279	345	328	321	282	285	170	205	3,025	2,223	3,393	7,253	9,970	7,063		
Lebanon	23	15	57	33	42	24	27	12	1,227	2,874	3,010	3,694	3,959	4,179		
Israel									4,582	4,385	4,590	2,288	6,392	6,879		
Asia, OECD																
Japan	62	44	69	82	102	153	258	391	9,947	10,936	12,815	14,161	21,363	21,924		
Rep. of Korea	7	12	46	13	17	9	13	25	8,979	11,664	11,958	11,418	13,592	13,479		
Asia, non-OECD																
Singapore	47	42	76	68	33	544	65	82	172,690	173,666	140,205	141,453	171,014	162,223		
Malaysia	1,309	2,031	20,577	20,216	10,625	7,174	9,881	11,323	38,407	34,088	31,451	26,199	33,178	33,194		
Taipei,China									41,492	41,145	58,681	62,598	65,364	69,235		
Thailand									9,204	8,659	6,653	7,204	9,321	10,405		
Hong Kong, China	17	20	38	29	38	54	57	60	131,680	130,686	105,737	85,704	116,467	144,535		
Brunei Darussalam	74	67	48	85	85	212	225	187	14,907	17,000	11,478	14,088	10,099	14,925		
Indonesia									5,166	5,489	5,007	3,880	5,302	4,984		
India											466	581		386		
People's Republic of China	220	155	254	355	482	457	854	1,252	9,969	9,829	6,229	6,564	9,166	9,369		

	Sri Lanka							Thailand								
	2012	2013	2014	2015	2016	2017	2018	2019	2012	2013	2014	2015	2016	2017	2018	2019
Gulf Cooperation Council countries																
United Arab Emirates	38,234	48,502	50,347	43,666	40,124	36,667	32,836	32,866	7,245	5,495	5,038	4,623	4,014	3,270	2,326	1,931
Saudi Arabia	97,993	80,887	80,480	74,894	63,389	37,745	35,866	35,478	517	509	446	36	358	297	220	199
Oman	4,889	5,317	5,759	7,082	9,748	8,865	8,345		298	280	260	245	370	288	295	306
Kuwait	44,229	42,740	43,552	38,473	32,415	37,410	46,951	43,089	1,792	1,729	1,626	2,448	1,265	1,703	1,917	1,391
Bahrain	4,533	4,547	3,979	3,722	3,222	3,002	2,922		1,106	969	888	853	904	807	641	601
Qatar	57,478	80,724	84,622	65,139	59,527	56,637	50,774	40,785	2,623	2,392	2,449	2,273	1,562	904	554	482
Other Middle East																
Jordan	10,387	7,060	6,197	4,809	3,870	3,925	4,163							13	17	16
Lebanon	3,945	3,537	3,058	2,604	2,640	2,408	2,229							42	35	33
Israel	1,768	1,944	2,010	1,986	2,274	2,498			5,126	8,393	7,618	7,144	8,629	7,494	8,260	9,122
Asia, OECD																
Japan	112	118	88	106	144	402			8,596	6,904	7,614	7,705	8,610	9,196	9,180	9,600
Rep. of Korea	5,629	5,402	6,686	6,967	8,609	5,807	5,409		10,393	11,758	9,835	189	12,609	12,609	12,476	12,529
Asia, non-OECD																
Singapore	980	1,265	1,470	1,461	1,840	1,795	1,917		11,864	10,728	8,191	7,265	5,843	5,399	4,553	3,819
Malaysia	2,691	3,297	3,312	3,239	2,916	1,996	2,455		4,441	3,852	3,237	3,318	3,263	7,141	8,182	7,919
Taipei,China									39,128	34,631	37,105	34,738	35,027	35,199	33,546	32,204
Thailand	2				11	16										
Hong Kong, China	449	513	468	493	573	636	584		2,533	2,225	2,209	2,185	2,160	2,296	2,028	1,770
Brunei Darussalam	11	15	12	9	14	9	8		2,697	2,489	1,944	1,846	1,461	1,299	1,109	1,109
Indonesia					20	21			2,480	3,210	3,103	2,538	1,967	1,724	1,636	1,355
India	97	11	136	121	187	157			2,480	3,210	3,103	1,860	1,646	1,468	1,432	1,391
People's Republic of China	6	3	5	11		10			923	1,169	725	405	261	398	287	231

	Viet Nam							Myanmar								
	2012	2013	2014	2015	2016	2017	2018	2019	2012	2013	2014	2015	2016	2017	2018	2019
Gulf Cooperation Council countries																
United Arab Emirates	1,731	2,075	831	286	136				39	0	14	77	271	127	214	323
Saudi Arabia	2,360	1,703	4,191	3,975	16											
Oman	154	25	57	86												
Kuwait	440	31	30	54	40	9			1	0	0	0		0	0	
Bahrain	11	16	9													
Qatar	105	206	850	455					10	77	15	0	73	135	87	116
Other Middle East																
Jordan	20	0	0											0	296	1,115
Lebanon																
Israel	210	141	484	268	250											
Asia, OECD																
Japan	8,775	9,686	19,766	27,010	39,938	54,504	`68737	82,703	0	36	518	1,678	2,384	3,331	3,889	6,690
Rep. of Korea	9,228	5,446	7,242	6,019	8,482	5,178	6,538	7,215	3,669	4,003	4,482	4,475	5,731	5,676	6,105	4,756
Asia, non-OECD																
Singapore	107	149	92	31	29				452	791	501	431	707	355	504	467
Malaysia	9,298	7,564	5,139	7,354	2,079	1,551	1,102	454	26,921	25,905	25,892	35,022	33,920	3,305	24,773	78,781
Taipei,China	30,533	46,368	62,124	67,121	68,244	66,926	60,369	54,480								
Thailand	0	0	0	0		0			37,347	36,029	33,188	53,578	102,722	148,942	198,017	238,082
Hong Kong, China	0	0	0		11	0										
Brunei Darussalam	74	18	0	0		0										
Indonesia	0	0	0	0		0										
India																
People's Republic of China	0	4	0		7	0										

	Cambodia										
	2012	2013	2014	2015	2016	2017	2018	2019			
Gulf Cooperation C	ouncil cou	untries									
United Arab Emirates											
Saudi Arabia											
Oman											
Kuwait											
Bahrain											
Qatar											
Other Middle East											
Jordan											
Lebanon											
Israel											
Asia, OECD											
Japan	102	111	518	1,399	1,562	2,280	3,002	3,945			
Rep. of Korea	8,132	8,820	7,671	7,073	7,371	5,967	4,870	5,938			
Asia, non-OECD											
Singapore	0	111	190	99	87	138	287	135			
Malaysia	180	90	470	807	123	27	53	69			
Taipei,China											
Thailand	26,390	13,468	15,839	16,163	76,433	87,909	60,333	57,823			
Hong Kong, China											
Brunei Darussalam											
Indonesia											
India											
People's Republic of China					0	15					

Source: ILO ILMS. National sources.

135
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020e
Afghanistan									90	141	378	179	219	347	253	349	628	823	804	829	785
Azerbaijan	57	104	163	156	204	623	790	1,268	1,518	1,255	1,410	1,893	1,990	1,733	1,846	1,270	643	1,133	1,226	1,275	1,146
Bangladesh	1,968	2,105	2,858	3,192	3,584	4,315	5,428	6,562	8,941	10,521	10,850	12,071	14,120	13,867	14,988	15,296	13,574	13,502	15,566	18,363	19,758
Bhutan							2	3	4	5	8	10	18	12	14	20	34	43	58	57	54
Brunei Darussalam																					
Cambodia	103	113	123	128	147	164	184	186	188	142	557	611	855	1,003	1,103	1,185	1,200	1,295	1,433	1,525	1,446
People's Republic of China	758	1,209	2,354	4,620	6,640	23,626	27,565	38,395	47,743	41,600	52,460	61,576	57,987	59,491	62,332	63,938	61,000	63,876	67,414	68,398	59,507
Georgia	206	219	226	248	359	446	627	883	1,065	1,112	1,184	1,547	1,770	1,945	1,986	1,459	1,521	1,794	2,034	2,258	1,926
Hong Kong, China	136	153	121	120	240	297	294	317	355	348	340	352	367	360	372	387	399	437	425	451	335
India	12,883	14,273	15,736	20,999	18,750	22,125	28,334	37,217	49,977	49,204	53,480	62,499	68,821	69,970	70,389	68,910	62,744	68,967	78,790	83,332	75,916
Indonesia	1,190	1,046	1,259	1,489	1,866	5,420	5,722	6,174	6,794	6,793	6,916	6,924	7,212	7,614	8,551	9,659	8,907	8,990	11,215	11,666	9,835
Japan	773	1,250	1,127	811	774	905	1,177	1,384	1,732	1,595	1,684	2,132	2,540	2,364	3,734	3,325	3,830	4,443	4,369	4,374	4,189
Kazakhstan	68	85	111	42	57	62	84	143	126	198	226	180	283	341	401	294	384	560	618	506	458
Korea, Rep. of	4,524	4,516	5,135	5,875	5,935	5,200	4,850	5,155	6,978	6,000	5,854	6,602	6,589	6,475	6,574	6,464	6,524	6,526	7,125	7,374	7,495
Kyrgyz Republic	2	5	30	70	179	313	473	704	1,223	982	1,266	1,709	2,031	2,278	2,243	1,688	1,995	2,486	2,689	2,411	1,875
Lao People's Democratic Republic	1	1	1	1	1	1	4	6	18	38	42	110	203	170	188	189	189	243	239	285	271
Macau, China			47	48	53	53	55	54	52	48	47	48	47	49	37	40	28	25	23	22	7
Malaysia	342	367	435	571	802	1,117	1,365	1,556	1,329	1,131	1,103	1,211	1,294	1,423	1,580	1,644	1,604	1,649	1,686	1,659	1,410
Maldives	2	2	2	2	3	2	3	8	6	5	3	3	3	3	3	4	4	4	4	4	4
Mongolia	1	27	69	79	203	177	155	178	225	200	266	250	324	257	255	261	260	273	441	561	536
Myanmar	102	116	105	84	117	129	115	81	55	54	115	127	275	1,644	1,864	2,005	2,346	2,578	2,840	2,400	2,229
Nepal	111	147	678	771	823	1,212	1,453	1,734	2,727	2,983	3,464	4,217	4,793	5,584	5,889	6,730	6,612	6,928	8,294	8,250	7,392
Pakistan	1,075	1,461	3,554	3,964	3,945	4,280	5,121	5,998	7,039	8,717	9,690	12,263	14,007	14,629	17,244	19,306	19,819	19,856	21,193	22,245	24,136
Philippines	6,924	8,760	9,735	10,239	11,468	13,733	15,496	16,437	18,851	19,960	21,557	23,054	24,610	26,717	28,691	29,799	31,142	32,810	33,809	35,167	33,339
Singapore																					
Sri Lanka	1,154	1,170	1,296	1,423	1,574	1,976	2,167	2,507	2,925	3,337	4,123	5,153	6,000	6,422	7,036	7,000	7,262	7,190	7,043	6,749	6,681
Tajikistan			79	146	252	564	976	1,514	2,278	1,566	2,021	2,722	3,222	3,698	3,384	2,259	1,867	2,237	2,183	2,322	2,066
Taipei,China																					
Thailand	1,697	1,252	1,380	1,607	1,622	1,187	1,333	1,635	1,898	3,808	4,433	5,256	5,657	6,585	6,524	5,895	6,270	6,720	7,466	7,077	6,086
Turkmenistan							14	30	50	34	35	35	37	40	30	16	9	4	2	1	1
Uzbekistan							898	1,693	3,007	2,071	2,858	4,276	5,693	6,689	5,653	3,062	2,462	3,374	3,689	4,150	3,320
Viet Nam	1,340	1,100	1,770	2,100	2,310	3,150	3,800	6,180	6,805	6,020	8,260	8,600	10,000	11,000	12,000	13,000	14,000	15,000	16,000	17,000	15,686
Total	35,417	39,479	48,394	58,787	61,906	91,076	108,486	138,003	173,907	169,723	194,252	225,431	240,746	252,366	264,912	265,102	256,630	272,944	297,874	309,881	287,101

Table A2.3: Migrant Remittance Inflows in Asian Economies, in \$ million(2000-2019)

Source: KNOMAD data on remittances.

Table A2.4: Net Migration Rate

(per 1,000 population)

	1985- 1990	1990- 1995	1995– 2000	2000- 2005	2005- 2010	2010- 2015	2015- 2020	2020- 2025	2025- 2030
Afghanistan	-25.1	40.3	-8.9	6.4	-7.6	3.3	-1.7	-1.5	-1.4
Azerbaijan	-4.6	-3.1	-2.8	0.9	1.2	0.2	0.1	0.0	0.0
Bangladesh	-0.5	-1.5	-1.2	-2.2	-4.5	-3.0	-2.3	-2.1	-1.9
Bhutan	0.6	-22.0	0.1	2.0	-3.3	0.1	0.4	0.4	0.4
Brunei Darussalam	3.1	3.4	2.7	0.2	-1.2	-0.4	0.0	0.0	0.0
Cambodia	-1.9	8.3	6.1	-0.6	-4.3	-2.0	-1.9	-1.7	-1.6
People's Republic of China	-0.1	-0.1	-0.1	-0.3	-0.3	-0.2	-0.2	-0.3	-0.2
Georgia	-1.6	-22.8	-28.0	-6.9	-5.8	-4.7	-2.5	-2.5	-2.6
Hong Kong, China	8.0	5.3	11.8	1.9	2.6	2.1	4.0	3.1	4.6
India	0.0	-0.1	-0.1	-0.3	-0.4	-0.4	-0.4	-0.3	-0.3
Indonesia	0.3	0.0	-0.1	-1.1	-1.1	-0.4	-0.4	-0.4	-0.3
Japan	-0.5	0.1	-0.2	0.3	0.4	0.6	0.6	0.5	0.4
Kazakhstan	-8.4	-17.9	-16.4	0.6	-0.4	1.9	-1.0	0.0	0.0
Republic of Korea	0.8	0.3	0.7	0.3	-0.6	1.6	0.2	0.4	0.6
Kyrgyz Republic	-6.1	-12.4	-1.2	-6.9	-2.9	-3.3	-0.6	-1.5	-1.4
Lao People's Democratic Republic	0.0	-2.7	-5.3	-5.3	-3.7	-3.5	-2.1	-2.0	-1.8
Macau, China	21.3	12.0	13.7	20.3	16.6	14.9	8.0	7.4	7.0
Malaysia	5.1	3.0	4.7	5.5	5.7	1.7	1.6	1.5	1.3
Maldives	-2.5	-2.6	-0.8	11.6	10.5	28.4	22.8	-16.3	-8.7
Mongolia	0.0	-7.9	-4.5	-1.2	-0.8	-0.3	-0.3	-0.3	-0.2
Myanmar	-1.0	-3.3	-2.4	-5.1	-5.4	-2.0	-3.1	-0.7	-0.3
Nepal	-2.4	0.8	-4.1	-6.2	-7.4	-15.1	1.5	5.1	0.4
Pakistan	0.3	-1.8	0.7	-0.9	-0.4	-1.1	-1.1	-0.9	-0.7
Philippines	-1.1	-2.1	-2.6	-3.0	-3.4	-1.7	-0.6	-0.6	-0.6
Singapore	8.4	18.2	17.0	4.5	30.7	11.8	4.7	4.5	4.4
Sri Lanka	-1.6	-2.9	-5.0	-4.7	-5.2	-4.7	-4.6	-4.0	-3.8
Tajikistan	-1.3	-8.4	-7.9	-4.5	-4.1	-3.4	-2.2	-2.0	-1.8
Taipei,China	n.a.								
Thailand	1.9	-2.1	2.3	1.2	0.2	0.5	0.3	0.3	0.3
Timor-Leste	0.0	0.0	-18.9	-5.9	-7.3	-4.9	-4.3	-3.6	-3.3
Turkmenistan	-2.3	2.2	-3.0	-5.4	-2.5	-1.9	-0.9	-0.6	-0.6
Uzbekistan	-3.7	-3.0	-2.0	-1.9	-1.0	-0.4	-0.3	-0.3	-0.2
Viet Nam	-1.0	-1.1	-0.6	-1.6	-1.9	-0.9	-0.8	-0.9	-0.9

Source: World Population Prospects: The 2019 Revision (UNDESA) https://population.un.org/wpp/DataQuery/ (accessed December 2020).

	Numer of interr	national tertiary st	udents enrolled	Of which at master's and doctoral level	As a percentage of total tertiary	Number of graduates at master's and doctoral level	
	2017	2018	% change	2018	2018	2018	
Afghanistan	7,515	8,054	7	3,314	41	524	
Azerbaijan	18,866	21,960	16	6,433	29	1,015	
Bangladesh	24,556	27,225	11	16,523	61	3,166	
Bhutan	1,418	1,927	36	971	50	270	
Brunei Darussalam	2,047	1,800	-12	235	13	170	
Cambodia	3,542	3,773	7	1,455	39	598	
People's Republic of China	844,381	904,475	7	388,338	43	108,065	
Georgia	5,618	5,747	2	2,428	42	490	
Hong Kong, China	35,943	35,906	0	5,981	17	2,694	
India	290,616	316,883	9	210,611	66	32,189	
Indonesia	36,179	37,279	3	13,841	37	5,443	
Japan	29,051	29,106	0	9,090	31	2,088	
Kazakhstan	11,630	12,083	4	4,298	36	1,177	
Korea, Rep. of	99,366	96,533	-3	29,206	30	3,451	
Kyrgyz Republic	3,553	3,590	1	1,352	38	242	
Lao People's Democratic Republic	935	972	4	433	45	174	
Malaysia	50,110	49,862	0	8,699	17	3,953	
Maldives	467	469	0	180	38	130	
Mongolia	8,759	10,092	15	4,583	45	925	
Myanmar	5,490	6,815	24	1,788	26	571	
Nepal	52,071	68,681	32	22,221	32	4,424	
Pakistan	36,804	40,710	11	22,107	54	5,850	
Philippines	14,538	15,925	10	5,117	32	1,472	
Singapore	22,298	22,164	-1	5,371	24	2,344	
Sri Lanka	15,775	18,877	20	7,340	39	1,638	
Tajikistan	1,467	1,483	1	473	32	78	
Taipei,China							
Thailand	26,431	27,235	3	11,184	41	4,336	
Turkmenistan	10,954	12,800	17	825	6	85	
Uzbekistan	6,489	8,389	29	2,662	32	454	
Viet Nam	90,158	104,306	16	22,243	21	6,791	
Total	1,757,027	1,895,121	8	809,304	43	194,807	
Rest of the world	1,816,547	1,862,030	3	838,732	45	245,002	
All origin economies	3,573,574	3,757,151	5	1,648,036	44	439,809	
Share of Asia (%)	49	50		49		44	

Table A2.5: International Students in OECD Countries by Nationality

Note: Data for graduates in Japan, Republic of Korea, and the United States are not available.

Source: OECD. Online Education Database. www.oecd.org/education/database.htm (accessed December 2020).

LABOR MIGRATION IN ASIA

IMPACTS OF THE COVID-19 CRISIS AND THE POST-PANDEMIC FUTURE

This report analyzes the labor migration trends in Asia and puts them in the context of economic and policy developments and the changes wrought by the coronavirus disease (COVID-19) pandemic. It examines the policy settings in the major origin and destination countries of labor migrants and the medium- and long-term factors that will shape the future of labor migration in Asia. It further provides important recommendations for building back better in a post-pandemic world.

This analysis draws partly on discussions that took place at the "10th ADBI-OECD-ILO Roundtable on Labor Migration: Future of Labor Migration in Asia: Challenges and Opportunities in the Next Decade," held in Bangkok, Thailand, in February 2020, an annual event co-organized by the Asian Development Bank Institute, the Organisation for Economic Co-operation and Development, and the International Labour Organization that brings together regional experts and policy makers. In response to the COVID-19 pandemic, the publication focuses on the pandemic's impacts on labor mobility.

The report offers up-to-date comparative statistics on labor migration flows, including evidence on the impacts of COVID-19 on flows and remittances. Two statistical annexes offer detailed country fact sheets and coverage of intra-Asia and cross-regional migration flows. The report also includes discussions on the future of labor migration in the aftermath of the pandemic and the role of technology and digitalization in labor mobility and its management.

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International Labour Organization

The ILO is a specialized United Nations agency with a constitutional mandate to protect migrant workers, and it does so as part of its overaching goal of advancing social justice and promoting decent work. Its objectives are to promote rights at work, encourage decent employment opportunities, enhance social protection, and strengthen dialogue on work-related issues. Its tripartite structure provides a unique platform for promoting decent work. Making fair migration a reality is high on the ILO agenda, at the global level and in the Asia-Pacific region. The ILO has 187 member states.

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